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A Review of CZMA Section 309 Enhancement Grants Program

State and Territory Profiles

October 1994

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prepared by:

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ALABAMA

The §309 Priority Enhancement Needs identified by Alabama cover two issues:

- Wetlands
- Special Area Management Planning

The problems identified in the §309 priority enhancement issues areas are summarized as follows:

Wetlands

Alabama has lost significant wetland resources in the coastal area as a result of past development activities and natural processes. Wetlands have historically regarded as lands of low economic value and were subsequently drained and filled to support other uses such as agriculture, forestry, industry, and residential development.

Coastal Alabama has ample available vacant land; infrastructure capabilities; and an aggressive business community encouraging new industry and commerce initiatives, as well as resulting increased residential growth. Therefore, it is reasonable to expect that there will be increasing pressures on environmental resources such as wetlands.

Special Area Management Planning

The areas of Cotton Bayou, Ono Island, and Orange Beach are being severely affected by the negative cumulative and secondary impacts associated from coastal growth. The surrounding area has a history of resource and use conflicts. There is increasing residential and recreational density (boat traffic). Evidence appears to indicate that there is a decrease in SAVs and that the waterway ingress and egress is extremely congested and threatens safe navigability. Further, the increase in docks and piers is not only a safety hazard, but also ecologically detrimental to the area's coastal resources. Water quality is also severely threatened by the number of failing and leaking septic systems in those same areas.

Also, the multiplicity of local and state and federal authorities jurisdictions and regulatory authorities, compounded with aggressive development interests, prevents effective coordination and cooperation in addressing coastal development on an ecosystem basis.

List of Alabama §309 Projects for FY 1992 and FY 1993

Wetlands

AL(1) Wetlands Surveillance Project, WF, FY92 -- \$35,000, FY93 -- \$14,000

AL(2) Expanded Subdivision Review Project, PSM, FY92 -- \$20,000

Special Area Management Planning

AL (3) Cotton Bayou/Ono Island Special Area Management Plan, WF, FY92 --\$17,800, FY93 -- \$30,800

AL(4) Shoreline Management: Policy Implementation Project, WF, FY92 -- \$8,000

A summary evaluation of each §309 project is attached.

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205-242-5515 (Fax)

Contacts: Gil Gilder (shoreline management) 205-242-5502
Cherie Arcenaux (SAMP) 205-861-2141
John Carlton (wetlands) 205-450-3400

Title: AL (1) Wetlands Surveillance Project, WF, FY92--\$35,000, FY93--\$14,000

Project Description: The purpose of this project is to address weaknesses in the Alabama Coastal Management Program (ACMP) related to the loss of wetlands by unpermitted activities, a result of the lack of field personnel and citizen understanding of the state jurisdictional authority over wetlands. The project involves two components: (1) developing a reporting methodology which will include mapping the wetlands and inventorying wetlands permitted activities; and (2) developing an inservice educational program to familiarize state personnel with the issues associated with wetlands loss and the identification of illegal activities.

Length of Project: 2 years (October 1, 1993 to September 30, 1995)

Project Benchmarks

FY92 -- None

FY93 - None

Project Completion Status

Abandoned.

State agencies too short-staffed to complete tasks.

Project Results

a) *Proposed Program Change:* A Memorandum of Understanding (MOU) among the state regulatory agencies. (MOU)

b) *Summary of Results/Enhancement:* none

c) *Project Products To Date:* none

d) *Other Benefits:* none

e) *Unexpected Results:* none

f) *Impediments to Project Success:* Project was abandoned because original tasks set out in the §309 strategy could not be completed involving state agency staff. If citizenry were to be substituted in training program, project would have become more focused on public education and therefore not qualified under §309. Re-programming too cumbersome.

g) *Is the Project of National/State/Local Importance?* Would have been state and local.

**Title: AL (2) Develop and Adopt Expanded Subdivision Review Project, PSM,
FY92--\$20,000**

Project Description: The purpose of this project is to lower the threshold for subdivision review by the state regulatory agency-Alabama Department of Environmental Management (ADEM) from 25 acres to 5 acres. There are four components to this project: (1) survey of potential subdivision sites to be affected by the subdivision revision; (2) incorporate reduced threshold in ADEM regulations; (3) submit the revised regulatory changes to the Alabama Environmental Management Commission (EMC); and (4) submit the revised regulations to NOAA's Office of Ocean and Coastal Resource Management (OCRM) as a routine program implementation (RPI) to the Alabama Coastal Management Program.

Length of Project: 2 years (September 1, 1992 to August 31, 1994)

Project Benchmarks:

FY92

- survey of recent subdivision developments completed

FY93

- ADEM submitted a proposal to EMC lowering threshold review of subdivisions from 25 acres to 5 acres
- ADEM proposed amending regulations to apply wetlands criteria, stormwater regulations, and erosion control measures

FY94

- Public hearings held on regulatory revisions March, 1994
- EMC adopted subdivision regulations 5/25/94, became effective 6/30/94

Project Completion Status:

Completed

Project Results

- Proposed Program Change:* Final adoption of subdivision standards which would change the threshold review of subdivisions by ADEM from 25 acres to 5 acres. Additionally, wetlands criteria, stormwater management guidelines and erosion control guidelines will be included in the review. Consequently, this program change will introduce environmentally sensitive land use and design (such as clustering, buffers, limitations upon impervious coverage, on-site recharge, etc.).(L)
- Summary of Results/Enhancement:* Increased ability to manage projects which could potentially threaten coastal resources.
- Project Products To Date:* Amended regulation on subdivision review (ADEM Administrative Code R. 335-8-2-11) effective 6/30/94.
- Other Benefits:* none
- Unexpected Results:* none
- Impediments to Project Success:* Difficulty in detecting projects subject to the new criteria, especially those not requiring another state/federal review or permit.

- g) *Is the Project of National/State/Local Importance?* State important because it provides better management of valuable coastal resources.

Title: AL(3) Cotton Bayou/Ono Island Special Area Management Plan, WF, FY92 -- \$17,800, FY93 -- \$30,800

Project Description: The purpose of this project is to develop a special area management plan (SAMP) for the Cotton Bayou/Ono Island/Orange Beach Area. The SAMP will be spearheaded by Alabama's Department of Economic and Community Affairs (ADECA), Coastal Programs Division. The following components are a necessary part of the project: identify goals and objectives; complete a resource inventory; form a task force to assist in the development of the SAMP; complete the SAMP; implement SAMP by creating ordinances and statutes; evaluate success of SAMP on an annual basis.

Length of Project: 2 years (October 1, 1992 to September 30, 1994)

*no-cost extension will be requested.

Project Benchmarks

FY92

- task force organized
- SAMP boundaries delineated
- public hearings held to solicit citizen input
- resources inventoried
- issues and policies identified

FY93

- SAMP task force meetings held quarterly
- base maps acquired
- GIS maps prepared which include critical areas
- conceptual land and resources use plan developed
- MOAs
- Final report submitted to OCRM

Project Completion Status:

Not on schedule, but still likely to be completed.

Project Results

- a) *Proposed Program Change:* To develop and implement a special area management plan for Cotton Bayou/Ono Island/Orange Beach area. (LP)
- b) *Summary of Results/Enhancement:* Alabama will be receiving an Advanced Identification of Wetlands (ADID) from EPA which will enable them to modify/justify changes to the state land use plan.
- c) *Project Products To Date: Final Report : Orange Beach/Ono Island/Cotton Bayou Pre-SAMP Process* sent to OCRM for review
- d) *Other Benefits:* none
- e) *Unexpected Results:* none
- f) *Impediments to Project Success:* Local politics extremely difficult (e.g. no zoning, no comprehensive master plan, planning board completely comprised of developers--no balance).
- g) *Is the Project of National/State/Local Importance?* State and local.

Title: AL(4) Shoreline Management: Policy Implementation Project, WF, FY92 -- \$8,000

Project Description: During FY 1992, Alabama used §306 funds to prepare a Shoreline Management Plan. Based on a technical evaluation of past and projected beach erosion data, the plan was supposed to provide an economic evaluation of the value of the Gulf beaches. Using §309 funds, Alabama will draft legislation or MOUs necessary for the implementation of the Shoreline Management Plan.

Length of Project: 2 years (October 1, 1992 to September 30, 1994)

Project Benchmarks

FY92

- Data collection and analysis (aerial photos, beach surveys, wave observations) preliminary report.
- Meet with communities.
- Meet with COE and Legislative Delegation
- Develop draft legislation/MOAs
- Meet with communities and Legislative Delegation
- Develop quarterly/final reports of legislation and activities.

FY93

- Final report completed, public meetings, (in progress) Management strategies, draft authorities.

Project Completion Status:

Not on schedule, but still likely to be completed.

Project Results

- a) *Proposed Program Change:* Draft legislation creating MOAs to manage the Alabama coastline through the creation of a board/commission; delegation of authority to an existing agency or establishing a set of agreements between existing agencies. (MOA)
- b) *Summary of Results/Enhancement:* None
- c) *Project Products To Date: Report, Alabama Shoreline Change Rates: 1970-1993.*
- d) *Other Benefits:* Involvement of general public, local governments and the Corps of Engineers.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Lack of time to implement program which will be a process of education and persuasion of the local governments and state legislature.
- g) *Is the Project of National/State/Local Importance?* State and local.

ALASKA

The §309 priority enhancement needs identified by Alaska cover four issues:

- Wetlands
- Cumulative and Secondary Impacts
- Government and Energy Facilities Siting
- Special Area Management Plans (SAMPs)

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Wetlands

Seventy-four percent of all U.S. remaining wetlands are in Alaska and up to 80 percent of the entire land and water surface area of Alaska is covered by wetlands. Alaska's communities are mostly located along the coast and river areas where wetlands are abundant, thus creating wetlands management conflicts. Alaska has one of the fastest population growth rates, making wetlands adjacent to population centers and resource extraction activities subject to development pressures. A majority of the extensive and diverse wetlands of Alaska have not been classified, evaluated or mapped impeding state and local implementation of wetlands regulations especially mitigation policies.

Cumulative and Secondary Impacts

Alaska's resource-based industrial development and population centers have resulted in localized air and water quality degradation. Increased development creates a potential for future contamination of the largely pristine waters and important fish and wildlife habitats. Alaska coastal communities lack guidance and cumulative/secondary impact regulations to assess, minimize and avoid future impacts of coastal development.

Government and Energy Facilities Siting

Alaska is one of the few states where Outer Continental Shelf (OCS) oil and gas leasing is occurring. Major concerns include Bowhead whale subsistence hunting, oil spill contingency plans and legal questions about state jurisdiction at the lease sale phase following CZMA Reauthorization Act amendments overriding Secretary of the Interior et al v. California. New federal and state regulations to mesh federal lease sales with State coastal management requirements are not in place, making it difficult to complete consistency reviews. Legal issues, especially jurisdictional, are expected to intensify since the oil industry has challenged state authority over activities in federal waters.

Special Area Management Plans

Alaska's CZMP provides for special area planning. Plans have varied considerably due to minimal state guidance. The relationship between district special area plans and other local plans has been unclear.

A List of Alaska §309 Projects for FY92 and FY93:

Wetlands

AK (1) Assessment and Development of Guidelines for Restoration and Enhancement of Aquatic Habitat, WF, FY92--\$89,000, FY93--\$85,000

AK (2) North Slope Gravel Pit Performance Standards Project, WF, FY92--\$59,000

AK (3) Wetlands Mitigation Project: Site Selection and Design Guidelines, WF, FY92--
\$55,000

AK (4) ACMP Regulations to Identify and Protect High Value Wetlands, WF, FY93--
25,000

Cumulative and Secondary Impacts

AK(5) Analysis of Existing State Authorities Regarding Cumulative and Secondary
Impacts of Development , WF, FY92--\$25,000

AK(6) Assessment and Control of Cumulative and Secondary Impacts of Coastal Uses on
Fish Habitat along the Kenai River, PSM, FY92--\$95,000, FY93--\$114,000, FY94--
\$122,500

AK(7) Regulations to Consider Cumulative and Secondary Impacts During Project
Renewals and Modifications, WF, FY93--\$20,000

AK(8) Assessment and Control of Cumulative and Secondary Impacts of Coastal Growth
and Development at Selected Areas of the Kenia Peninsula, WF, FY93--\$63,000

Government and Energy Facilities Siting

AK(9) Review of State and Federal Authorities Relating to OCS Oil and Gas Lease Sales,
PSM, FY92-- \$78,000

Special Area Management Plans

AK(10) Special Area Management Planning Regulations and Manual, WF, FY93--
\$35,000, FY94---\$42,000

A summary evaluation of each project is attached.

State Contacts: Alaska Coastal Program

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Contact: Sara L. Hunt 907-465-8788

Title: AK (1) Assessment and Development of Guidelines for Restoration and Enhancement of Aquatic Habitat, WF, FY92--\$89,000, FY93--\$85,000

Project Description: The purpose of this project is to conduct a comprehensive analysis of restoration and enhancement projects undertaken to date in Alaska to be used in adopting guidelines with standard conditions for restoration/enhancement projects. This project involves several components: (1) identify and field evaluate sites; (2) develop standard evaluation criteria; (3) develop guidelines for different types of restoration/enhancement projects using an interagency process; (4) present a workshop to coastal districts; (5) prepare a written report identifying ways to implement the guidelines; (6) amend 6AAC 50.050 to by adding standard conditions for restoration and enhancement projects to the "B-List" in the Classification of Agency Approval; (7) Coastal Districts incorporate Guidelines as enforceable mitigation policies in revised district plans.

Length of Project: 2 Years (July 1, 1992- June 30, 1994)

Project Benchmarks

FY92

- Research restoration/enhancement projects/literature search/bibliography
- Develop evaluation criteria/ report on case histories and projects/ agency review

FY93

- Identify successful projects/ Draft Guidelines/ Model District Policies/ reg. revisions/ public review
- Identify restoration projects for B-list/ workshop/B-List Project Proposals/Final Report

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

Project Results

a) Proposed Program Change: Not Accomplished

- 1) Amend 6AAC 50.050 to by adding standard conditions for restoration and enhancement projects to the "B-List" in the Classification of Agency Approval. Report Findings indicate it is not workable to develop "statewide" standard conditions. These "standard conditions" should be developed at the local or regional level. (RR)
- 2) Coastal Policy Council formally adopt Guidelines- Dropped from revised §309 Strategy in November 1993. (deleted)
- 3) Coastal Districts incorporate Guidelines as enforceable mitigation policies in revised district plans. Unpredictable when districts will adopt guidelines, but expect it to occur in the out-years FY94-96. Too soon to judge results. (LP)

b) Summary of Results/Enhancement: None

- c) *Project Products:*
- 1) "Restoration and Enhancement of Aquatic Habitats in Alaska: Project Inventory, Case Study Selection and Bibliography," by Betsy L Parry, Celia M. Rozen and Glenn A. Seaman, Alaska Department of Fish and Game, Technical Report No. 93-8. July 1993. Juneau, AK.
 - 2) "Restoration and Enhancement of Aquatic Habitats in Alaska: Case Study Reports, Policy Guidance and Recommendations," Technical Report No. 94-3, by Betsy L. Parry and Glen A. Seaman, Alaska Department of Fish and Game, July 1994. Juneau, AK.
- d) *Other Benefits:* No
- e) *Unexpected Results:* See below
- f) *Impediments to Project Success:* Local conditions vary too much to come up with statewide B list Proposals.
- g) *Is Project of National/State/Local Importance:* All three.

Title: AK(2) North Slope Gravel Pit Performance Standards Project, WF, FY92--\$59,000

Project Description: The purpose of this project is to develop formal standards that recognize site-specific engineering and environmental constraints for gravel mine sites in the North Slope oil fields. This project involves several components: (1) adding standard conditions for siting and post-mining reclamation to the "B-List" in the Classification of Agency Approvals under 6 AAC 50.050; (2) adding guidelines on reclamation techniques to the "B-List" during annual ABC List revisions; and (3) model enforceable policies for coastal districts.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks
FY92

- 1) Data Collection/Literature Review/Project Work
 - complete literature review; report on case histories/projects; agency review
- 2) Develop Draft Performance Standards/Evaluation Criteria/ Draft Guidelines/Model District Policies
 - draft guidelines/policies/reg. revisions; public/agency review; Final report
- 3) Id. Restoration Projects/Develop Blist Proposals/Workshop
 - B-List project proposals; workshop and conference; Final Report

FY93/94 (not with §309 funds)

- 4) State review of B-List Project Proposals
 - public review, CAC approval; OCRM approval

Project Completion Status
FY92 Work - Completed

Project Results

a) *Proposed Program Change:* Not Accomplished, but expect to be accomplished. Revised B-list proposals to be submitted by September 30, 1994. Should be completed by Spring of 1995.

- 1) Adding standard conditions for siting and post-mining reclamation to the "B-List" in the Classification of Agency Approvals under 6 AAC 50.050.- in progress (RR)
- 2) Adding guidelines on reclamation techniques to the "B-List" during annual ABC List revisions in progress (PG)
- 3) Regulatory revisions to the ACMP Habitat Standard (6 AAC 80.130); (4) incorporation of the Standard as an enforceable policy in North Slope Borough's coastal program.- dropped (RR)

b) *Summary of Results/Enhancement:* None Yet.

Formal standards, when adopted, will recognize site-specific engineering and environmental constraints for gravel mine sites on the North Slope Coastal Plain.

c) *Project Products*

- 1) "ADF & G Flooded Gravel Mine Studies Since 1986 and a Arctic Grayling Experimental Transplant into a Small Tundra Drainage: A Synthesis," Technical Report No. 93-6, by S. M. Roach, Alaska Department of Fish and Game, April 1993, Juneau, AK.
- 2) "North Slope Gravel Pit Performance Guidelines," Technical Report No. 93-9, by Robert F. McLean, Alaska Department of Fish and Game, July 1994, Juneau, AK.
- 3) "Decision Matrices to Guide Gravel Pit Siting, Operation and Reclamation Planning."
- 4) "Conceptual Model North Slope Borough Coastal District Policies"
- 5) "Proposed General Concurrence (B-list) ACMP."

d) *Other Benefits:* No

e) *Unexpected Results:* No

f) *Impediments to Project Success:* No

g) *Is Project of National/State/Local Importance:* State

Title: AK(3) Wetlands Mitigation Project: Site Selection and Design Guidelines, WF, FY92--\$55,000

Project Description: The purpose of this project is to develop sites and designs for off-site compensatory mitigation projects and guidelines for on-site mitigation to be used to implement the enforceable mitigation policies of the Juneau Wetlands Management (JWMP), approved by the Alaska Coastal Policy Council in 1991 and OCRM in 1992. The project results will serve as a basis for compensatory mitigation projects initiated by the City and Borough of Juneau (CBJ) through a Mitigation Bank, as well as mitigation projects required by wetland developers under conditions of their project approvals. This project involves: (1) development of wetland mitigation sites, designs and guidelines; (2) adoption by the CBJ as an implementation tool of the JWMP; (3) approval by CPC and OCRM as routine program implementation change to the JWMP; and (4) summary of project methodology and results for technology transfer to other communities.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)
FY92-No Cost Grant Extension Approved through December 1993

Project Benchmarks
FY92

- Literature review/Meetings on Wetlands Mitigation
- Public Workshop w/ Juneau Wetlands Review Board/Agencies/Public to set wetlands mitigation goals; prioritize off-site wetland mitigation sites/projects; compile on-site mitigation guidelines; prepare preliminary project designs/cost estimates
- complete project designs/costs est./draft/final report/public review
- City and Borough of Juneau (CBJ) staff prepare report summarizing process/methods/results/final report

FY93 (Using §306 funds)

- City and Borough of Juneau (CBJ) approve final report
- CPC approval; OCRM approval as RPI; Lt. Gov. filing

Project Completion Status
FY92 Work - Completed

Project Results

a) Proposed Program Change: Partially Accomplished

City and Borough of Juneau (CBJ) Wetlands Plan was approved by OCRM in November 1993. CBJ is still negotiating with the US Army Corp of Engineers on the General Permit to implement the Plan. (P)

b) Summary of Results/Enhancement: The City and Borough of Juneau (CBJ) identified sites and designs for off-site compensatory wetlands mitigation projects and developed guidelines and procedures for designing appropriate on-site mitigation (including restoration). The project results serve as the basis for compensatory mitigation projects initiated by the CBJ through a Mitigation Bank as well as mitigation projects required of wetland developers under conditions of their project approvals.

- c) *Project Products:* "Recommendations for a Juneau Wetlands Strategy," Technical Report No. 93-7, by Janet Hall-Schempf, Alaska Department of Fish and Game, August 1993, Juneau, AK.
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is Project of National/State/Local Importance:* Local and State.

Title: AK(4) ACMP Regulations to Identify and Protect High Value Wetlands, WF, FY93--25,000

Project Description: The purpose of this project is to improve protection of high value wetlands through a revision and addition to Alaska's CMP Regulation 6 AAC 85.050 Resource Inventory. The new section will provide a definition of high value coastal wetlands (including saltwater wetlands). It will require Coastal Districts to identify high value wetlands in the resource inventory section of district management plans. Districts will be encouraged to adopt enforceable policies and the definition of high value wetlands in their coastal plans. Model policies will be developed to assist districts. When coastal districts revise their management plans to include enforceable policies to protect high value wetlands, these enforceable policies will be used by districts during the consistency review process for wetlands permits. Districts will be able to justify excluding high value wetlands from proposed general permits and stipulate appropriate measures in individual permit reviews. This project involves: (1) development of draft revisions to 6 AAC 85.050; (2) literature search and summary report; (3) draft model policies for wetlands protection; and (4) regulation change to 6 AAC 85.050, model wetland protection policies, and revised district coastal plans.

Length of Project: 1 Year (July 1, 1993 - June 30, 1994)

Project Benchmarks

FY93

- literature search, examine existing criteria for id./protect. significant functions/values of wetlands
- draft of regulation change to 6 AAC 85.050
- model enforceable policies
- public workshops, meetings, conferences
- revised regulation package, release draft regulation, public hearings
- Coastal Policy Council adoption of final regulation package

FY94/95

- follow up work with §306 funds

Project Completion Status

FY93 Work - Completed

Project Results

a) Proposed Program Change: Not Accomplished

Coastal Policy Council did not adopt regulation changes to 6 AAC 85.050. Program change expected to be accomplished as Districts develop wetland plans or revise their basic programs. (RR)

b) Summary of Results/Enhancement: The final report provides guidance on how state should proceed to addressing wetlands within existing ACMP guidelines. Bibliography and synthesis of literature on wetlands of use to coastal district use.

c) *Project Products:*

- 1) "Program To Identify and Protect High Value Wetlands in Alaska Coastal Districts," by Three Parameters+, Natural Resource Consulting, June 1994, Wasilla, AK.

d) *Other Benefits:* No

- e) *Unexpected Results:* Results of research indicate there is not a need for a new state standard. The need is for guidance/help on wetlands classification/identification and planning.

f) *Impediments to Project Success:*

The project concluded that coastal districts do not have sufficient staff resources or data to implement a wetlands protection standard in the ACMP. Rather, districts need a method of inventory/classification/categorization. Districts need access to and training in the use of scientific data and support from state and federal agencies. Ethno-botanical and subsistence uses of wetlands in Alaska should be further researched. Many high value wetlands in Alaska occur outside the coastal zone.

g) *Is Project of National/State/Local Importance:* State

Title: AK(5) Analysis of Existing State Authorities Regarding Cumulative and Secondary Impacts (CSI) of Development, WF, FY92--\$25,000

Project Description: The purpose of this project is to strengthen State and Coastal District programs to address cumulative/secondary impacts of development. This project involves several components: (1) examine current Alaska statutes and regulations in order to identify the extent to which the State has enforceable provisions addressing cumulative/secondary impacts of development activities; and (2) develop and revise ACMP regulations 6 AAC 85.060 to strengthen the Guidance for District Coastal Management Programs to address cumulative & secondary impacts for Coastal Policy Council adoption and OCRM approval as a routine program implementation change.

Length of Project: 1 Year (October 1, 1992- September 30, 1993)

Project Benchmarks

FY92

- Analysis of Alaska's Statutes/Regulations/Agency Questionnaire/Draft Report
- ACMP working group review draft/revise/Final Report
- Analysis of ACMP Regulations/Literature Review/Other State Programs/Draft Regulatory Language
- Review Draft Regulatory Language/Conference
- Revise Regulations/ CPC Approval to proceed with rule making

FY93

- Public hearings/CPC approval/OCRM approval/Lt. Gov. filing

Project Completion Status

FY92 Work - Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished. Regulatory changes to strengthen CSI Guidance for District Coastal Management Program not yet adopted by CPC. (RR)
- b) *Summary of Results/Enhancement:* The final report recommended revisions to the ACMP Guidelines for Resource Inventory (6 AAC 85.050), Resource Analysis (6 AAC 85.060) and Policies (6 AAC 85.090) and to the project consistency regulations (6 AAC 50), along with several research recommendations. Regulatory changes will be pursued through other projects in future years.
- c) *Project Products*
 - 1) "Regulation of Cumulative and Secondary Impacts in Alaska," by Glenn Gray, Alaska Division of Governmental Coordination, July 1993, Juneau, AK.
- d) *Other Benefits:* No
- e) *Unexpected Results:* Report indicated additional need for research, which resulted in revision to Alaska §309 Strategy and new projects for FY94/95.

This project stimulated discussions about cumulative impacts in Alaska, and outlined research needs and suggestions for management tools. These suggestions were

- incorporated into the 1993 revised Strategy. Regulatory changes are more likely to be pursued after 1994 CSI projects are completed.

f) *Impediments to Project Success:* Lack of research data to substantiate regulatory changes.

g) *Is Project of National/State/Local Importance:* State/ National

Title: AK(6) Assessment and Control of Cumulative and Secondary Impacts of Coastal Uses on Fish Habitat along the Kenai River, PSM, FY92--\$95,000, FY93--\$114,000, FY94--122,500

Project Description: The purpose of this project is to provide effective solutions to control cumulative/secondary impacts of development on the Kenia River, one of Alaska's largest salmon producing river systems. It is also intended to provide useful tools for state and federal agencies and coastal districts to use in assessing and controlling cumulative impacts on other river systems and aquatic habitat. This project involves several components: (1) develop and field test a cumulative assessment methodology; (2) quantify and describe cumulative/secondary impacts; (3) develop enforceable guidelines and policies, B-List projects, and regulatory/non-regulatory strategies to control the cumulative impacts of shoreland/instream development on fisheries habitat; (4) add bank stabilization, floating dock and other shoreland/instream development projects to the B-List in the Classification of Agency Approvals (6 AAC 50.050) for CPC and OCRM approval, and incorporation in the KPB coastal program.

Length of Project: 3 Years (July 1, 1992- June 30, 1995)

Project Benchmarks

FY92

- Literature search/identify study area/develop methodology/draft report
- Conduct research/map results/field verification/ report on preliminary results
- Research/evaluate non-regulatory mechanisms/ final report
- Map land ownership, probable areas of future impact/report

FY93

- Draft assessment report/public review/final report
- Develop guideline for B-List projects/public review/strategy

FY94

- State review of guidelines/public review/CPC approval/OCRM approval

FY95 (Using §306 funds)

- Revised district coastal management programs

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

Project Results

a) *Proposed Program Change:* Not Accomplished. Change scheduled for completion in 1995.

- 1) B-list Proposals should be submitted in 9/94. (PG)
- 2) Enforceable Guidelines and Policies for CSI. (PG)
- 3) Add bank stabilization, floatine pack and other shoreland/instream development projects to B-list in Classification of Agency Approvals Regulation 6AAC 50.050. (RR)

b) *Summary of Results/Enhancement:* project not completed yet.

c) *Project Products*

- 1) "A Socioeconomic Assessment of Kenai River Fish Production on the Regional Economy," by E3 consulting for the Kenai Peninsula Borough, June 1994, Soldotna, AK.
- 2) "Kenai River Fish Habitat Cumulative Impacts Project: A Report to the Policy Working Group and the Kenai Peninsula Borough," June 1994, by John Isaacs and Associates, et al. Anchorage, AK.
- 3) "The Assessment and Control of Cumulative Impacts of Coastal Uses on Fish Habitat of the Kenai River, Alaska," by Gary S. Liepitz and Gay Muhlberg, Alaska Department of Fish and Game, January 1993, Anchorage, AK.
- 4) "Non-Regulatory Mechanisms for Habitat Protection," by Mark Fink, Celia Rozen, and Glenn Seaman, Alaska Department of Fish and Game, April 1993, Juneau, AK.

d) *Other Benefits:* This project has elicited public support and involvement from all sectors within the Kenai Peninsula Borough.

e) *Unexpected Results:* High local/public interest- diverse groups working together.

f) *Impediments to Project Success:* No

g) *Is Project of National/State/Local Importance:* All three.

Title: AK(7) Regulations to Consider Cumulative and Secondary Impacts During Project Renewals and Modifications, WF, FY93--\$20,000

Project Description: The purpose of this project is to clarify review procedures and create a predictable review process for previously approved projects where modifications are proposed or permits need to be renewed; and incorporating cumulative impact guidance in the review process. This project will involve development of changes to the ACMP Project Consistency regulations (6 AAC 50) for adoption by the Coastal Policy Council. Changes will require consideration and control of project impacts during permit renewals and modifications. The program changes will include procedural standards for considering the significance of proposed project modifications, which will provide an opportunity to consider cumulative impacts.

Length of Project: 1 Year (July 1, 1993 - June 30, 1994)

Project Benchmarks

FY93

- summary of information from other states on renewal/assess process, consideration of CSI, threshold question of "significance", and development regulation procedures
- draft regulatory changes to 6 ACC 50, and CPC approval to proceed with rule making

FY94 (Using §306 funds)

- CPC adoption of final regulatory changes to 6 AAC 50
- Dept. of Law final review
- OCRM approval as RPI
- filing w/ Lt. Governor's Office

Project Completion Status

FY93 Work - Completed

FY94 Work - On Schedule with §306 funds

Project Results

a) *Proposed Program Change:* Not Accomplished. Scheduled for completion in 1995
Amendments to ACMP Project Consistency Regulations 6AAC 50. (RR)

b) *Summary of Results/Enhancement:* Project not completed yet.

c) *Project Products:* None

d) *Other Benefits:* No

e) *Unexpected Results:* Determined it was necessary to complete other §309 CSI projects before this §309 project could fully tackle CSI issues.

f) *Impediments to Project Success:* See Above. Also, program changes, especially regulatory, take a lot more time to accomplish and require much agency, district and public involvement.

g) *Is Project of National/State/Local Importance:* State and possibly National.

Title: AK(8) Assessment and Control of Cumulative and Secondary Impacts of Coastal Growth and Development at Selected Areas of the Kenai Peninsula, WF, FY93--\$63,000

Project Description: The purpose of this project is to assess and improve the effectiveness of land use controls (permit stipulations) required by state agencies and coastal districts during the ACMP consistency review process. Based upon information gained through this study, the ACMP ABC List will be expanded to include additional activities as general concurrence with standard stipulations, i.e.; certain routine activities which do not have adverse CSIs. Model enforceable policies will be proposed.

This project will identify five permitted sites on Kenai Peninsula as case studies. The project will (1) determine actual cumulative/secondary impacts (CSI) of selected past development activities, and document and map the occurrences of these impacts. Potential sites include activities such as animal grazing, utility and transmission lines, sand and gravel extraction, timber haul roads, and tideland or shoreland docks. Based on aerial photos and file data, anticipated impacts of each site will be identified. Using a methodology developed in FY92 CSI projects, each site will be assessed for CSI in the field. Impacts such as erosion, vegetation loss or change, drainage obstructions, stream diversions, and topographic changes will be documented. This project will provide a field-oriented test of how CSI's can be practically considered during ACMP consistency reviews. This project will also (2) determine which land use controls used in the past are effective for achieving resource protection and which are compatible with current land and resource protection standards, stipulations and model district enforceable policies for selected routine activities. The project will (3) add to the ABC List certain general concurrence activities which could be considered consistent with the ACMP by adding reliable, effective standard stipulations which address csi, as well as other impacts. The project will also (4) develop a methodology on how to consider cumulative and secondary impacts during the ACMP consistency review, (5) monitor and evaluate the effectiveness of controls on future land use authorization, and (6) develop model district enforceable policies to improve assessment and control of CSI's.

Length of Project: 1 Years (July 1, 1993- June 30, 1994)

Project Benchmarks

FY93

- develop preliminary methodologies to use in case studies/list of sites/anticipated impacts
- analyze field and file/map data/workshop/draft report
- finalize methodologies, report, monitoring scheme/Draft B List proposals/ Draft model district enforceable policies/comments on CSI amendments to ACMP regulations
- Final report on study results, implementation strategy/complete B List proposals/ final model district enforceable policies/ comments on CSI amendments to ACMP regulations

FY94

- B List changes through ABC List revision process established in 6 AAC 50.50, ACMP rule making incorporating changes into program.

Project Completion Status

FY93 Work - Completed- Report completed, but unsatisfactory. No specific program changes proposed.

Project Results

- a) *Proposed Program Change: Not Accomplished*
 - 1) Adopt B-list Proposals as Procedural Guidance (PG)
 - 2) Adopt Model District Enforceable Policies as Procedural Guidance (PG)
- b) *Summary of Results/Enhancement: None*
- c) *Project Products:*
 - 1) Final Report
- d) *Other Benefits: No*
- e) *Unexpected Results: See below*
- f) *Impediments to Project Success: The project resulted in a single-agency perspective of problems with land management and monitoring and enforcement in general. No clear links to the ACMP or cumulative impacts were made.*
- g) *Is Project of National/State/Local Importance: No*

Title: AK(9) Review of State and Federal Authorities Relating to OCS Oil and Gas Lease Sales, PSM, FY92--\$78,000

Project Description: The purpose of this project is to improve procedures for consistency reviews of OCS leasing sales and clarify state jurisdiction in off-shore leasing activities through extensive legal, legislative and administrative procedures analysis relating to OCS oil and gas lease sales and federal consistency provisions of the CZMA. This project involves: (1) development of improved procedures for State consistency reviews of OCS lease sales and revisions to the energy facilities standards; (2) clarification of State jurisdiction in offshore leasing activities such as oil spill contingency planning, compliance monitoring, and ACMP appeals of lease sales and (3) regulation revisions addressing consistency reviews and OCS lease sales (6 AAC 50 and 80) for CPC approval and incorporation into the ACMP.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92

- legal research, other state legislation, literature review, bibliography, report
- Review report, report summary
- working group to review interim products/draft regulations

FY93/94 (\$306 funds used)

- draft regulations, public hearings, CPC/Dept. of Law approval
- OCRM approval and filing w/ Lt. Governor

Project Completion Status

FY92 Work - Completed

Project Results

a) *Proposed Program Change:* Partially Accomplished and in progress.

- 1) Regulatory REvisions - approved (RR)
- 2) MOU on OCS Lease Sales (MOU)

b) *Summary of Results/Enhancement:* Regulation revisions addressing consistency reviews and OCS lease sales (6 AAC 50.025) were proposed and approval given by the Coastal Policy Council to proceed with formal rule making in April 1994. These regulation revisions, when approved, will codify early state agency involvement in OCS lease sales with the Mineral Management Service and establishes a Pre-Consistency Review Process for OCS lease sale activities. Final regulations and submittal to OCRM as a routine program improvement are expected by late 1994 or early 1995.

An MOU between State of Alaska and the Mineral Management Service of the US Department of the Interior is near completion. This MOU will clarify and better mesh state/federal procedures, time lines, phases of review, and provisions for extended reviews to fit within the State CZMP appeal process for exploration and OCS lease sales.

- c) *Project Products*
 - 1) "Alaska Outer Continental Shelf Oil and Gas Lease Sale Review and Coastal Zone Management," by Beth Kerttula, Alaska Department of Law and Gabrielle LaRoche, DGC, June 1993.
 - 2) MOU Between MMS and State of Alaska (draft)
- d) *Other Benefits:* MOU between MMS and Alaska
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* Rulemaking takes a long time.
- g) *Is Project of National/State/Local Importance:* National and State

**Title: AK(10) Special Area Management Planning Regulations and Manual,
WF, FY93--\$35,000, FY94---\$42,000**

Project Description: The purpose of this project is to improve/update the Alaska Coastal Management Program (ACMP) special area management planning process and products. This project, as revised in November 1993 as part of the state's revised §309 Strategy, involves several components: (1) an assessment of current ACMP special area planning; (2) an assessment of the use of special area plans in consistency review process; (3) a review of other coastal states' special area planning efforts; (4) a summary report of problems with SAMPs and solutions through a planning manual or regulations; (5) preparation and distribution of a draft manual which clarifies criteria for ACMP funding of special area planning, the ACMP planning process, state versus district program revisions, enforceable policies, plan implementation in State consistency reviews, and local implementation; (6) preparation of final manual; and (7) regulatory revisions of ACMP regulations governing current special area planning process under 6 AAC 80.160-170 and 6 ACC 85.

Length of Project: 2 Years (July 1, 1993- June 30, 1995)
Third year to be funded with §306 funds

Project Benchmarks

FY93

- assessment of current ACMP special area planning
- assessment of special area plans in consistency review process
- review of other coastal states' special area planning efforts
- summary report

FY94

- draft and final manual
- draft regulations for ACMP district/special area planning
- Coastal Policy Council endorsement to proceed with formal regulatory changes

FY95 (with §306 funds)

- CPC adoption of revised regulations
- federal OCRM approval
- filing w/ Lt. Gov. Office for incorporation. into the ACMP.

Project Completion Status

FY93 Work - Completed

FY94 Work - On Schedule

Project Results

a) Proposed Program Change: Not Accomplished-- not scheduled for completion until 1995.

- 1) Manual on ACMP criteria. (PG)
- 2) Regulation Revisions to 6 AAC 80.160-170. (RR)

b) Summary of Results/Enhancement: Project not complete yet.

- c) *Project Products:*
 - 1) "Special Area Management Under the Alaska Coastal Management Program, " by Sara L. Hunt, Alaska Division of Governmental Coordination, July 1994, Juneau, AK.
- d) *Other Benefits:* Not yet.
- e) *Unexpected Results:* Not yet.
- f) *Impediments to Project Success:* Not yet.
- g) *Is Project of National/State/Local Importance:* State, Local.

AMERICAN SAMOA

The §309 priority enhancement needs identified by American Samoa cover four issues:

- Hazards
- Marine Debris
- Wetlands
- Cumulative and Secondary Impacts (no §309 funding requested due to limited ability to affect program change as defined by OCRM and scarce resources)

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Hazard

Risks from coastal hazards are acute in American Samoa including landslides, hurricanes, flooding and storm surge, erosion, tsunamis, and earthquakes. Since land outside hazard areas is extremely limited, the presence and extension of residential, government and commercial building into more vulnerable coastal areas underscores the need for coastal hazards reduction. Hurricane "Val" ravaged American Samoa in 1991 causing up to \$100 million in damages. Twelve land slides occurred on Tutuila in 1990.

Marine Debris

Marine debris has been a recognized problem in American Samoa for many years due to an inadequate municipal solid waste management system and a traditional "throw-away" mentality. Litter control legislation, a public education program, and regular cleanup efforts are not sufficient to ameliorate the marine debris problem.

Wetlands

American Samoa's few remaining wetlands are being threatened by filling for residential and commercial development due to an acute shortage of non-sloping dry land suitable for development. American Samoa's wetlands are small, mostly disturbed wetland areas which remain significant to the local ecology. Identified weaknesses in Samoa management over submerged and tidal lands include overlapping jurisdiction or conflicts in authorities, as well as exclusions and exception in the definition, review and enforcement of wetland laws.

List of American Samoa §309 Projects for FY92 and FY93

Coastal Hazards

AS(1) Coastal Hazards Assessment and Mitigation Project, WF, FY92-- \$54,800, FY93-- \$54,800

Marine Debris

AS(2) Marine Debris Project, WF, FY92--\$10,000, FY93--\$10,000

Wetlands

AS(3) Community -Based Wetlands Management Project, PSM, FY92-- \$121,000 (This PSM did not receive follow up §309 funding in FY93. However, ASCMP used §306 funds and EPA funds to continue the work. Follow up §309 funds expected for FY94)

A summary evaluation of each §309 project is attached.

State Contact: American Samoa CZMP
Development Planning Office
Government of American Samoa
Pago Pago, American Samoa 96799
011-684-633-5155 (Phone)
011-684-633-4195 (Fax)

Contacts: Genevieve Brighthouse-Failauga (Hazards)
Karla Kluge (Wetlands)
Pauline Filemoni (Marine Debris)

Title: AS (1) Coastal Hazards Assessment and Mitigation Project, WF,
FY92--\$54,800, FY93--\$54,800

Project Description: The purpose of this project is to direct existing and future public and private development away from hazardous areas and to preserve/restore the protective functions of natural shoreline features. This project involves two components: (1) the development of new regulations governing construction in high hazard areas that include specific criteria for hazards assessment and project approvals as part of a Project Notification and Review System (PNRS); and (2) development of a village-based participatory planning and management process aimed at developing village hazard mitigation plans, village regulations and village-based enforcement procedures to reduce coastal hazards.

Length of Project: 3 Years (October 1, 1992- September 30, 1995)

Project Benchmarks

FY92

- recruitment of project staff and creation of community task force
- analysis of existing hazard plans, policies and procedures
- identification of villages for participation in hazards mitigation planning effort
- development of planning workshop materials
- development of territorial-level regulations and procedures
- final report and recommendations

FY93

- participatory planning workshops at village level and state-level task force
- development of participatory planning and management system at the village level including village-level hazard mitigation plans, regulations and enforcement procedures.

FY94

- Approval of final village plans, regulations and enforcement procedures

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed or On Schedule

Project Results

- a) *Proposed Program Change:* On track and expected to be accomplished. Final adoption and approval of new territorial regulations and village-level plans and regulations are not expected until completion of FY94 grant work September 30, of 1995. (RR, LP)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products To Date:*
 - 1) Community Tasks Force Group Meetings, Review and Comment on Program Activities. This group reviewed all island disaster management/preparedness/emergency management/ survival management plans,

- ASCMP regulations on coastal hazards, shoreline development and soil erosion, and the draft Parental Guide on Coastal Hazards for Kids.
- 2) Village Mitigation MOU. This MOU defined responsibilities for five agencies: Territorial Emergency Management Coordinating Office (TEMCO), National Weather Service, Dept. of Public Works, Soil Conservation Service, and American Samoa Coastal Management Program (ASCMP). It established the Village Mitigation Task Force, where each agency director designated a staff person to work with the ASCMP on developing village mitigation activities for the Territory.
 - 3) Draft Territory-wide Hazards Ordinance to implement American Samoa's statutory coastal hazard management responsibilities under Chapter 5, Section 24.0504. The draft ordinance outlines vulnerable areas where development is discouraged and defines village mayor responsibilities to monitor and report on activities in these hazard areas.
 - 4) Draft Village Preparedness Plans - which defines the responsibilities of the Territorial Emergency Management Coordinating Office (TEMCO), the National Weather Service and provides guidelines for villages in the event of an emergency.
 - 5) Draft Village Mitigation Plan - which provides the village community information on how to prevent slope erosion or landslides, how to construct houses and respond to natural disasters, and ASCMP advice/regulations on where to build.
 - 6) Parental Guide on Coastal Hazards for Kids; Coastal Hazard Game for Kids; three T.V. presentations on coastal hazards awareness; programs on coastal hazards; territory-wide presentations on the Parent Guide to church, youth councils, school, etc.
- d) *Other Benefits:* There has been increased public awareness and support for hazard management efforts. The village-level workshops and employment of participatory planning facilitators has been vital to the understanding, cooperation and participation of the village mayors in the coastal hazards project.
- e) *Unexpected Results:* See below
- f) *Impediments to Project Success:* 1) limited funding for travel to village islands for workshops/ meetings; 2) lack of funds to print draft plans and brochures for village review; 3) time consuming nature of village-level participatory planning and management; and 4) lack of funds for training of local village mayors in implementing village ordinances, once adopted.
- g) *Is Project of National/State/Local Importance:* Territory

Title: AS (2) Marine Debris Project, WF, FY92--\$10,000, FY93--\$10,000

Project Description: The major objective of this project is to reduce the amount of marine debris in the coastal zone of American Samoa. The project includes two components: (1) development of new marine debris legislation to establish advanced disposal fees and/or restrictions on selected imports, an increase in fines for "accumulated solid waste" and an enterprise fund to support municipal solid waste management; and (2) development of a village-based litter and marine debris reduction planning and management program aimed at developing village-based management, regulation and enforcement. Public awareness and public education to change public attitudes and build public support for new legislation and village planning efforts is also part of this project.

Length of Project: 4 Years (October 1, 1992- September 30, 1996)

Project Benchmarks

FY92

- develop MOU between ASCMP and ASEPA
- develop draft marine debris legislative package
- develop public awareness and education program and community task force

FY93

- implement public awareness and education program
- finalize marine debris Executive Order and legislation
- develop regulations, policies and procedures for advanced disposal fee and fund

FY94 & FY95

- participatory planning and management system development at Village-level leading to approval of Village plans, regulations and enforcement procedures through village-based solid waste management program to implement legislation at village level.

Project Completion Status

FY92 Work - Completed

FY93 Work - Public Awareness/Education - On Schedule, Development of Regulations, Policies, and Procedures for Advanced Disposal Fee and Fund - On Schedule Due Sept. 94 by ASEPA. Marine Debris Executive Order, Legislation, and Regulations Delayed and only 50 percent chance of adoption.

Project Results

a) *Proposed Program Change:* Not Accomplished.

- 1) It was expected that new legislation would be passed in FY93, but this did not occur. (L)
- 2) Regulations, policies and procedure for advanced disposal fill and fund. (RR, PG)
- 3) Village plant mgmt. program. (P)

b) *Summary of Results/Enhancement:* Project not completed yet.

It is expected that draft regulations and procedures for advanced disposal fee and fund will be completed in FY93 and that adoption of an executive order, legislation and implementing regulations will be pursued in FY94 and FY95.

c) Program Products

- 1) MOU between ASCMP and ASEPA to allow ASEPA to proceed with development of Legislation and regulations
- 2) Draft Legislation for increased fines, for advanced disposal fees and marine debris fund.

d) Other Benefits: None

e) Unexpected Results: Failure of Executive Order and Legislation to be adopted.

f) Impediments to Project Success: 1) low level of funding in FY92 and 93; 2) traditional "throw-away" mentality among villagers and resistance to change

Observations: This project was subcontracted from ASCMP to ASEPA, in part due to lack of funding. Without more funds and more high-level commitment, this project is unlikely to succeed. However, ASCMP will reach out to the villages for support, through workshops in FY94, to build local support for territory-wide legislation.

g) Is this Project of National/State/Local Importance: Territory-wide

Title: AS (3) Community-Based Wetlands Management Project, PSM,
FY92--\$121,000

Project Description: The objectives of this project are to protect and preserve existing levels of wetlands through improved regulations, increased levels of wetlands sustainable acreage and functions in degraded wetlands, and establishment of innovative techniques to provide wetlands protection and restoration. The project include (1) development of model village ordinances for wetland areas on Tutuila and in the Manu'a Islands; (2) special management area designations for two wetland areas on Tutuila, and delineation of four wetland areas in the Manu'a Islands as a foundation for special management area designation in the second year; (3) development of Geographic Information System (GIS) wetlands management capacity within ASCMP to support the village-based wetlands management effort; and (4) development of village-based management and regulatory systems for these special management areas.

Length of Project: 1 Year (October 1, 1992 - September 30, 1993)
6 months no cost grant extension approved through March 1994

Project Benchmarks

FY92

- recruit wetlands management project staff and convene Community Task Force
- identify villages for participation in village ordinance development and special management areas
- participatory planning for wetlands management and village ordinance development
- detailed wetlands characterization and analysis of options for traditional and economic uses
- participatory planning of special management area designation and management
- wetland delineation, characterization, and management options study for Manu'a.

Project Completion Status

FY92 Work - Completed

(note: work in FY93 continued with non-§309 funds)

Project Results

- a) *Proposed Program Change: Partially Accomplished*
- 1) Adoption of Administrative Rule on Wetlands and incorporation into ASCMP, with OCRM approval, as a formal program change. (August 1994) (RR)
 - 2) Incorporate Village Wetland Ordinance for Leone and finalize and incorporate ordinance for Nu'uuli. into ASCMP. (LP)

Part of Project Accomplished:

- 1) Incorporation of Comprehensive Wetlands Management Plans for Manu'a and Tutuila into ASCMP as a formal program change. (LP)

Not Accomplished:

- 1) The ASCMP has developed draft executive order on "no net loss" of wetlands policy which has yet to be reviewed by the Attorney General's office. (EYO)
- 2) Two special management areas nominated, Aunu'u and Malaeloa, were not designated. (P)

- b) *Summary of Results/Enhancement:* The ASCMP has developed and adopted comprehensive wetland management plans for Manu'a and Tutuila which, when implemented, will result in improved wetlands management on in these two areas.

The ASCMP has developed an Administrative Rule on Wetlands which will create buffer areas, define wetland functions and values, provide for protection of unique areas, addresses cumulative impacts in special management areas, and establish a no net-loss wetland policy. The Administrative Rule on Wetlands has proceeded through the public hearing and review process and is expected to be adopted in August 1994.

The ASCMP has developed a village wetlands ordinance for Leone which the village has accepted and has a draft ordinance for Nu'uuli which it expects the village to adopt in FY94. These will provide model wetland village ordinances for other villages to follow.

c) Project Products
FY92

- 1) Comprehensive Wetlands Management Plans for Manu'a Islands and Tutuila Island.
- 2) American Samoa's Wetlands: A concise reference to the swamps and marshes of Tutuila and Aunu'u.
- 3) Jurisdictional Delineation and Functional Assessment of Wetlands in American Samoa.
- 4) Administrative Rules for wetlands and draft executive order on wetlands.
- 5) Village wetland ordinance for Leone and draft ordinance for Nu'uuli.
- 6) Nomination of 2 new Special Management Areas (Aunu'u and Malaeloa)

d) Other Benefits: The ASCMP has and will continue to conduct training with village chiefs in developing the island-wide wetlands review and management plan for the territory. (Also see below)

e) Unexpected Results: Despite lack of §309 funding, ASCMP has continued the wetlands project with 306 and EPA funds. §309 funding has been requested for FY94. The employment of a village liaison and facilitator has been of critical value in working with the village chiefs and community members in American Samoa's highly traditional village setting.

f) Impediments to Project Success: 1) work load of AG's office impeding adoption of executive order on wetlands; 2) lack of §309 funding after FY92; 3) village attitude toward wetland uses and need for long-term education outreach program ; 4) need for funding for travel to islands and to print plans. The program is awaiting funding to distribute and implement the plans through village participatory management.

g) Is this Project of National/State/Local Importance: Territory-wide and Local

CALIFORNIA

The §309 priority enhancement needs identified by California cover six issues:

- Wetlands
- Cumulative and Secondary Impacts
- Hazards
- Public Access (no §309 funds requested)
- Ocean Resources (no §309 funds requested)
- Marine Debris (no §309 funds requested)

The problems identified in the §309 priority enhancement areas are summarized as follows:

Wetlands

Over 75 percent of California's historic coastal wetlands have been lost due to agricultural and urban development. California's wetlands program has slowed the pace of coastal wetland loss, but restoration and enhancement have been impeded by high coastal property prices, unclear state and federal agency mandates and a lack of state and federal agency coordination. State wetland decisions are inconsistent and not always sufficiently supported by scientific expertise. Existing regulatory procedures such as NEPA and CEQA are not being utilized because of inadequate state coastal regulatory procedures and enforceable policies. The state lacks a comprehensive wetlands resource information base. Information gathering and planning activities aimed at addressing cumulative impacts to wetlands are insufficient.

Cumulative and Secondary Impacts

The difficulty of the California coastal program to assess, predict, and avoid negative impacts from the cumulative effects of thousands of single coastal development permits is a major concern. California's coastal program is affected by limited ability to review cumulative impacts in individual project reviews and the cumulative impact of individual coastal act violations. It lacks the comprehensive data base necessary for understanding, tracking, and effectively managing cumulative coastal resource impacts. The statewide oversight of local coastal program (LCP) implementation is not functioning as originally envisioned by the Coastal Act. The program's ability to conduct long-range planning, and thus more effectively manage the cumulative impacts of growth, has been undermined by the lack of funding.

Hazards

Risks from coastal hazards in California include erosion and bluff retreat, landslides, coastal storms and flooding, sea level rise, earthquakes and seismic disturbances, and wildfires. California's policies and data concerning hazard avoidance are not as comprehensive as they should be. Policies concerning shoreline protective devices and setback requirements are too general and inconsistent among LCP jurisdictions, leading to significant alteration of the natural protective functions of the shoreline. Current implementation of the coastal program hazards policies fail to discourage excessive grading and neglect other significant coastal hazards, such as wildfires.

List of California §309 Projects for FY92 and FY93

Cumulative and Secondary Impacts

CA(1) Regional Cumulative Impacts Assessment (ReCAP), WF, FY92--\$273,600, FY93--\$273,600

CA(2) Interim Coastal Nonpoint Pollution Control Program Procedural Guidance Document, PSM, FY93--\$114,000

Hazards

CA(3) Coastal Hazards Landform Alteration Policy Guidance, PSM, FY92--\$62,000

Wetlands

CA(4) Wetlands Procedural Guidance Document, PSM, FY92--\$77,000

CA(5) Wetlands Performance Guidelines, PMS, FY93--\$87,000

CA(6) Port Mitigation Study , PSM, FY92--\$50,000

A summary evaluation of each §309 project is attached.

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415-904-5400 (Fax)
Gabriela Goldfarb 415-904-5285

**Title: CA(1) Regional Cumulative Impacts Assessment (ReCAP), WF,
FY92--\$273,600, FY93--\$273,600**

Project Description: The purpose of this project is to address weaknesses in the California Coastal Management Program (CCMP) related to management of cumulative impacts, wetlands, and coastal hazards through development of a new regional impact review process for the California coastal zone. The regional review process will allow the California Coastal Commission, with the participation of local governments, to identify, evaluate and address cumulative impacts on a regional basis. It is anticipated that the regional reviews will lead to regulatory, policy and procedural changes at both the state and local levels. This project involves (1) a demonstration cumulative impact review of key coastal resources for a selected region from which will follow specific program changes to implement the results of the CI review; and (2) development of a new regional periodic review process which will become part of the CCMP and improve upon the current single-LCP periodic review process through new legislation, regulations, procedural guidance documents, and/or memoranda of agreement. As a by-product, regional and resource-specific policies and programs will be implemented through the new legislation, LCP amendments, procedures and/or MOA.

Length of Project: 4 Years (October 1, 1992 - September 30, 1996)

Project Benchmarks

FY92

- research, evaluation and training related to regional review process and summary report
- develop data base program design, refine regional methodology, select region for demonstration cumulative impact review and summary reports
- process of issue scoping, data refinement, definition for regional demonstration review, issue papers, data base design, draft work plan, and process reports

FY93 (as revised 6/94)

- completion of data collection and preliminary data
- summary report on current status of priority resources and documented changes over time
- final draft report detailing factors contributing to cumulative impacts, conflicts in Coastal Act and LCP policies in managing cumulative impacts, projection of trends and possible alternative scenarios, and recommended changes to programs, policies or procedures to address regional cumulative impact management.
- draft recommendations of pilot regional review

FY94/95

- develop and implementation of program changes including modification to specific LCP policies and procedures in the pilot region, legislative changes to the Coastal Act or specific changes to Coastal Commission policies or procedures, and statewide guidance document for implementation of regional cumulative reviews and expansion of regional database to other districts

Project Completion Status

FY92 Work - Completed

FY 93 Work - On Track

Project Results

- a) *Proposed Program Change*: Not accomplished— project not scheduled for completion until 1996.
- 1) Modification to specific LCP policies/procedures (PG)
 - 2) Legislation (L)
 - 3) Statewide guidance (PG)
- b) *Summary of Results/Enhancement*: Project is not completed yet.
- c) *Project Products*:
- FY92
- 1) Four Working Papers:
 - Working Paper No. 1: Developing a Regional Cumulative Assessment Process for the California Coastal Zone: Issues and Concerns Feb. 1, 1993.
 - Working Paper No.2: Regional Designation and Preliminary Data Base Design April 28, 1993.
 - Working Paper No. 3: Regional Issue Scoping: Cumulative Impact Analysis and Program Evaluation in the Monterey Bay Region July 2, 1993
 - Working Paper No. 4: Cumulative Impacts Assessment Conceptual Framework and Analysis Matrix Sept. 1993.
 - 2) Data Base Design and Program
 - 3) Final Work Plan for Pilot Project FY93
- FY93
- 1) Work Plan Revised June, 1994
 - 2) Preliminary Report on Resource Status and Change March 31, 1994
 - 3) Other benchmarks to be completed as part of the Final Draft Report projected for completion December, 1994.
- d) *Other Benefits*: Development of a model for a regional data base to facilitate more effective consideration of cumulative actions as part of ongoing Commission permit reviews; enhanced intergovernmental coordination, especially regarding exchange of information; and potential for increasing Commission assistance to local governments and the public through easier access to information sharing.
- e) *Unexpected Results*: Until we complete the project, this is difficult to assess.
- f) *Impediments to Project Success*: The project is proceeding as intended but full conclusions in some issue areas may be affected by data gaps. In addition, staff is hampered by a lack of technical support for computer hardware and software management.
- g) *Is Project of National/State/Local Importance*: Yes, all three. This is developing and testing a different model for doing policy and program evaluation based on a regional resource framework rather than a single jurisdictional framework. It also may be helpful to further integrate the state and local partnership in new areas of electronic information sharing.

**Title: CA(2) Interim Coastal Nonpoint Pollution Control Program
Procedural Guidance Document, PSM, FY93--\$114,000**

Project Description: The purpose of this project is to analyze the cumulative impacts from nonpoint source pollution (NPS) in the Elkhorn Slough watershed, and develop an Interim Coastal Nonpoint Pollution Control Program (Section 6217) Procedural Guidance Document. This project includes technical and public policy evaluations of NPS in the Elkhorn Slough watershed study area, evaluation of CCMP implementation processes relative to NPS pollution and recommended programmatic changes, and GIS database on land use and water quality causal relationships. An Interim Coastal NPS Control Program Procedural Guidance Document will be developed and include specific interpretations of enforceable CCMP policies that address NPS pollution. Potential use of periodic regional review framework(under CA(1)ReCAP effort) will be explored to implement new 6217 CNPC program. This project will also facilitate the California Coastal Commission's participation in "Coastal Aquatic and Marine Projects Information Transfer System" (CAMPITS) water quality database.

Length of Project: 1 Year (October 1, 1993- December 31, 1994)

Project Benchmarks

FY93

Component One

- 1) Preliminary Research, Scoping, Program Coordination
 - data and literature review on land use, nps pollution, and cumulative impacts
 - project scope and coordination with ReCAP staff to define project goals, approach, products
 - existing data review on land use, population, water quality, and other related data
 - identify method to geocode permit and related data
 - select CCMP permit sample for regional review for cumulative impact assessment.
- 2) Continued Database and Information System Design and Development
 - database module design and data collection protocols for assessment of nsp-related projects and variables and coding variables
 - identification of relevant geographical permit information from CCMP-approved permits
- 3) Data and Policy Evaluation
 - data base development by continued coding of variables for cumulative impacts analysis
 - initiate programmatic review of coastal program by selecting land use types, related projects, and matrix comparison with agency policies, programs, and applications.
 - field check and continued policy implementation analysis using field visits to sample land use sites and compare with agency permits, conditions, monitoring.
- 4) Continued Data and Policy Evaluation
 - complete coding geographical location of permit samples
 - test and evaluate ReCAP regional methodology
- 5) Refine Methodologies, Complete Evaluations, and Prepare Initial Recommendations
 - reapply refined methodology to historical data
 - consider application of refined methodology to future scenarios
 - prepare final report on preliminary recommendations for program change relative to the content of the Coastal Act or LCP policies or their procedural implementation, or both regarding nps impact management.

Component Two

- 6) Preliminary Research of Relevant NPS Policies and CNPS Program Requirements
 - review Coastal Act and LCP policies

- explain new CNPC program requirements
- 7) **Provide Technical and Procedural Operations for Improving BPS Related Reviews**
 - review past actions as samples to include as models w/in guidance document
 - search for additional; illustrative examples from other agencies/states
 - examine initial ReCAP efforts for identifying potential improvements in reviewing NPS projects
- 8) **Draft Guidance Document and Supplemental Information Preparation**
 - prepare and review draft document
 - research and draft CNPS and NPDES issue paper
- 9) **Final Guidance Document**
 - prepare and review final document
 - orientation workshop and distribution

Project Completion Status

FY93 Work - On Track

Project Results

- a) *Proposed Program Change: Not Accomplished:* Project not scheduled for completion until December 1994.
Guidance Document (PG)
- b) *Summary of Results/Enhancement:* Project is not completed yet.
- c) *Project Products:* None yet.
- d) *Other Benefits:* None yet.
- e) *Unexpected Results:* None yet.
- f) *Impediments to Project Success:* None yet.
- g) *Is Project of National/State/Local Importance:* National, State and Local.

**Title: CA(3) Coastal Hazards Landform Alteration Policy Guidance, PSM,
FY92--\$62,000**

Project Description: The purpose of this project is to develop and adopt a Landform Alteration Policy Guidance Document which will provide interpretations of the California Coastal Commission's enforceable coastal hazards policies to Commission staff, applicants, local governments, and other coastal hazard management authorities, to address the problems of excessive grading. Excessive grading results in negative impacts such as instability, erosion and bluff retreat. This project involves four components: (1) review and evaluation of existing scientific and technical information related to landform alterations; (2) review and evaluation of Commission's land alteration policies and programs; (3) development of draft landform alteration policy guidance document, workshops and recommended program changes; and (4) preparation of final policy guidance document, public hearings and Commission adoption.

Length of Project: 1 Year (October 1, 1992 - March 30, 1993)

Project Benchmarks

FY92

- Summary Report on Priority Land Form Alteration Policy Concerns
- Summary Report on CCMP Coastal Hazards Regulatory Process
- Draft Landform Alteration Policy Guidance Document
- Final Landform Alteration Policy Guidance Document

Project Completion Status

FY92 Work - Completed

Project Results

- a) *Proposed Program Change: Accomplished:* Commission adopted Landform Alteration Policy Guidance Document (PG)
- b) *Summary of Results/Enhancement:* Completion of report (Landform Alteration Policy Guidance Document) and workshops for planning staff on how to deal with grading effects from subdivision decisions to lot layout and building design. Report attachments provided details on the possible impacts from grading, a review of policy and regulatory approaches to minimize land form alteration and some technical options available as alternatives to conventional site grading.
- c) *Project Products:* Reports listed in "Project Benchmarks" above, Staff Workshops and Public Hearing on Project.
- d) *Other Benefits:* Enhanced relations with other state agencies involved with landform alteration.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* None
- g) *Is Project of National/State/Local Importance:* Yes

**Title: CA(4) Wetlands Procedural Guidance Document, PSM, FY92--
\$77,000**

Project Description: The purpose of this project is to develop and adopt a Wetlands Procedural Guidance Document which will provide interpretations of the California Coastal Commission's enforceable wetlands policies and associated procedures for the Commission staff, applicants, local governments and other wetlands management authorities. This project involves 5 tasks: (1) review of scientific and technical information concerning wetlands management and resource concerns; (2) review of Commission wetlands regulatory programs and other regulatory programs and processes; (3) development of draft procedural guidance document; (4) public hearings and preparation of final procedural guidance document; and (5) development of interagency network to facilitate regional wetlands regulatory procedures.

Length of Project: 1 Years (February 15, 1993 - February 14, 1994)

Project Benchmarks

FY92

- Summary of Priority Wetland Concerns
- Summary of Wetland Regulatory Process
- Draft Procedural Guidance Document
- Final Procedural Guidance Document

Project Completion Status

FY92 Work - Completed

Project Results

a) *Proposed Program Change: Accomplished:* Wetlands Procedural Guidance (report entitled Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone) was adopted by Executive Director of California Coastal Commission as procedural guidance. (PG)

b) *Summary of Results/Enhancement:*

Result: The new procedural guidance document significantly improves the quality and comprehensiveness of the California Coastal Commission staff's analysis and of the recommendations upon which the Commission bases its decisions on wetlands development projects. The procedural document provides staff with relevant background information and an analytic framework for drafting proposed findings and recommendations.

Result: Compilation of technical, procedural and agency information relating to the regulation of California's coastal wetlands. Development of an interagency network dealing with wetlands regulation.

Enhancement: Project products provide a comprehensive information base that can be used in the preparation and review of coastal development permit applications proposing wetland development projects. This information base provides a consistent framework for the regulation of development in coastal wetlands. Additionally, the review approach takes more advantage of the CEQA process and fosters early proactive involvement of regulatory agencies.

c) *Project Products*

Interim Work Products

- 1) Wetland Resource Concerns for California: A Review of Relevant Technical Information;
- 2) Protection and Management of Wetlands in the California Coastal Zone: A Review of Relevant Agencies, Policies, and Processes;
- 3) Wetlands Resource Directory;
- 4) Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone (final draft)

Final Work Products

- 1) Procedural Memo #26: Procedural Guidance for the Review of Wetland Development Projects in California's Coastal Zone;
- 2) Wetlands Resource and Regulatory Agency Contact List.

- d) *Other Benefits:* The Coastal Commission hired a biologist to complete and to work as part of the Commission's team completing the Regional Cumulative Assessment project. This project allowed the biologist to receive extensive on-the-job training relating to the management and regulation of coastal wetlands. The biologist is now able to serve as a point of contact regarding wetland issues in the coastal zone, and provide technical assistance to other Commission staff and other governmental agencies.
- e) *Unexpected Results:* This project received considerable attention during the public review process. The Commission received 200 requests for copies of the draft procedural memo. Numerous written and verbal comments on the draft were received, most of which were supportive of the document and the Commission's wetlands policies. The relatively high degree of support was somewhat unexpected, given the contentious nature of wetland issues in California.
- f) *Impediments to Project Success:* OCRM has stipulated strict guidelines for what constitutes "success" (i.e., a program change.) Most of the options available for achieving success (e.g., change the Coastal Act through new legislation, develop new guidelines for Commission adoption, etc.) could not be achieved within the time frame, funding level and scope of this project. Additionally, the highly contentious nature of this project increased the level of scrutiny and necessary response time during all stages of the project. Therefore, California developed and implemented a project which would meet OCRM's criteria, project duration constraints, and California law requirements. These factors together restrict the types of projects California, or for that matter any coastal state, can undertake with §309 funds.

Much more time and funds would have been necessary for California to adopt the "wetlands procedural guidance" as formal Commission rule amendments. So, instead, the guidance was adopted by the Executive Director as staff guidance. Although the sources of information (e.g., scientific research results or precedential Commission actions) contained in this document can and will be referenced when developing a staff report, this procedural guidance document itself cannot be cited, quoted or relied upon as the basis for recommendations or findings contained in any staff report.

- g) *Is Project of National/State/Local Importance:* Yes, all three. Wetland issues are receiving much attention at the national, state and local levels.

Title: CA(5) Wetlands Performance Guidelines, PMS, FY93--\$87,000

Project Description: The purpose of this project is to develop wetland "performance guidelines" which can be tailored to characteristics of specific regions for use in evaluating the effectiveness of wetland restoration plans and projects, managing existing wetlands, and eventually linking land use decisions to water quality and biological impacts in wetlands (i.e., cumulative impacts of non-point source pollution). The objective of this project is to develop scientifically-based wetlands performance guidelines that can be used to improve the predictability, consistency, and accountability of the CCMP wetlands regulatory policies. This approach will provide a process for evaluating the critical functions and attributes of a natural wetland, and measuring the ability of the restored area to perform those functions. Based on the results, remedial measures can be crafted to improve restored wetland's functions. This project has three components: (1) identification of critical wetlands processes and evaluation of approaches for setting performance standards; (2) development of guidelines for setting wetlands performance standards; and (3) completion and adoption of wetlands performance guidance document.

Length of Project: 1 Year (February 15, 1994 - February 14, 1995)

Project Benchmarks

FY93

- Draft wetlands performance guidelines
- Final wetlands performance guidelines

Project Completion Status

FY93 Work - On Schedule

Project Results

- a) *Proposed Program Change: Not Accomplished:* Project on schedule and adoption of Final Wetlands Performance Guidelines expected to be completed February 1995. (PG)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products:* Wetlands Performance Guidelines: Procedures for Evaluating the Effectiveness of wetland Mitigation.
- d) *Other Benefits:* The development of wetland performance guidelines is receiving a lot of attention. The literature base is quite extensive. In addition, a number of state and federal agencies have developed or are developing wetland monitoring guidelines. These guidelines include elements for evaluating the performance of wetland mitigation projects. Funding for this project has allowed the Commission to allocate staff time for a detailed review of the available literature. In addition, Commission staff have been able to work with other state agencies in the process of developing monitoring guidelines, resulting in increased coordination and compatibility.
- e) *Unexpected Results:* None identified at this time.
- f) *Impediments to Project Success:* Although California will utilize the "wetlands performance guidelines," the project does not provide for California Coastal Commission adoption of guidance as a rule amendment. This would be a much more

costly and time consuming activity than is provided for with the §309 funds and time restraints.

- g) *Is Project of National/State/Local Importance:* Yes. As mentioned above, a number of state and federal agencies are developing guidelines related to the topic of this project. Although it appears the Commission is on the leading edge with respect to the development and use of wetland performance guidelines, it is expected that other agencies will develop similar guidelines in the near future.

Title: CA(6) Port Mitigation Study , PSM, FY92--\$50,000

Project Description: The purpose of this project is to recommend measures for facilitating the planned expansion and development projects of several of California's major ports while providing appropriate mitigation.. This project involves: (1) the identification of fish and wildlife mitigation needs and potential mitigation sites; (2) an analysis of existing regulatory mechanisms and (3) recommendations, including legislative changes where necessary, on improving the current fish and wildlife mitigation process for California ports.

Length of Project: 1 Year (July 1, 1992 - September 30, 1993)

Project Benchmarks

FY92

- Assessment of port mitigation needs
- Identification of possible port mitigation sites for Ports of San Diego, Long Beach, and Los Angeles
- Review of regulatory process governing the port mitigation process w/special attention to how agencies evaluate the need for landfill expansion, define how impacts/mitigation credits assigned, success of process, and review experience of other states
- Formulate recommendations, as mandated by AB2356, for facilitating the completion of allowable port development projects and for improving existing system for assigning port mitigation credits.

Project Completion Status

FY92 Work - Completed

Project Results

a) **Proposed Program Change:** Not Accomplished--- study resulted in recommendations only.

The study recommendations propose a variety of actions to be undertaken by the ports, the resource and regulatory agencies and the Legislature. No change in state or federal environmental policies or regulations are recommended. (NPC)

b) **Summary of Results/Enhancement:** This project has addressed the chronic problems of uncertainty (regarding port landfill expansion and habitat valuation methodologies), political pressure, and legal issues that the ports face in attempting to develop suitable mitigation projects. It will be at least a couple of years before the results are clear. New port projects are only now being proposed. Key legislators are considering introducing bills based upon the study.

c) **Project Products:** Port Mitigation Study

d) **Other Benefits:** None

e) **Unexpected Results:** None

f) **Impediments to Project Success:** Misunderstanding about some of the recommendations; difficulty focusing attention of all key parties on recommended actions.

g) **Is Project of National/State/Local Importance:** National, State. Since most of the fish and wildlife mitigation problems faced by the California ports are shared by ports in other states, the study may have nationwide importance.

CONNECTICUT

The §309 priority enhancement needs identified by Connecticut cover five issues:

- Wetlands
- Public Access
- Cumulative and Secondary Impacts
- Special Area Management Planning
- Coastal Hazards

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Wetlands

Connecticut's core tidal wetlands regulatory and planning programs are in place and functioning effectively. However, existing programs should be enhanced to improve their overall effectiveness in several key areas. The state has a high degree of pre-regulation wetland loss and degradation, as well as an unusually high potential for restoration of degraded tidal wetlands where tidal flushing has been impacted by man-made, pre-regulation constrictions.

Public Access

In Connecticut, coastal public access is a high priority for improvements because of the highly developed nature of the state's shoreline, a relatively dense coastal and statewide population, and a paucity of available lands capable of supporting the most sought after recreational uses including beaches, boat launches, and fishing access.

Cumulative and Secondary Impacts

Connecticut's coastal management program and coastal permit programs function in a well-coordinated fashion and effectively protect coastal resources. However, some decisions which ultimately affect Long Island Sound are made on a case-by-case basis without a formal cumulative impact assessment process. Due to Long Island Sound's vast watershed area, Connecticut's relatively dense population, existing industrial base, and the number of known and suspected water quality problems associated with highly developed coastal states, enhanced cumulative and secondary impact planning to achieve water quality improvements is warranted.

Special Area Management Planning

Connecticut has ongoing special area management efforts within the broad context of specific resources (such as wetlands), specific resource areas (such as the lower Connecticut River wetlands) and "generic" special areas (such as harbors, coves, and embayments). Geographical Areas of Particular Concern (APC's) identified in Connecticut's federally approved coastal management program (P II-249) include both specific resources - tidal wetlands and shellfish concentration areas - and generic geographical areas - federal navigation channels and dredged materials disposal sites. Enhancements which are both area-specific and which will allow the state to more effectively manage Connecticut's complex harbors as special areas are needed.

Coastal Hazards

Connecticut's shoreline and Long Island Sound are somewhat better protected than other direct ocean-fronting coastal states. Nonetheless, historic, pre-coastal management and

pre-federal flood insurance era development of the coastline has served to heavily populate the coastline and is therefore a serious concern. Also, current federal flood insurance requirements may, in some cases, serve to encourage development in unsuitable areas, particularly high velocity wave or "V" zones.

List of Connecticut §309 Projects for FY92 and FY 93

Wetlands

- CT (1) Comprehensive Tidal Wetlands Restoration and Compensation Program, WF, FY 92--\$25,000, FY 93--\$25,000
- CT (2) General Permit for Minor Non-Impacting Tidal Wetlands Activities, WF, FY 92--\$25,000, FY 93--\$15,000
- CT (3) Long Island Sound License Plate Revenue Program, WF, FY 92--\$17,000, FY 93--\$10,000

Public Access:

No Public Access Projects were funded for FY 92 or 93.

Cumulative and Secondary Impacts:

- CT (4) Develop New Regulations to Implement the Structures, Dredging and Fill Program, WF, FY92--\$13,000, FY93--\$31,000
- CT (5) Evaluate the Adequacy of Connecticut's Coastal Boundary for the Management of Uses Subject to the Coastal Management Program for Section 6217 Coastal Nonpoint Control Purposes, PSM, FY92--\$150,000, FY93--\$140,000, continues in FY94
- CT (6) Municipal Implementation Guidance for Coastal Nonpoint Pollution, WF, FY93--\$15,000, continues in FY94

Special Area Management Planning:

No SAMP Projects were funded for FY92 or 93.

Coastal Hazards

All Coastal Hazards projects are for FY94 and 95

A summary evaluation of each §309 project follows.

State Contact: Department of Environmental Protection, Office of Long Island Sound Program

**Contacts: Charles Evans, Director
Office of Long Island Sound Programs
Department of Protection
79 Elm Street
Hartford, CT 06106-5127
203-566-7404 (Phone)
203-566-5488 (Fax)**

Title: CT (1) Comprehensive Tidal Wetlands Restoration and Compensation Program, WF, FY 92--\$25,000, FY 93--\$25,000

Project Description: The Office of Long Island Sound Programs (OLISP) will develop a comprehensive wetland restoration program including: a mechanism to allow for compensation for unavoidable losses associated with public projects such as Department of Transportation road and bridge maintenance and construction; an inventory of degraded wetlands with a general characterization and prioritization; identification of funding sources; identification of restoration techniques; and development of procedures for long-term monitoring.

Length of Project: 2 years (July 1992 - June 1994)

Project Benchmarks

FY92

- criteria re compensation developed/published
- formal agreement with DOT finalized
- initial degraded wetland lists reviewed

FY93

- restoration techniques identified
- funding sources identified
- final report

Project Completion Status

FY92 Work - Completed

FY93 Work - Not on schedule but still likely to be completed

Project Results

a) *Proposed Program Change:* Not on track but expected to be accomplished—The Department of Environmental Protection (DEP) has put into place a comprehensive wetlands restoration and compensation strategy and has a formal restoration/compensation program. "Formal" agreement with DOT will be forthcoming once technical issues re: wetlands banking have fully evolved and been resolved. (P)

b) *Summary of Results/Enhancement*

- Comprehensive tidal wetland restoration program in place and being implemented; DEP/DOT agreement in practice with regard to individual compensation projects for unavoidable losses associated with permitted activities. Agreement to articulate principles re: wetlands banking - "formal" agreement likely in future.
- Annual acreage restored exceeds permitted losses!
- Unexpected establishment of Wetlands Restoration Unit within department has allowed for significant progress in restoring wetlands.
- See "Restoration of Degraded Tidal Wetlands," July 1994, submitted with July '94 Performance Report.

c) *Project Products to Date*

- 1) Reports submitted to OCRM
- 2) Inventory
- 3) DEP Compensation Policy and Practice Document

d) *Other Benefits:* Creation of a Wetlands Protection Unit in the DEP which was not predicted when the project started out. When the project started out there was a

mosquito control unit in the Department of Health Service. That unit's funding was discontinued but a spin-off/unexpected result of the §309 project was that because of the project they were able to write a proposal to fund the transfer of the mosquito control unit staff to the DEP to form a Wetlands Restoration Unit. The mosquito control people have expertise in wetland restoration because mosquitoes can be controlled by restoring wetlands. This creation of the new unit was a direct result of the §309 project.

- e) *Unexpected Results:* See above.
- f) *Impediments to Project Success:* Getting that last 5 percent finished. Getting everyone involved comfortable with the MOU. Getting through the final political stage.
- g) *Was the project national/state/local in importance?* Somewhat national. The results of this could be transferable elsewhere. It is not unique to Connecticut.

Title: CT (2) General Permit for Minor Non-Impacting Tidal Wetlands Activities, WF, FY 92--\$25,000, FY 93-\$15,000

Project Description: Multi-pronged effort that will ultimately provide both for several general permits for minor activities that either pose no environmental risk to the wetland or are clearly beneficial and the updating of the existing tidal wetlands regulations to reflect this change as well as other recent amendments to the Tidal Wetlands Act (TWA).

Length of Project: 2 years (July 1992 - June 1994)

*No-cost extension January 1995

Project Benchmarks

FY92

- legislative authority for general permit
- list of appropriate activities for general permit
- draft tidal wetlands regulations

FY93

- draft tidal wetlands regulation amendments
- develop general permit and initiate adoption
- tidal wetland regulation amendments adopted
- general permit adopted, instructions, etc. developed

FY94

- hope that regulations and permits will be adopted by January 1995, although new administration and general assembly will impact priorities and final adoption.

Project Completion Status

FY92 Work - Completed

FY93 Work - Not on Schedule but Still Likely to be Completed by January 1995.

Project Results

a) *Proposed Program Change:* On track and expected to be accomplished by January 1995. Once regulations and permits are adopted OLISP will have incorporated new legal authorities into Connecticut's coastal management program. (L, RR)

b) *Summary of Results/Enhancement*

- New legal authority to adopt general permits in place.
- General permits drafted and in varying stages of adoption process.
- Tidal wetland regulation amendment drafted and in review process.

c) *Project Products to Date*

- 1) Draft general permits
- 2) Draft regulations

d) *Other Benefits:* None.

e) *Unexpected Results:* Originally intended to have just one general permit to cover several subject areas, but ended up with six to address specific areas; others possible.

f) *Impediments to Project Success:* Ever present "impediment" or unknown of public and political response to new regulations or modifications to regulatory programs.

- With specific regard to regulations, in Connecticut the Legislature must approve regulations and changes thereto.

g) *Was the project national/state/local in importance? State/local.*

**Title: CT (3) Long Island Sound License Plate Revenue Program, WF, FY 92--
\$17,000, FY 93--\$10,000**

Project Description: Development of a program leading to the issuance of special Long Island Sound commemorative license plates. Proceeds from the sale of the plates (estimated to be \$5-\$10 million within first few years) would be placed in a special fund dedicated to several coastal management functions with direct benefit to Long Island Sound (e.g. restoration, public access, public education).

Length of Project: 2 years (July 1992 - June 1994)

Project Benchmarks

FY92

- legislation authorizing issuance of plate submitted to legislature

FY93

- establish criteria for activities eligible for funding

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

Project Results

a) Proposed Program Change: Accomplished--Institution of new Long Island Sound License Plate Revenue Program. (L, PG)

b) Summary of Results/Enhancement

- more than 40,000 plates sold
- \$2.1 million in sales
- \$780,000 allocated for 54 projects

c) Project Products to Date

- 1) License plates are being sold.
- 2) Revenue is coming in and being put into Long Island Sound Fund
- 3) Fund is being used for grants for a number of projects (examples: public access, public education)

d) Other Benefits: Public awareness of Long Island Sound heightened.

e) Unexpected Results: Sale expanded to commercial plates and trailers.

f) Impediments to Project Success: None.

g) Was the project national/state/local in importance? A number of states had similar programs before Connecticut, and since Connecticut's program started several other states have instituted programs. Connecticut was not the pioneer--the state took the idea from the other states--but Connecticut's program is applicable to other states.

Title: CT (4) Develop New Regulations to Implement the Structures, Dredging and Fill Program, WF, FY92--\$13,000, FY93--\$31,000

Project Description: The development of comprehensive regulations which establish the criteria upon which coastal permit applications are evaluated. The Office of Long Island Sound Programs (OLISP) will draft the regulations in consultation with the applicable divisions of DEP and outside advisors, as well as with input from affected user groups such as the state and regional marine trades organizations, environmental groups, the regulated community, and the general public.

Length of Project: 2 years (July 1992 - June 1994)

*No-cost extension

Project Benchmarks

FY92

- preliminary discussions with agencies and organizations complete
- first draft of comprehensive regulations complete

FY93

- formal DEP review
- informal review by interest groups
- public hearing
- all necessary approvals obtained
- regulations incorporated into program

FY94

- hope to have regulations adopted by July 1995.

Project Completion Status

FY92 Work - Completed

FY93 Work - Not on Schedule but Still Likely to be Completed

Project Results

- Proposed Program Change:* Off track but still expected to be accomplished—
Develop new regulations to implement the structures, dredging and fill program. Regulations have been developed but OLISP is bogged down in the implementation process. They are facing opposition from the regulated community. If OLISP is not successful in getting the regulations adopted, they may fall back to modifying the drafts for use as guidelines. They are rethinking their strategy but intend to try to continue and have the drafted regulations adopted. They have not given up on getting the regulations adopted. (RR)
- Summary of Results/Enhancement*
 - Draft regulations have been useful in revamping coastal permit applications and instructions for department's permit "re-engineering" process.
- Project Products to Date*
 - 1) Draft Regulations
- Other Benefits:* See summary of results.
- Unexpected Results:* None.

- f) *Impediments to Project Success:* 1) Political considerations--the regulated community is concerned about the regulations as they stand. The regulated community would like changes in the drafted regulations and would like to see things done differently. 2) Given the extensive nature of the regulations--how sweeping and comprehensive they are--OLISP was over ambitious to think that two years would be enough for this project.
- g) *Was the project national/state/local in importance?* State/local.

Title: CT (5) Evaluate the Adequacy of Connecticut's Coastal Boundary for the Management of Uses Subject to the Coastal Management Program for Section 6217 Coastal Nonpoint Control Purposes, PSM, FY92--\$150,000, FY93--\$140,000, continues in FY94

Project Description: The OLISP proposes to utilize information relative to land use, growth and development patterns in the Long Island Sound watershed, and nonpoint source contributions in order to determine whether coastal boundary changes are, in fact, warranted to expand management to a watershed-type basis.

Length of Project: 3 years (July 1992 - June 1995)

Project Benchmarks

FY92

- identification of sub-watershed basins
- prioritization of sub-watershed basins based upon land use and proximity to Long Island Sound
- review of existing authorities and controls for non-point source pollution control

FY93

- complete data gathering
- link/coordinate boundary analysis to cumulative and secondary impact analysis
- public comment sought on management area alternatives

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

FY94 Work - On Schedule

Project Results

- a) *Proposed Program Change:* On Track and Expected To Be Accomplished-- Determine whether coastal boundary changes are warranted to expand management to a watershed-type basis in the Long Island Sound watershed.

Benchmarks:

12/94: finalize boundary/management area recommendations

6/95: develop any legislative proposals necessary to implement enforceable authorities and coordinate with affected state agencies; final mapping. (P, L)

- b) *Summary of Results/Enhancement*

Funding has supported a technical analysis of management area designation in context with sophisticated land use and water quality data generated primarily through the Long Island Sound Study.

- c) *Project Products to Date*

- 1) Analysis and information gathering

- d) *Other Benefits:* None yet.

- e) *Unexpected Results:* None yet.

- f) *Impediments to Project Success:* None yet.

- g) *Was the project national/state/local in importance?* State and local. Some of the analysis may be transferable to other states.

Title: CT (6) Municipal Implementation Guidance for Coastal Nonpoint Pollution, WF, FY93--\$15,000, continues in FY94

Project Description: OLISP will develop a technical assistance program which will familiarize professional staff and elected and appointed municipal land use officials with recent statutory amendments that require coastal municipalities to consider the environmental impact on Long Island Sound of any proposal for development, and consider nonpoint source pollution control when adopting new and revised land use regulations.

Length of Project: 2 years (July 1993 - June 1995)

Project Benchmarks

FY93

- research local-based water quality standards and prepare draft criteria, model regulations, etc. for municipal training program
- hold preliminary workshops to solicit public and municipal input on draft criteria

FY94

- draft education and outreach materials, finalize materials, publish and distribute them and develop a concise training program
- hold a series of workshops for coastal municipal officials, regional planners and the public;
- prepare and submit formal water quality criteria for program change review and approval as appropriate

Project Completion Status

FY93 Work - Completed

FY94 Work - On Schedule

Project Results

a) *Proposed Program Change:* On track and expected to be accomplished. (NPC)

b) *Summary of Results/Enhancement*

- research yielded relatively few municipal regulations and standards for water quality protection.
- discussions with local officials indicate a strong need for technical assistance and training on a fairly basic, introductory level.
- local officials want program to be an "add-on" rather than a new mandated program.

c) *Project Products to Date*

1) Background Analysis

d) *Other Benefits:* None yet.

e) *Unexpected Results:* None yet.

f) *Impediments to Project Success:* None yet.

g) *Was the project national/state/local in importance?* All three-- training materials can be used on other states to enhance local land use/water quality protection efforts.

DELAWARE

The §309 priority enhancement needs by Delaware cover three issues:

- Wetlands
- Cumulative and Secondary Impacts
- Coastal Hazards (No funds requested during FY92 and 93)

The problems identified in the Delaware §309 priority enhancement issue areas are summarized as follows:

Wetlands

Threats to Delaware's tidal wetlands are distinctly different in each of the three counties. In Wilmington, wetlands losses resulted from drainage for urbanization dating back to the early Dutch settlers. In Kent County, wetlands were altered for mosquito ditching efforts. During the 1930's over 75 percent of Delaware's tidal wetlands were parallel-grid-ditched for saltmarsh mosquito control resulting in undesirable dewatering of valuable fish and wildlife habitat. In Sussex county, the wetlands are impacted by recent, fast conversion of adjacent upland from forest and farmlands to recreational suburban sprawl, including docks and walkways directly into the wetlands.

Besides deleterious impacts to wetlands attributed to man, natural processes have also degraded Delaware's wetlands. Several hundred acres have been negatively impacted by erosion, accretion and natural deposition processes. The average net loss of palustrine vegetated wetlands per year is at least 1,500 acres.

Delaware passed the Wetlands Protection Act in 1973. This Act implements regulatory control over activities which would potentially degrade tidal wetlands. The current tidal wetlands regulatory program has been very effective in disallowing new major impacts such as filling, however, one major weakness recognized within Delaware's regulatory program is the inability to address cumulative impacts. Other problems relate to the existing accuracy of Delaware's wetlands mapping, unapproved shoreline stabilization projects, and the inappropriate operation of power boats (propeller damage to wetland vegetation). Tidal wetlands violations primarily result from unpermitted filling activities.

Freshwater wetlands were regulated in Delaware through 401 Water Quality Certification and DCMP's Federal Consistency Program there is no separate. Federal jurisdiction regulates the deposition of fill, but not other human activities such as excavation, expanding farming operations, and vegetation removal.

Cumulative and Secondary Impacts

Environmental quality in coastal watershed areas is declining steadily. The problems include: stormwater and agricultural runoff; failing septic systems and loss of habitat to development. The visible signs of growth pressures existing within the watersheds include beach closings, declining fish populations and loss of wetlands. The cumulative effect has been that the decline in coastal water quality threatens public health, the health and survival of living resources and recreational assets of coastal areas and resources. Growth in the coastal area has resulted in urbanization and tourism. The Inland Bays as well as the Atlantic coast have seen the greatest amount of development, coupled with increasing levels of tourism. Cumulative and secondary impacts are of the greatest concern to smaller coastal communities, which, because of their size, lack sufficient infrastructure to accommodate uncontrolled, unplanned growth pressures.

Specific concerns raised include the present inadequacy of existing sewer systems (if they exist), road infrastructure, and related community facilities.

Moreover, smaller communities lack zoning and subdivision regulations—land use controls critical to addressing some of the concerns raised by cumulative impacts and rapid growth. Unplanned growth sited adjacent to sensitive coastal areas such as spawning and habitat areas, is also a major concern.

In addition to potentially negative impact concerns relating to infrastructure and natural resources, the loss of communities' historical character is also an issue. These smaller unique communities, by virtue of their size, lack the resources and of course infrastructure to accommodate the cumulative impacts associated with Delaware's rapid coastal growth.

List of the Delaware §309 Projects for FY 1992 and FY 1993:

Wetlands

DE (1) "Christina/Delaware Rivers Urban Wetland Corridor Rehabilitation" WF, FY92 - \$64,000

Cumulative and Secondary Impacts

DE (2) "A Watershed Protection Strategy for the Dover/Silver Lake/St. Jones" PSM, FY92 - \$200,000, FY93 - \$109,000

A summary evaluation of each §309 project is attached.

State Contact: Sara Cooksey, Delaware Department of Natural Resources
and Environmental Control
89 Kings Highway
Dover, DE 19903
302-739--3451 (Phone)
302-739-6242 (Fax)

Title: DE (1) Christina/Delaware Rivers Urban Wetland Corridor Rehabilitation, WF, FY92 -- \$64,000.

Project Description: Wetland rehabilitation of wetlands focusing on the highly degraded urban wetland corridor in New Castle County. A regional wetland management approach addressing the rehabilitation needs of various wetland sites will be utilized. Rehabilitation will be carried out by a multi-agency team on a site-by-site, acre-by-acre basis to proactively address wetland degradation problems.

The project will provide a mechanism for substantial ecosystem recovery in the state's northern tidal marshes. The project will also provide a coastal management strategy for regional improvements in the qualitative value of wetlands. The new approach will complement the existing tidal wetlands regulatory program by providing an independent mechanism for pro-active wetland rehabilitation.

Length of Project: 2 years (October 1, 1992 to September 30, 1994)

*No-cost extension for 1 year

Project Benchmarks

FY92 Draft management plan for five wetlands

FY93 Begin implementation

Project Completion Status:

Not on schedule, still likely to be completed.

Project Results:

- a) *Program Changes:* (1) Establishment of resource management agreements (some mandatory) among various governments and landowners; (2) Development of a wetlands rehabilitation policy based on federal consistency review; and (3) Provision to DNREC of a systematic process to rehabilitate wetlands.
- b) *Summary of Results/Enhancement:* Management Plan for 5 wetlands finished, some implementation begun
- c) *Project Products to Date:* Tax Ditch Referendum Passed
- d) *Other Benefits:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success (if any):* Difficult building consensus between landowners and government.
- g) *Was the project national or state/local in importance?* State and Regional

Title: DE (2) "Watershed Protection Strategy for the Dover/Silverlake/St. Jones Watershed, PSM, FY92 -- \$109,356, FY93 -- \$200,000

Project Description: The DCMP will develop a Storm Water Management Model (SWMM), specifically, a predictive computer model which will evaluate different land-use scenarios and stormwater management practices and predict their effect on water quality. The model will be adaptable to other coastal watersheds in Delaware. Using the computer model, the DCMP will develop a Watershed Protection Strategy for the restoration of degraded areas, such as wetlands through improvements to stormwater management practices.

A comprehensive sediment and stormwater watershed management plan and regulations will be developed. The project will also result in the creation of a stormwater utility and levy stormwater utility fees on property owners for stormwater-related activities such as pond retention basins to the creation of artificial wetlands. The project will also establish new operating agreements between land use regulatory authorities.

Length of Project: 3 years (October 1, 1992 to September 30, 1995)

*Request for 1 year

Project Benchmarks

FY92

- Regulatory changes for watershed

FY93

- SWMM model running
- Development of draft watershed plan

Project Completion Status:

Not on schedule, but still likely to be completed.

Project Results

(a) Program Changes

- 1) Amendments to Section 9 of the Sediment and Stormwater Regulations to include the Dover/Silver Lake/St. Jones watershed as a designated watershed, thereby making it subject to additional sediment and stormwater regulations.
- 2) Establishment of a "stormwater utility" empowered to levy fees on property owners for stormwater management activities.
- 3) New operating agreements among the various jurisdictions with land use regularity authority in the watershed.

b) Summary of Results/Enhancement: None

c) Project Products: Watershed plan with funding source for improvements

d) Other Benefits: Worked out the "kinks" in doing watershed plans

e) Unexpected Results: Slow process

f) Impediments to Project Success: Site specific data

g) Is the project national or state/local in importance? State.

FLORIDA

The §309 priority enhancement needs identified by Florida cover three issues:

- Cumulative and Secondary Impacts
- Hazards
- Public Access

The problems identified in the §309 enhancement issue areas as summarized as follows:

Cumulative and Secondary Impacts

Cumulative impacts of on-site sewage disposal systems is a major problem in Florida. It involves vested rights of private property owners, subdivision regulations, growth management, environmental quality and public health issues. There is a need to develop effective environmental management tools and technical alternatives to septic tanks which will significantly reduce nutrient enrichment of nearshore waters along with surface water and groundwater contamination caused by coastal development that requires dense concentration of on-site sewage disposal systems. At present, current state laws limit the state's ability to restrict use of on-site sewage disposal.

Hazards

Florida's coastline is extremely vulnerable to such natural hazards as hurricanes, storm-induced erosion, long-term erosion, and flooding from tropical storms and severe rainfall events. Population concentrations and development along Florida's coast has created tremendous problems in hazards management. Florida's undeveloped and unbridged coastal islands have seen increased development pressures in recent years.

Public Access

Florida has extensive coastline and sandy beaches are the most popular attraction for outdoor recreation. Florida's coastal areas are also the most popular place to live. Rapid urbanization has limited public access, especially to coastal beaches. Florida's Beach Erosion Control Program under Chapter 161 lacks adequate public access criteria for state-funded restoration projects as a means of ensuring public beach access.

List of Florida §309 Projects for FY92 and FY93:

Cumulative and Secondary Impacts

FL(1) On-Site Sewage Disposal Systems in Subdivisions with Vested Development Rights, WF, FY92--\$134,385, FY93--\$134,385 (FY94 \$134,985 proposed)

Public Access

FL(2) Access as a Condition for State Funding of Beach Restoration Projects, WF, FY92--\$138,615, FY93--\$138,615-CANCELED

(Florida received no funding for PSM in FY92 & FY93)

A summary of each §309 project is attached.

State Contact: Florida Coastal Management Program
Rhyne Building
2740 Centerview Drive
Tallahassee, FL 32399-2100
904-922-5438 (Phone)
904-487-2899 (Fax)

Contacts: Chris McCay (Grants)
Joy Dorst (Public Information)

Title: FL (1) On-Site Sewage Disposal Systems in Subdivisions with Vested Development Rights, WF, FY92--\$134,385, FY93--\$134,385

Project Description: The purpose of this project is to develop effective environmental management tools and technical alternatives to septic tanks which will significantly reduce contamination, particularly nutrient enrichment, of surface water and groundwater resources from dense concentrations of on-site sewage disposal systems within the coastal zone. This project involves three components: (1) Routine Program Implementation Report adding Rule 10D-6 (public health rule) to Florida Coastal Management Program; (2) new Legislation requiring DHRS to address environmental concerns, particularly nutrient contamination of coastal waters; and (3) adoption of amendments to Rule 10D-6 to implement new legislation and treatment techniques for nutrient contamination control.

Length of Project: 3 Years (October 1, 1992- September 30, 1995)

Project Benchmarks

FY92

- MOU between DCA and DHRS to address nutrient enrichment on a joint basis
- Amend FCMP by incorporating section 381.0065 and 381.0066 and Chapter 10D-6, F.A.C. into the program which deals with on-site disposal systems
- establish a technical & citizens advisory committee
- prepare a report for the 1993 Legislative session addressing issues of septic tanks on lots platted before 1972 and exempt from septic tank acre limits
- develop and analyze different land use regulations to address nutrient contamination from septic tanks including minimum lot sizes and shoreline setbacks
- evaluate alternative nutrient-reducing technologies for on-site sewage disposal for coastal areas

FY93

- draft legislation, review draft legislation by citizens advisory committee
- amend draft legislation, prepare economic impact study of proposed legislation
- track and prepare amendments to draft legislation through 1994 Legislative session
- adopt legislation
- prepare draft amendments to rule 10D-6 based on workshops
- develop and test alternative onsite sewage treatment and disposal technologies with potential to reduce nutrient contamination of groundwater/surfacewater resources in the Florida Keys

FY94

- adopt rules amendments incorporating preferred alternative treatment techniques to reduce nutrient contamination.

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

FY94 Work - Expect time delays

Project Results

- a) *Proposed Program Changes: Accomplished*
- 1) Incorporate public health statutes (Sec. 381.0065 & 381.0066) and Chapter 10D-6, F.A.C. rule into FCMP - Accomplished (RR)
 - 2) Amend public health statute to include environmental concerns- Accomplished (a year ahead of schedule) (L)
 - 3) Amend Chapter 10D-6, F.A.C. to incorporate preferred treatment techniques to reduce nutrient contamination- Not Accomplished-- not schedule for completion until June 1995; expect time delays with completion by Dec. 1996. (RR)

- b) *Summary of Results/Enhancement: Two project objective were accomplished and done ahead of the three-year work plan. The public health statute has been added to the FCMP and the statute and accompanying regulations have been amended to reflect environmental concerns.*

Florida will control the widespread and high-density use of on-site sewage disposal systems in subdivisions that have been "vested" under Florida law. The state's expanded regulatory authority over septic systems will now address concerns about the environmental quality of coastal waters and the public health consequences of degraded waters.

Once alternative treatment techniques have been developed and tested (mid 1996), Florida expects to amend Rule 10D-6, FAC to adopt best techniques to reduce nutrient contamination from septic systems. (Dec. 1996)

- c) *Project Products include*
- 1) Report to the Governor and Legislature Concerning On-Site Sewage Disposal System on Lots Platted Prior to 1972.
 - 2) Routine Program Improvement Adding Chapter 381.065-066 and Rule 10D-6 to FCMP.
 - 3) Chapter 381.065-066 Statute Amendments 1993.

- d) *Other Benefits: None*

- e) *Unexpected Results: None*

- f) *Impediments to Project Success: None in FY92. In FY93, contract delays stalled completion of research, development and testing of alternative septic system treatment techniques and therefore has delayed date of adoption of rule amendments to add preferred treatment techniques until 1996.*

- g) *Is Project of National/State/Local Importance: State and Local*

Title: FL (2) Access as a Condition for State Funding of Beach Restoration Projects, WF, FY92--\$138,615, FY93--\$138,615 - CANCELED

Project Description: The purpose of this project is to expand public access opportunities to Florida's sandy beaches through public access requirements for public funded beach restoration projects. This project focuses on efforts to revise the rules for the State Beach Management Program to ensure, as a condition of state funding for beach restoration, the provision of public access sites and adequate parking at specified intervals; and to assist local governments in developing support facilities through modification of the state's coastal construction permitting program. The program changes proposed by this project include: 1) revised state beach management program rules governing public access criteria for beach restoration projects; and 2) modification of the state coastal construction permitting program.

Length of Project: 3 Years (October 1, 1992- September 30, 1995)
FY92 - 6 months No Cost Grant Extension Requested and received
FY93 - project CANCELED, moneys not reprogrammed and to revert to NOAA
FY94 - Canceled

Project Benchmarks

FY92

- public beach access inventory
- beach access adequacy survey and report

FY93

- conduct beach use survey of residents and tourists
- develop a standard beach access signage
- develop guidelines for facility development of beach access sites

FY94

- draft amendments to Rule Chapter 16B-36 and 16B-33
- economic impact assessment of proposed rule amendments, public hearings,
- revise and adopt final rule amendments.

Project Completion Status

FY92 Work - Completed

FY93 Work - Not Completed, Abandoned/Requested Termination/Canceled project

FY94 Work - State plans to seek rule amendments with state funds

Project Results

a) *Proposed Program Change:* Not Accomplished.

- 1) Revised state beach management program rule (RR)
- 2) Modification of state coastal construction permitting program (RR)

b) *Summary of Results/Enhancement:* None

c) *Project Products*

- 1) Inventory of Access Site Locations and Maps for Coastal Counties
- 2) Public Access Adequacy Report

d) *Other Benefits:* None

- e) *Unexpected Results: See Below*
- f) *Impediments to Project Success:* The State's Department of Environmental Protection, Division of Beaches and Shores encountered problems obtaining work products under the tight contractual time constraints. The department, therefore, proposed that the interim products not be pursued further. They still propose to do the original program change requiring the provision of public beach access as a component of beach restoration projects using state funds.
- g) *Is Project of National/State/Local Importance:* State

GUAM

The §309 priority enhancement needs identified by Guam cover three issues:

- Public access
- Wetlands
- Hazards (No §309 funding requested due to limited funding; alternative funding through FEMA)

The problems identified in the §309 priority needs enhancement issue areas are summarized as follows:

Public Access

Guam has legislation and a history of public rights for access to the shoreline, but not clearly defined rights of access to inland sites, important viewplanes, historic sites and other less traditional addressed areas and access for the physically disabled. This shortcoming has become evident with development of large tracts of southern and central island properties. Publicity, public awareness, and organized disabled persons lobby has prompted the need to address shortcomings of the regulatory system and issues surrounding access to inland water sites, historic sites, aesthetic sites, wetland sites, forest sites, etc.

Wetlands

Guam's wetlands are confined almost entirely to the southern half of the island. Historically, there has been significant loss of wetlands in Guam through filling and aquaculture projects. In the late 1970, Guam adopted wetland regulations which achieved some success in protecting wetlands and development pressures were low. Development beginning in the late 1980s in the southern area, coupled with increased wetland violations and the major violation and fine against the U.S. Navy and Air Force, have made their state and developers aware of the need to improve Guam's wetlands regulatory and enforcement program. Guam lacks the ability to assess wetlands' values, track wetland health, or monitor impacts from surrounding activities.

List of Guam §309 Projects for FY92 and FY93

Public Access

GUAM (1) WF, FY92--\$43,200, FY93--\$43,200

Wetlands (Note here only)

GUAM - Analyzing and Prioritizing Guam's Wetlands Acquisition Techniques, WF, FY94--\$43,200. (This project is noted here because it was identified in Guam's §309 Strategy for FY94.)

(Guam did not request any §309 funding for Projects of Special Merit in FY92 and FY93.)

A summary evaluation of Guam's FY92 and FY93 §309 project is attached.

State Contact: Mike Ham
Coastal Program Manager
P.O. Box 2950
Agana, GU 96910

Title: GUAM (1) Improving Nontraditional Access and Access for Disabled

Project Description: The purpose of this project is to improve nontraditional, primarily inland access and access for people with disabilities through increased public awareness and recreational opportunities. The project involves actions to: (1) identify, analyze and recommend improvements to existing and potential nontraditional access sites (such as historic sites, inland sites, viewplanes, natural areas) to increase public access, including access for disabled; and (2) improve such access through plans, executive orders, legislation, rules and regulatory amendments. Program changes expected include new legislation, rule, regulations, or legal mechanisms which comprehensively address public access and access for the physically disabled.

Length of Project: 2 years (October 1, 1992 - September 30, 1994).

Project Benchmarks

FY92

- Identify, map and analyze existing and potential nonshoreline access sites
- Investigate other states access programs
- Conduct public hearings and instigate media coverage
- Develop a comprehensive plan for improving access priority sites

FY93

- MOU between GCMP and DPR
- Draft and final access plans to OCRM
- Draft legislation for management of priority access sites to non-shore resources and access for the physically disabled
- Adoption of legislation/regulatory regime

Project Completion Status

FY92 Work - Completed in FY93

FY93 Work - Completed or On Track - except legislation which is expected to be introduced in fall of 1994

Project Results

a) *Proposed Program Changes:* Not Accomplished—but expect legislation will pass by 1995.

- 1) Legislation (L)
- 2) Regulations (RR)

b) *Summary of Results/Enhancement:* Project not completed yet. The project will result in a Management Plan for five specific sites on Guam to be set aside for conservation and recreation to meet nontraditional access and access for people with disabilities. The plan will include proposed legislation and funding needed to implement the plan including park areas, bathrooms, and on-site personnel to manage the fragile site resources (e.g., prehistoric sites). Passage of legislation will constitute a program change for Guam's coastal program.

c) *Project Products*

- 1) Public Access Management Plan for Guam (Due Sept. 94)

d) *Other Benefits:* Heightened public visibility of public lands issues.

e) *Unexpected Results:* None yet.

f) *Impediments to Project Success*

- 1) OCRM reduced by \$10,000 the funding for this project. Could have produced a better product with additional monies;
- 2) Election year could be an opportunity or impediment to passage of access site legislation;
- 3) Proposed legislation will include funds for implementation which could make passage difficult;
- 4) Poor media attention to CZMP and public lands issues.

g) *Is this Project of Nation/State/Local Importance:* State

HAWAII

The §309 priority enhancement needs identified by Hawaii cover six issues:

- Wetlands - §309 funds requested, covered under hazards
- Hazards
- Public Access
- Cumulative and Secondary Impacts - no §309 funds requested
- Ocean Resources
- Special Area Management Plans (SAMP) - no §309 funds requested

The problems identified in the §309 enhancement issue areas are summarized as follows:

Hazards

Hawaii's coastline is threatened by coastal erosion, tsunamis, hurricanes, sea level rise, flooding, subsidence, earthquakes and lava flows. Almost half of Hawaii's land area is within five miles of the ocean and developed and vulnerable to coastal hazards. Hawaii needs a comprehensive shoreline management plan with widened shoreline setback areas to buffer coastal hazards. The public is unaware of the linkages between natural wave/beach processes, manmade structures and coastal hazards. Information to justify and support program changes is needed.

Public Access

The demand for public access to and along Hawaii's shoreline is greater than the current availability of such accesses. Further, higher densities of uses has led to safety concerns, use conflicts and environmental degradation. High land costs and competing budget needs have stalled recent public land acquisition. New development and changing land ownership patterns are blocking traditional access to beaches/recreation areas across private property. Development of a coastal acquisition program is needed which includes alternative mechanisms for coastal land acquisition.

Ocean Resources

Ocean resources are an integral part of the people's lives and of fundamental economic, social and environmental importance to Hawaii. Fragmentation of planning, management, and regulatory responsibilities among various agencies is a major impediment to effective ocean resource management. Regulatory and other mechanisms to resolve user conflicts, particularly involving fisheries and ocean recreation, are inadequate. Controversies over the use of public resources for private purposes or economic gain, with adverse cumulative impacts on natural resources, has led to public concern and demand for resolution. A Hawaii Ocean Resources management Plan (HORMP) was completed in 1991 and needs to be implemented.

List of Hawaii §309 Projects for FY92 and FY93:

Coastal Hazards

HA(1) Coastal Hazards Project: Beach Management Objectives and Policies and Expanded Shoreline Setbacks, WF, FY92--\$20,000, FY93--\$50,000

HA(2) Coastal Hazards Mitigation Planning Project, WF, FY92--\$60,000

Public Access

HA(3) Coastal Land Acquisition Program: Public Access, Hazards, and Wetlands Acquisition Program, WF, FY92--\$0, FY93--\$30,000, FY94--\$60,000

Ocean Resources

HA Development of a Regional Ocean Resource Management Planning Program, WF, FY92, CANCELED. Funds reprogrammed--See HA(2) Coastal Hazards Mitigation Planning Project. (Note: Ocean Management Project funded with §306 funds in FY93 at \$75,000)

(Hawaii requested but received no §309 funding for PSM in FY92 and FY93)

A summary evaluation of each §309 project is attached.

State Contact: Hawaii CZM Program
Office of State Planning
P.O. Box 3540
Honolulu, HI 96811-3540
808-587-2875 (Phone)
808-587-2899 (Fax)

Contacts: Carolyn Stewart
Tom Eisen

Title: HA(1) Coastal Hazards Project: Beach Management Objectives and Policies and Expanded Shoreline Setbacks, WF, FY92--\$20,000, FY93--\$50,000
(plus §306 funds used: FY92--\$55,000, FY93--\$12,800)

Project Description: The purpose of this project is to reduce hazards risks through improved coastal hazards and beach management policies and setback requirements. This project involves three components: 1) compilation of scientific and historical information; 2) an educational campaign; and 3) amendments to Chapter 205A, HRS, to incorporate changes to the objectives and policies related to coastal hazards and beach management, and shoreline setback provisions.

Length of Project: 3 Years (July 1, 1992- June 30, 1995)

Project Benchmarks

FY92

- literature search, bibliography, field research, digitized mapping of four Main Hawaiian Islands

FY93

- digitized mapping of Molokai & Lanai
- develop plan for education campaign
- develop and complete a video and PSAs

FY94

- draft legislation to amend Chapter 205A, HRS
- public meetings
- draft legislation to Legislature and testimony for presentation to legislature
- action alerts throughout legislative session
- adoption of program change

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

Project Results

- Proposed Program Change:* Not Accomplished. Passage of Legislation and program amendment not scheduled until 1995. (L)
- Summary of Results/Enhancement:* Project not completed yet.
- Project Products*
 - 1) An Atlas of Natural Hazards in the Hawaiian Coastal Zone
 - 2) Coastal Hazards Video and PSAs
- Other Benefits:* Narrated, indexed and catalogued aerial videos of entire coastline of Hawaii.
- Unexpected Results:* No
- Impediments to Project Success:* No
- Is Project of National/State/Local Importance:* Yes, to all three.

Title: HA(2) Coastal Hazards Mitigation Planning Project, WF, FY92--\$60,000
Plus \$306 funds used: FY92--\$60,000)

Project Description: The purpose of this project (as redesigned) is to develop alternative natural disaster prevention and mitigation options to reduce the risks of life and property from major storm events such as Hurricane Iniki in 1992. This project involves: (1) hurricane and tropical storm risk analysis; (2) analysis of storm damage; (3) focus group to develop assumptions about frequency and severity of storms to hit Hawaii over next 50 years; (4) review of past mitigation efforts; (5) develop alternative natural disaster prevention and mitigation options; (6) participatory planning workshops; (7) develop coastal hazards mitigation plan including enforceable natural disaster mitigation policies to reduce the vulnerability of structures and infrastructure to future storms and hurricanes; (8) County Council and State Legislative consideration during 1994 session; and (9) strategy to implement recommended hazard mitigation measures and draft appropriate regulatory and non-regulatory mechanisms to implement the measures resulting in a long-term action plan for coastal hazards mitigation (added as Phase 2 FY94 project).

Length of Project: 1 Year (July 1, 1992 - June 30, 1993)

No Cost Grant Extension for FY92 approved through December 1993

NOTE: This is turning into a multi-year project with mixed 309/306 \$

Project Benchmarks

FY92 (Phase 1)

- background study report on hurricane and tropical storm risk analysis
- background study report on analysis of storm damage
- focus group meetings
- review of past mitigation efforts
- draft report on findings from background studies and alternative mitigation options
- participatory planning workshops
- coastal hazards mitigation plan
- County council and Legislative consideration

FY93 - No work with \$309 funds

FY94 (Phase 2) - expected with combination of \$306/\$309 funds

- hire consultant to develop strategy to implement hazard mitigation plan
- adoption of long-term action plan
- support passage of legislation in 1996

Project Completion Status

FY92 Work - Completed

Project Results

a) Proposed Program Change: Not Accomplished

Coastal Hazards Bill introduced but State Legislature failed to pass the Bill or a Concurrent Resolution which replaced the Bill during the 1994 Session. (L)

b) Summary of Results/Enhancement: No Results Yet. Project is turning into a multi-year project with passage of coastal hazards legislation now expected in 1996.

c) Project Products

- 1) Hawaii Coastal Hazard Mitigation Planning Project Report
- d) *Other Benefits:* High visibility of coastal hazard issues from wide distribution of Project Report
- e) *Unexpected Results:* See note below.
- f) *Impediments to Project Success:* See note below .
- g) *Is Project of National/State/Local Importance:* State and Local

Note: Because Legislation failed to pass, this one-year §309 project has turned into a multi-year mixed §306/§309 funded project. The timelines have been extended. Instead of legislation passing in 1994, legislation now expected to pass in 1996.

Title: HA(3) Coastal Land Acquisition Program: Public Access, Hazards, and Wetlands Acquisition Program, WF, FY92--\$0, FY93--\$30,000, FY94--\$60,000

Project Description: The purpose of this project is to develop a new coastal acquisition program for access rights, easements and rights-of-way perpendicular and parallel to the shoreline, as well as for coastal parks and open space lands. The tools developed by this program will also be applicable to the acquisition of wetland areas and small shoreline parcels threatened by erosion and other coastal hazards. The project involves several components: 1) review and evaluation of innovative acquisition methods and recommendations for applicability to Hawaii; 2) listing of priority lands for acquisition and authorization of administrative action; and 3) legislative or administrative action to authorize an acquisition program.

Length of Project: 3 Years (July 1, 1993- June 30, 1996)

Project Benchmarks

FY93

- final report on acquisition methods

FY94

- compile inventories of acquisition needs
- prepare report supporting acquisition of priority areas & recommended acquisition mechanisms

FY95

- draft legislation or administrative authorization mechanisms, circulate, revise
- adoption of legislation or administrative authorization mechanism

Project Completion Status

FY93 Work - Completed

FY94 Work - On Schedule

Project Results

- Proposed Program Change:* Not Accomplished. Passage of legislation or adoption of administrative authorization not scheduled until 1996. (L)
- Summary of Results/Enhancement:* Project not completed yet.
- Project Products*
 - 1) Methods and Strategies for Acquiring Coastal Lands
- Other Benefits:* No
- Unexpected Results:* No
- Impediments to Project Success:* No
- Is Project of National/State/Local Importance:* Yes, to all.

LOUISIANA

The §309 Priority Enhancement Needs identified by Louisiana cover three issues:

- Wetlands
- Coastal Hazards
- Cumulative and Secondary Impacts

The problems identified in the §309 priority enhancement issues areas are summarized as follows:

Wetlands

The Corps of Engineers annually dredges about ninety million cubic yards of material in Louisiana coastal areas. This material could be used to create about 9,000 acres of wetlands. However, ongoing problems with disposal of dredged materials from federal navigation projects continues to cause wetlands loss. Consistency review by CMD has not always resulted in modifying the Corps' project design or construction practices. The Corps is constrained with using the least expensive disposal technique and often does not have sufficient funding to carry out CMD recommendations. Thus, spoil is being moved in the most efficient manner, but not located where it can provide the most benefits to the system by either creating wetlands or preventing saltwater intrusion. The CMD has targeted this as the major preventable cause of wetland loss and as a major method to create wetlands in the Coastal Zone.

Coastal Hazards

Hurricanes, storm surge, floods, unstable soils and coastal erosion are the types of coastal hazards most commonly affecting the Louisiana coast. Hurricane rains and high winds usually affect the entire state of Louisiana when they make landfall in the north central Gulf of Mexico. General destruction of the physical, biological and cultural elements follows the path of a hurricane. Eroded barrier islands and beaches may retreat 100 feet under the pounding of storm waves. Rising water and high winds destroy wetlands, levees, highways, bridges and infrastructure (sewer and power lines). The aftermath of a hurricane means the despoilment of the natural systems and cost billions of dollars in property damage of residential and commercial damage.

Storm surges and flooding are also serious coastal hazard problems in Louisiana. Flooding can be the result of not only hurricanes, but also, storms, onshore winds, or heavy precipitation either in the wetlands or adjacent uplands. Storm surge occur other times of the year and directly affect the low intertributary wetlands and more populated natural levees of the Mississippi River.

The Coastal Management Division (CMD) of the State is not primarily responsible for dealing with the hazards issue. This is handled by FEMA with local governments. Because the expertise of the Permit section of CMD does not include the identification of high hazard area, the main programmatic need of the LCRP is the identification and mapping of high hazard areas and the training of CMD personnel in hazards review and evaluation.

Cumulative and Secondary Impacts

The Louisiana coastal zone is characterized by a myriad of uses ranging from conservation projects, such as wildlife management areas, to intensive development, such as offshore platform building yards or industrial complexes. In St. Tammany Parish, one of the fastest growing parishes in the country, sources of pollutants impacting the

The function of the River include: industry, animal holding/management areas, land development, on-site sewage disposal systems, urban run-off, unsewered areas and land disposal. Navigation and flood control projects result in the most severe cumulative and secondary impacts on the wetlands. These activities include: navigation and flood control projects; hydrocarbon extraction; interaction of two or more unrelated activities; and single family residences and camps.

The Louisiana Coastal Resource Program (LCRP) is limited in how it can address cumulative/secondary impacts due to a number of factors. The major problem is that many of the continuing impacts are caused by existing activities that are not subject to coastal use permitting. Further, many activities that cause impacts are in fastlands or uplands, and unless it is demonstrated that they will adversely affect coastal waters, they are exempted from Coastal Use Permitting. Finally, because the LCRP is a permitting rather than a zoning process, CMD must react to proposed activities rather than establishing land use goals for areas.

List of Louisiana §309 Projects for FY 1993

Coastal Hazards

LA (1) Hazards Protocol for the Coastal Use Permit (CUP) Process, WF, FY93 -\$70,000

Cumulative and Secondary Impacts

LA (2) Adverse Impact Study, WF, FY93 -\$45,000

A summary evaluation of each §309 project is attached.

State Contact: Jim Rives
Department of Natural Resources
Assistant Director
LA Coastal Management Division
Phone 504-342-7591
Fax 504-342-9439

Title: LA (1) Hazards Database and Protocol for the Coastal Use Permit (CUP) Process, WF, FY93 - \$70,000

Project Description: The purpose of this project is to create a coastal hazards database which will contain information on riverine flooding, coastal flooding, storm surge, and subsidence. A final report will include a list of hazard-prone communities and especially hazard-prone undeveloped areas. The CMD will also adopt a coastal use permits hazards protocol which will establish the means by which CMD will implement its hazards review and analysis of each CUP application.

Length of Project: 1 year (July 1, 1993 to June 30, 1994)
*6-month extension requested

Project Benchmarks

FY93

- Gather information on flood insurance and prepare report.
- Prepare list of hazard-prone communities.
- Identify coastal uses which potentially have high hazard impacts.
- Prepare draft report and maps.
- Develop hazards protocol.
- Review hazard regulations of other states and determine applicability to Louisiana.

Project Completion Status

On schedule and likely to be completed per approved 6-month extension.

FY93

N/A

Project Results

- a) *Proposed Program Change:* Not on schedule, but still likely to be completed. A protocol will be developed which will change the permit application review process to include hazard review as a routine portion of the review process. (PG)
- b) *Summary of Results/Enhancement:* Enhanced permit review process. Building expertise in hazard mitigation
- c) *Project Products To Date:* Database on effects of hurricanes. Extensive base maps of hurricane storm surge areas, soil maps, tornado and hurricane landings.
- d) *Other Benefits:* Information will be disseminated to local governments.
- e) *Unexpected Results:* N/A
- f) *Impediments to Project Success:* §309 process has been cumbersome, federal NOAA OCRM "nit-picked" everything.
- g) *Is the Project of National/State/Local Importance?* State

Title: LA (2) Adverse Impact Study, WF, FY93 - \$45,000

Project Description: The purpose of this project is to identify and evaluate activities and/or areas that are currently regulated, as well as those activities that are presently exempted from coastal use permitting. Further, a coastal use impact methodology will be developed to identify and evaluate exempted activities which have impacts on coastal waters. A final report produced recommending the need to regulate specific identified uses.

Length of Project: 3 years (July 1, 1993 - June 30, 1995)
6-month extension requested

Project Benchmarks

FY93

- Literature search and report to be completed.
- Methodology developed which will identify and evaluate coastal uses to determine whether they have impacts on coastal waters and whether or not they should be regulated.
- Identify and evaluate exempted and regulated uses and areas—produce report on results.
- Develop final recommendations.

Project Completion Status

Not on schedule, but still likely to be completed.

FY93 Work - N/A

Project Results

- a) Proposed Program Change:* Definitions of exemptions for rules and procedures for coastal permits will be changed. Specifically, the definition for direct impact. (RR)
- b) Summary of Results/Enhancement:* None
- c) Project Products To Date:* None
- d) Other Benefits:* None
- e) Unexpected Results:* None
- f) Impediments to Project Success:* None
- g) Is the Project of National/State/Local Importance?* State

MAINE

The §309 priority enhancement needs identified by Maine cover 4 issues:

- Cumulative and Secondary Impacts
- Wetlands
- Coastal Hazards
- Public Access

The problems identified in the §309 priority enhancement areas are summarized as follows:

Cumulative and Secondary Impacts

Maine lacks the technical information, structural capacity, and coordination among towns and between towns and the state necessary to measure, address, and prevent adverse cumulative effects of development. Natural, social and economic values are threatened by incremental decisions made in the absence of adequate information on cumulative effects. Approximately 30 percent of Maine's shellfish flats are closed because of point and nonpoint source pollution. Decisions on coastal islands are made without carrying capacity information. Marine and estuarine habitats at risk from cumulative impacts are not covered in Coastal Program core laws.

Wetlands

Wetlands are not fully protected from cumulative impacts under shoreland zoning and wetland regulations. Wetlands under 10 acres in size are not regulated by state law. Tidal flow to salt water wetlands has been restricted by roadway and tide gate construction. Wetland inventory data and information on wetland alterations are incomplete, out-of-date, and scattered among state agencies. Inappropriate shoreland development can prevent the natural long-term landward migration of fringing marshes and other coastal habitats as the sea level rises, causing a loss of coastal wetlands. Federal, State and local roles in wetlands protection are not clear.

Coastal Hazards

Cumulative impacts of continued development along eroding shorelands threaten the natural protective features of beaches and risk loss of public and private property. The problem is exacerbated by continuing sea level rise. Existing state regulations in some circumstances allow reconstruction of structures damaged by coastal storms. Storm damage can cause exposure and washing away of septic fields, which contaminate estuarine and marine waters and may force closure of productive clam flats and shellfish beds. Property owners, developers, and the public do not appreciate the severity of coastal hazards, which results in inadequate regulations and a lack of support for enforcement at both local and state levels.

Public Access

Public beaches and beach parking in southern and mid-coast Maine are seasonally overcrowded. In some areas, there is intense competition for mooring space, service facilities and shore frontage between maritime interests, recreational and other users. Maine landowners traditionally have allowed informal public access to the shoreline. Because this system worked so well in the past, public access was not a state priority and legal public access rights became obscure. But since the 1980's, new owners less tolerant of open access have reduced the amount of accessible private property. Access to the shore is limited by private ownership rights that extend to the low tide mark. The public

right to access intertidal areas under the Public Trust Doctrine has been interpreted to exclude access for recreation purposes.

List of Maine §309 Projects for FY92 and FY93

ME (1) Section 309 Strategy Revision, WF, FY92--\$12,688

Cumulative and Secondary Impacts

ME (2) Maine Estuary Program: Project Coordination and Public Participation, WF, FY92--\$84,111

ME (3) Coastal Islands Policy, Phase I, PSM, FY92--\$35,000

ME (4) Coastal Islands Development & Conservation Strategy, Phase II, FY93--\$32,529

Coastal Hazards

ME (5) Shoreline Erosion Management: Phase II, PSM, FY93--\$95,000

A summary evaluation of each §309 project is attached.

State Contact: David Keeley
Maine State Planning Office
State House Station #98
184 State Street
Augusta, ME 04333
207-287-3261 (Phone)
207-287-6489 (Fax)

Title: ME(1) Section 309 Strategy Revision, FY92--\$12,688, WF.

Project Description: Revision of Maine's Section 309 strategy (Nov. 92) was undertaken and merited an increase in the weighing factor.

Length of Project: 3 Months (October 1, 1992 - December 3, 1992)

Project Benchmarks

FY92: 12/3/92 Submitted 309 Strategy Revision to OCRM

Project Completion Status

FY92 Work - Completed, On Schedule

Project Results

- Maine revised their original §309 strategy to obtain a higher ranking. Maine was successful and OCRM approved the revision.

Title: ME (2) Maine Estuary Program: Project Coordination and Public Participation, WF, FY92--\$84,111, FY \$40,000

Project Description: The goals of the Maine Estuary Program are to: (1) evaluate the importance, function and value of selected coastal resources, tidal and sub-tidal (e.g. wetlands); (2) examine the constellation of resources, and threats to those resources in a representative estuary, the Damariscotta; (3) establish for the Damariscotta River estuary a collaborative watershed-wide planning and regulatory scheme; and (4) systematically replicate the Program's efforts in the Damariscotta Estuary to other estuaries along the Maine coast.

In 1992-1993, the Maine Coastal Program initiated a pilot estuary project in the Damariscotta River watershed in the mid-coast area. The Program envisions this pilot project as an opportunity to focus resources on a manageable area of the coast and to develop new mechanisms at both the state and local levels to control the cumulative and secondary impacts of growth and development in a settled, but relatively pristine area.

Length of Project: 3 Years (July 11, 1992 to June 30, 1995)

Project Benchmarks

FY92

- Selection of project area 8/31/92
- Local steering committee selected 9/30/92
- Hiring of project staff 4/92

FY93

- Development of Preliminary GIS data base 11/93
- Completion of economic valuation, part I 12/93

FY94/95

- Completion of characterization phase Fall 1994
- Draft management plan 12/94

Project Completion Status:

FY92 Work - Completed, On Schedule

FY93 Work - Not On Schedule But Still Likely To Be Completed

Project Results

- Proposed Program Change:** On track and expected to be accomplished by June, 1995. Establishment of a new approach to estuary management in Maine building on local comprehensive plans. Changes to state environmental laws to incorporate consideration of cumulative impacts. Specific changes that address those impacts of MOA concern. (P, L)
- Summary of Results/Enhancement:** Previously there was very little regional planning on coastal areas. This initiative demonstrates an approach to coastal watershed management and serves as an example to other coastal areas.
- Project Products to Date:** Report: "The Damariscotta River Estuary: What is it Worth?" An estimate of the economic value of Marine-Related Activity. GIS Database: Damariscotta River Watershed Database. Surveys: Intertidal characterization at the Damariscotta River. Survey of Smelt Runs.
- Other Benefits/Spin-off:** None

- e) *Unexpected Results: none*
- f) *Impediments to Project Success: Difficult working with independent nature of Maine communities.*
- g) *Was the project national, state or local in importance? State*

Title: ME (3) Coastal Islands Policy, Phase I: Responding to Priority Issues, PSM FY92--\$35,000.

Project Description: Phase I focused on identifying the distinctive characteristics and special needs of islands; heightening awareness of particular threats to island resources and determining how state laws and policies might be changed to develop a more coordinated approach to island issues.

Length of Project: 1 year (August, 1992 to June, 1993)
*No-cost extension

Project Benchmarks

FY92

- 2/93 Establish Interagency Island working Groups: Island Land Use Work Group and Island Water and Sewer Work Group.
- 9/92 Preliminary Work Plan

Project Completion Status

Not on schedule.

Project Results

- a) *Proposed Program Change:* On track and expected to be accomplished by 1994. Phase I of the project was to lay the groundwork for program changes to be achieved the following year, in Phase II. (NPC)
- b) *Summary of Results/Enhancement:* Island management needs explicitly considered by local and state government.
- c) *Project Products to Date:* Workshops: Carrying capacity as a tool for Island Planning. 6/93 Harpswell Island Management Plan "Islands of Harpswell Video" and brochure "Draft Supplement to the Comprehensive Planning Manual on Islands."
- d) *Other Benefits/Spin-off:* Issue of island carrying capacity considered by regulatory agency.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Isolated nature of islands and Yankee independence.
- g) *Was the project national, state or local in importance?* Local and state. Maine Islands are unique.

Title: ME (4) Coastal Islands Development and Conservation Strategy, Phase II, FY93--\$32,529, WF

Project Description: Phase II of the Coastal Islands Policy Project focused on pursuing changes to laws and policies affecting the use and development of Maine's islands.

Length of Project: 1 year (July 1, 1993 to June 30, 1994)

Project Benchmarks

FY93

- 4/94 draft recommendations by project work groups
intern report on Louds Island Management Plan
- 1/94 Louds Island Natural Resource Inventory Completed

Project Completion Status: Completed

Project Results

- a) *Proposed Program Change:* Improved local management of island resources. Successfully introduced revision to state's subsurface wastewater disposal roles of the plumbing code. (RR)
- b) *Summary of Results/Enhancement:* Revisions to land use regulation, commission guidance document and development of model island ordinance.
- c) *Project Products to Date:* "Resource Guide to Island Inventories"; 9/93 "Recent Island Development Trends in Maine: A Preliminary Study"; 4/94 "Exploring Limits: Making Decisions about the Use and Development of Maine's Islands"
- d) *Other Benefits/Spin-off:* Major improvement in education of island communities and state resource managers.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* None
- g) *Was the project national, state or local in importance?* State

Title: ME (5) Shoreline Erosion Management, Phase II, PSM, FY93--\$95,000

Project Description: Phase I of the project developed a technique to monitor long-term shoreline change and applied the technique to three pilot areas. During Phase II, this work was extended to beaches in York and Cumberland county.

Length of Project: 2 years (July 1, 1992 to June 30, 1994)

Project Benchmarks

FY92

- Complete shoreline change database and analysis 5/94
- Complete coastal hazard maps for 30 representational beach systems 6/94
- Complete draft changes to Sand Dune Rules, NRPA, and shoreland zoning guidelines 6/1/94

FY93

Project Completion Status: Completed, On Schedule

Project Results

- a) *Proposed Program Change:* On track. Changes to the rules of the Sand Dune Law, Natural Resource Protection Act and Mandatory state guidelines for shoreland zoning to reflect standards for designated erosion areas and setback based on erosion rates. (RR)
- b) *Summary of Results/Enhancement:* Ongoing changes to local ordinances.
- c) *Project Products to Date:* Coastal Hazard Maps and Paper: Dickson, S.M & J.T. Kelley. 1993. "Shoreline Change of Maine's Beaches Using a Highly Precise Measurement Technique from Historic Air Photograph," Geological Soc. of Am. Bull. Vol. 25:6 A-444.
- d) *Other Benefits/Spin-off:* New innovative and cost-effective approach to documenting shoreline change.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* None
- g) *Was the project national, state or local in importance?* National. The techniques employed in measuring shoreline retreat provide more accurate results than those used by others in the United States.

MARYLAND

The §309 priority enhancement needs identified by Maryland cover four issues:

- Wetlands
- Hazards
- Cumulative and Secondary Impacts
- Special Area management Plans (SAMP)

The problems identified in the §309 priority enhancement issue areas are summarized below:

Wetlands

Maryland has lost about 73 percent of its original wetlands through urbanization, agriculture and other activities since the 1780s. State tidal and non-tidal wetlands permitting programs now offer significant protection of the state's remaining wetlands. However, increasing population and land development will result in increased pressures for construction activities in wetlands. Even when mitigation projects are undertaken, duplicating pre-existing wetland functions is difficult. In their 1992 Assessment, Maryland identified the need for more detailed mapping of nontidal wetlands to enhance implementation of the permitting and mitigation provisions of the state wetlands law. Identification of potential mitigation sites was needed to attain no-net-loss/resource gain goals, as well as viable mitigation/restoration sites which can replicate wetland functions lost in mitigation. There was also a need to determine the long-term impacts of shore erosion control measures on living aquatic resources. Increased public education was also needed to support wetlands regulation and enforcement.

Hazards

Maryland's coastline is at risk from shore erosion, flooding, hurricanes, northeasters, storm surge, inundation and subsidence. A need was identified to investigate setback standards along the shorelines of the Chesapeake Bay and its tidal tributaries to more effectively implement a coastal hazards management program. Sea level rise scenarios are needed to help the state evaluate the adequacy of its existing programs. Public education to make the public aware of the threat of coastal hazards and build support for measures to reduce the problems is also needed.

Cumulative and Secondary Impacts

The impacts of growth and development in Maryland have been significant over the past twenty years and are expected to continue to adversely affect water quality, sensitive coastal areas, and fish and wildlife. Such adverse impacts led to the Chesapeake Bay Critical Area Program Law, state sediment control, stormwater management and agricultural non-point pollution control programs, and state programs to protect areas of natural resource value. There is a need to continue to refine and enhance these existing programs to analyze, address and mitigate cumulative and secondary impacts from anticipated development. Focus areas include nonpoint pollution control, growth management, and local forest conservation initiatives.

Special Area Management Plans

Maryland's Chesapeake Bay Critical Area Program has been sited as the most comprehensive example of SAM planning. This area has been subject to significant development pressures resulting in cumulative and secondary impacts on significant coastal

resources. The Severn River Vessel Management Plan is another example of a SAMP, developed to address conflicts between uses on the river and reduce adverse environmental impacts. Based on these successful experiences, Maryland planned to pursue additional vessel management plans, watershed plans, greenway plans, plans for areas of special ecological value, and local special area management plans.

Funding Maryland Received

FY92 WF--\$181,600 FY93 WF--\$226,000
(Maryland received no §309 funds for PSMs)

List of Maryland §309 Projects for FY92 and FY93

Wetlands

MD(1) St. Martin's River Wetlands Watershed Management Plan, WF, FY92--\$45,000--
PROJECT CANCELED (see ME (2)(3)(4) below)

MD(2) Parker's Creek Wetlands Watershed Management Plan, WF, FY92--\$16,000 +
\$24,000, FY93--\$23,000

MD(3) Big Annesmessex River Wetlands Watershed Management Plan, WF, FY92--
\$45,000 + \$7,664, FY93--\$23,000

In FY93 Somerset County WITHDREW REQUEST/asked for ONE YEAR DELAY

Cumulative and Secondary Impacts

MD(4) Comprehensive Forest Conservation Programs, WF, FY92--\$75,000

MD(5) Marine Sewage Pump-Out Program, WF, FY93--\$38,000

MD(6) Stormwater Management Pond Mitigation, WF, FY93--\$46,000

MD(7) Sensitive Areas Plan and Implementation Program for St. Mary's County, WF,
FY93--\$25,898

MD(8) Protection of Sensitive Areas- Hartford County, WF, FY93--\$20,000

MD(9) Kent County Comprehensive Plan: Natural Resource Inventory, Analysis, and
Draft Plan Element, WF, FY93--\$10,000

MD(10) Habitat and Sensitive Area Protection for Charles County, WF, FY93--\$11,102

MD(11) Revision of Critical Area Water-Dependent Facilities Regulations, WF, FY93--
\$29,000

A summary evaluation of each §309 project is attached.

State Contact: Maryland Coastal and Watershed Resources Division
Department of Natural Resources
Tawes State Office Building
500 Taylor Avenue
Annapolis, MD 21401
410-974-2784 (Phone)
410-9974-2833 (Fax)

Contacts: Patrick Burton
Gwynne Schultz

**Title: MD(1) St. Martin's River Wetlands Watershed Management Plan,
WF, FY92--\$45,000--PROJECT CANCELED**

Project funding reprogrammed to three projects: See MD (2), MD (3), and MD (4) Below.

Project Description: The purpose of this project is to address wetlands protection and mitigation through the development and adoption of a wetlands watershed management plan for the St. Martin's River watershed in Worcester County, Maryland. Once certified by the State's Water Resources Administration, DNR, the watershed management plan will be the basis of state nontidal wetlands permitting decisions and mitigation site approval in the watershed. This project involves two components: (1) development of the wetlands watershed management plan; and (2) review and certification of the final plan by the state.

Length of Project: 1 Years (October 1, 1992 - September 30, 1994)
(Project canceled and funds reprogrammed)

Project Benchmarks

FY92

- Drafted watershed management plan

FY93

- Revised plan, public hearings, approval, certification

Project Completion Status

FY92 - FY93 - project canceled.

Title: MD(2) Parker's Creek Wetlands Watershed Management Plan, WF.
FY92--\$16,000 + \$24,000, FY93--\$23,000

Project Description: The purpose of this project is to address wetlands protection and mitigation through the development and adoption of a wetlands watershed management plan for Parker's creek in Calvert County. Once certified by the State's Water Resources Administration, DNR, the watershed management plan will be the basis of State nontidal wetlands permitting decisions and mitigation site approval in the watershed. This project involves two components: (1) development of the wetlands watershed management plan; and (2) review and certification of the of the final plan by the State.

Length of Project: 2 Years (October 1, 1992- September 30, 1994)
No Cost Grant Extensions Granted through April 30, 1994 for FY92 funds
Extension granted through March 31, 1995 for FY93 funds

Project Benchmarks

FY92

- formation of advisory task force
- mapping of wetlands, land use, forest cover, flood management areas
- documentation/assessment of wetlands functions
- identification of potential mitigation sites
- draft wetlands watershed management plan

FY93

- revise draft plan
- submit plan for approval, public hearings, certify plan

Project Completion Status

FY92 Work - Completed

FY93 Work - Not On Schedule -Started 6/15/94 due to delays in finishing FY92 work

Project Results

- a) *Proposed Program Change:* Not Accomplished-- But expected to be accomplished around 3/95. Plan certification scheduled for 3/95. (P)
- b) *Summary of Results/Enhancement:* The Parker's Creek Wetlands Watershed Management Plan, when adopted, will promote a more comprehensive approach to wetland protection in the watershed. The Plan will contain information on wetland function, potential mitigation sites, and a plan for limiting cumulative impacts.
- c) *Project Products*
 - 1) Mapping
 - 2) Assessment Report
 - 3) Parker's Creek Wetlands Watershed Management Plan
- d) *Other Benefits:* County was able to secure additional funding from the State's Water Resources Administration for additional wetland assessments and from the US Army Corps of Engineers for a flood study. These items will help produce a stronger plan.
- e) *Unexpected Results:* No

- f) *Impediments to Project Success:* 1) Project delayed due to protracted illness of a key county staff member; 2) Delays in coordinating with other agencies on this project.
- g) *Is the Project of National/State/Local Importance:* State and Local.

Title: MD(3) Big Annemessex River Wetlands Watershed Management Plan, WF, FY92--\$45,000 + \$7,664, FY93--\$23,000

NOTE: Somerset County did not request funds for FY93. Funds not reprogrammed; one year extension will be requested for use of the funds in FY94.

Project Description: The purpose of this project is to address wetlands protection and mitigation through the development of a wetlands watershed management plan for the Big Annemessex River in Somerset County. Once certified by the state, the watershed plan will guide nontidal wetlands permit decisions and approval of proposed mitigation sites in the watershed. The information will be used in the County's subdivision and site plan review process, and may be incorporated into the comprehensive plan and zoning ordinance. This project involves two components: (1) development of the wetlands watershed management plan; and (2) review and certification of the final plan by the state.

Length of Project: 2 Years (October 1, 1992- September 30, 1994)
FY92 No Cost Grant Extensions Received through March 31, 1994
FY93 County asked to delay project funding until FY94

Project Benchmarks

FY92

- develop RFP for plan development, define program goal, undertake field work
- complete identification of resources, evaluate existing and potential protection measures
- draft plan including watershed maps, functional assessment of nontidal wetlands, and identification of potential mitigation sites

FY93

- review and finalize plan
- submit plan for approval, public hearings, certify plan.

Project Completion Status

FY92 Work - Completed

FY93 Work - Delayed- County requested one year, without funds, to review FY92 efforts. Wants \$309 funds in FY94 to finalize plan.

Project Results

a) *Proposed Program Change:* Not Accomplished

- 1) Certification of Wetlands Watershed Management Plan (P)

b) *Summary of Results/Enhancement:* Project not completed yet.

c) *Project Products*

- 1) Draft Big Annemessex River Wetlands Watershed Management Plan

d) *Other Benefits:* No

e) *Unexpected Results:* No

f) *Impediments to Project Success:* On year delay due to large work load of small county staff.

g) *Is the Project of National/State/Local Importance:* Local/State

Note: Increase of \$7,664 in project funds allowed County to select the consultant that it felt was best qualified to assist in plan development.

Title: MD(4) Comprehensive Forest Conservation Programs, WF, FY92--
\$75,000 +\$13,336

Project Description: The purpose of this project is to address cumulative and secondary impacts of development through comprehensive coordinated State and local forest conservation programs required under the State's new Forest Conservation Act. The objective of the Act is to provide for the retention of existing forest cover on sites proposed for development and only allow the clearing of forest cover essential to the development project. Required forest conservation plans must include forest buffers adjacent to streams and critical habitat. This will minimize non-point source pollution from development. This project involves two components: (1) use of the forest inventory to complete development of the comprehensive State Forest Conservation Program; and (2) establishment of local forest conservation programs for those jurisdictions that do not develop their own programs.

Length of Project: 1 Years (October 1, 1992- September 30, 1993)
No Cost Grant Extension Received through March 31, 1994

Project Benchmarks

FY92

- 1) Use Forest Inventory to Complete State Forest Conservation Plan
 - contract to develop and field test methodologies to use forest inventory to meet state's responsibilities under Act and to develop project tracking system
 - revised methodologies/ develop tracking system
 - develop enforceable policies and criteria to use in review and approval of forest conservation plans
 - MOU with state agencies on integration of forest conversation plan review and approval with other regulatory programs
- 2) Establish Local Forest Conservation Plans
 - hire contract staff to establish local forest conservation program
 - establish policies and procedures for plan review and approval and integration with local development review process
 - develop computerized data base on land use, land ownership and pertinent features
 - establish tracking system
 - sign MOU with other government agencies

Project Completion Status

FY92 Work - Completed

Project Results

a) Proposed Program Change: Accomplished

- 1) Comprehensive State Forest Conservation Program established (P), and (2) Local Forest Conservation Programs established. (LP)The Maryland Forest Service has adopted enforceable policies and procedures for the review and approval of the local forest conservation programs. The Maryland CZMP expects to include the Forest Conservation Act as part of a RPI package in 1995.

b) Summary of Results/Enhancement

- 1) The Comprehensive State Forest Conservation Program oversees implementation of the Forest Conservation Act (review and approval of local programs).
- 2) The Local forest conservation programs implement the forest conservation requirements at the local level.

- 3) Local Forest Conservation Programs adopted for 13 of Maryland's 21 Counties. Remaining eight other county programs under development and/or state review.
- c) *Project Products*
- 1) Maryland Forest Service: Forest Conservation Act Project Tracking System
 - 2) Mylar overlays to the County topographic maps depicting Forest Inventory Data
 - 3) Final Report for the Forest Inventory Project
 - 4) MOU with the State Department of General Services to ensure consideration of the Forest Conservation Act requirements in undertaking State construction projects.
 - 5) Local Forest Conservation Programs for 13 Maryland Counties.
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* 1) delays occurred in testing the prototype tracking system due to difficulties in achieving the upgrading of computer capabilities in the State's regional offices and in the project's test center, Cecil County; 2) software program to implement tracking system needed minor modifications to address project objectives
- g) *Is the Project of National/State/Local Importance:* State and Local.

Title: MD(5) Marine Sewage Pump-Out Program, WF, FY93--\$38,000

Project Description: The purpose of this project is to facilitate implementation of the State's Marine Sewage Pump-Out Program whose goal is to prevent overboard disposal of sewage from vessels and thereby reduce nutrient inputs into ten Chesapeake Bay tributary basins, as well as the entire Maryland portion of the Chesapeake Bay. This project involves: 1) develop legislation to eliminate overboard disposal of sewage from vessels and require pump-out stations at most marinas; and (2) work with EPA to designate "No Discharge Zones".

Length of Project: 3 Years (October 1, 1993- September 30, 1996)

Note: Boating Administration has withdrawn request for FY94 funding due to the receipt of a large grant from the US Department of the Interior through the Clean Vessel Act. These funds will be used to continue this effort.

Project Benchmarks

FY93

- Draft and introduce legislation eliminating 2-mile exemption and require securing of "Y" valve (which allow for the direct overboard discharge of raw sewage)
- conduct marina visits
- install pump-out stations at 10 locations
- Upon passage of legislation, notify marinas that the two mile exemption has been removed

FY94/95

- Draft and introduce legislation requiring pump-out stations at most marinas
- Work with EPA on designation of "No Discharge Zones"
- Promote installation of pump-out stations

Project Completion Status

FY93 Work - On Schedule

Project Results

a) Proposed Program Change: Partially Accomplished

The following two bills passed the Maryland's General Assembly in the 1994 session:

SB 325 passed, requiring, on a phased-in basis, all marinas with 50 or more slips and capable of berthing vessels 22 feet or larger to obtain a pump-out station. This bill also eliminates the "two mile exemption" to the pump-out requirements that exists for certain new and expanding marinas. (L)

HB 1489 passed, making federal marine sanitation device requirements a part of State law and thus allow State enforcement. This bill includes language requiring that "Y valve" be secured to prevent overboard discharge of sewage.

The Maryland CZMP will add these new laws to its program, as part of a Program Change package its submits to OCRM in 1995.

b) Summary of Results/Enhancement

The Legislation amended current regulations to remove an exemption which allowed marinas (with over ten slips) to not install a pump-out station if they are within two

miles of a pump-out station . The legislation also requires that "Y" valves, which allow for the direct overboard discharge of raw sewage, always be secured in accordance with Coastal Guard guidelines.

These two pieces of legislation strengthen Maryland's ability to reduce the amount of marine sewage released to the Bay and its Tributaries.

c) Project Products

- 1) SB 325 Legislation
- 2) HB 1489 Legislation

d) Other Benefits: No

e) Unexpected Results: No

f) Impediments to Project Success: No

g) Is the Project of National/State/Local Importance: State

Title: MD(6) Stormwater Management Pond Mitigation, WF, FY93--
\$46,000

Project Description: The purpose of this project is to test the use of the groundwater siphon as a technical solution to reduce the discharge temperature from stormwater management ponds. Current stormwater management pond designs do not address thermal impacts to temperature sensitive receiving watersheds such as Maryland's trout streams. This demonstration project involves: (1) construction of a groundwater siphon in one of two stormwater management ponds at the University of Maryland Baltimore Campus to test and compare water temperature discharges; (2) develop design guidelines for use of groundwater siphons in stormwater management designs for temperature sensitive areas; (3) amend regulations to adopt groundwater siphon design guidelines.

Length of Project: 1 Year (October 1, 1993- September 30, 1994)
Expect 1-Year Extension will be requested

Project Benchmarks

FY93

- Hire water resources engineer to design and oversee construction of siphon
- gather as-built information on ponds
- perform general literature search and preliminary design of siphon
- survey the site and monitor construction of siphon retrofit to ensure accuracy
- begin equipment calibration and data collection
- collect data from the site and rainfall data
- research other potential temperature mitigation ideas and begin draft guidelines
- collect data from site and analyze
- finalize guidelines and prepare presentation on results. Recommend implementation of groundwater siphon on all pond applicable to development criteria.

Project Completion Status

FY93 Work - Not On Schedule/Delayed - A one-year extension will be requested from NOAA.

Project Results

- a) *Proposed Program Change:* Not Accomplished— project delayed.
 - 1) Design Guidelines (PG)
 - 2) Amended Regulations (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) Draft Design Guidelines (by 12/94)
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* Time delays
- g) *Is the Project of National/State/Local Importance:* State

Title: MD(7) Sensitive Areas Plan and Implementation Program for St. Mary's County, WF, FY93--\$25,898

Project Description: The purpose of this project is to enable St. Mary's County to develop and incorporate a Sensitive Areas Protection Element into their local comprehensive plan, in compliance with the requirements of the Economic Growth, Resource Protection and Planning Act of 1992. This project involves: (1) data collection, analysis and development of draft comprehensive plan sensitive areas protection element; (2) evaluation of county's development regulations and updated development regulations to implement plan element; and (3) monitoring programs, reevaluate new plan and regulations.

Length of Project: 3 Years (October 1, 1993 - September 30, 1996)

Project Benchmarks

FY93

- research, inventory, data entry
- data analysis and policy preparation
- plan preparation and public review
- comprehensive plan amendment to adopt sensitive area plan element

FY94

- county development regulations evaluated and necessary changes adopted to implement new plan element

FY95

- monitoring programs established and new plan element and implementing regulations reevaluated.

Project Completion Status

FY93 Work - Not On Schedule- A three-month extension will be requested

Project Results

- a) *Proposed Program Change:* Not Accomplished -- program change (1) adoption of a sensitive area plan element scheduled for after 9/94 (LP), and (2) implementing regulations scheduled for approx. 9/95 (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products:* None
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* Time delays
- g) *Is the Project of National/State/Local Importance:* Local/State

Title: MD(8) Protection of Sensitive Areas- Hartford County, WF, FY93--
\$20,000

Project Description: The purpose of this project is to develop a sensitive areas element for the Hartford County Master Plan, focusing on the Winters Run Watershed as a test watershed to help develop a watershed model that may be applied to other watersheds in Hartford County. This project involves: (1) development of a common GIS database; (2) development of a watershed model using Winter's Run Watershed as a test case to assess cumulative NPS pollution impacts within the watershed; and (3) development of a sensitive areas protection element as an update to the Hartford County Master Plan.

Length of Project: 3 Years (October 1, 1993- September 30, 1996)

Project Benchmarks

FY93

- obtain or develop best thematic digital data to delineate sensitive areas for use in NPS pollution model
- utilize Nonpoint Source Assessment and Accounting System (AAS) to examine and evaluate current conditions contributing to NPS pollution in Winters Run Watershed.
- inventory of sensitive areas within the watershed: steep slopes, 100-year floodplain, nontidal wetlands, habitats for threatened/endangered species
- develop growth scenarios and evaluate future conditions contributing to nps pollution to target potential solutions to watershed issues
- determine the effects of change in nutrient loads on water quality in Winters Run streams and the impact of loading scenarios on existing SAV resources.
- draft/final reports on Winters Run watershed study results and map of sensitive areas

FY94/FY95

- refinements to land use/watershed model
- examine applicability of model to other watersheds in Hartford county
- review of Land Use Plan, existing programs, regulations and procedures
- draft sensitive areas element for Hartford County Master Plan
- adoption of plan element (1996)
- adoption of regulatory changes to implement plan element (1997)

Project Completion Status

FY93 Work - Not on Schedule but expect to be completed- A -month extension will be requested

Project Results

a) Proposed Program Change: Not Accomplished

- 1) Adopt Sensitive Areas Protection Plan Element (LP)
- 2) Adopt regulatory changes to implement plan element (RR)

b) Summary of Results/Enhancement: Project not completed yet.

c) Project Products: None

d) Other Benefits: No

e) Unexpected Results: No

f) Impediments to Project Success: Time delays

g) *Is the Project of National/State/Local Importance:* Local/State.

Title: MD(9) Kent County Comprehensive Plan: Natural Resource Inventory, Analysis, and Draft Plan Element, WF, FY93--\$10,000

Project Description: The purpose of this project is to enable Kent County to develop a sensitive areas plan element as part of its comprehensive plan, as required by the Maryland Economic Growth, Resource Protection, and Planning Act of 1992. This project involves: (1) development and adoption of a draft sensitive areas plan element; and (2) development and adoption of ordinance and regulation updates to implement new plan element.

Length of Project: 3 Years (October 1, 1993- September 30, 1996)

Project Benchmarks

FY93

- hire consultant and establish comprehensive plan committee
- hold public meetings and set goals
- draft sensitive areas plan elements
- draft plan, committee review, hold informational meetings

FY94

- adopt sensitive areas plan element (no §309 funds for FY94 to be requested)

FY95

- draft ordinances and regulation updates to implement the new sensitive areas plan element

Project Completion Status

FY93 Work - Not On Schedule- A three-month extension will be requested.

Project Results

a) Proposed Program Change: Not Accomplished

- 1) adoption of Kent County Comprehensive Plan Sensitive Areas Element scheduled for 1995 (LP)
- 2) adoption of ordinances and regulation updates scheduled for 1996

b) Summary of Results/Enhancement: Project not completed yet.

c) Project Products: None

d) Other Benefits: No

e) Unexpected Results: No

f) Impediments to Project Success: Time delays

g) Is the Project of National/State/Local Importance: Local/State

**Title: MD(10) Habitat and Sensitive Area Protection for Charles County,
WF, FY93--\$11,102**

Project Description: The purpose of this project is to accelerate Charles County's efforts to develop and incorporate a Habitat and Sensitive Areas Protection Element into their local comprehensive plan, in compliance with the requirements of the Economic Growth, Resource Protection and Planning Act of 1992. This project involves: (1) resource identification and program analysis including mapping of threatened and endangered species; (2) habitat and sensitive area protection program and policy development; and (3) adoption of new plan element and new subdivision regulations.

Length of Project: 2 Years (October 1, 1993- September 30, 1995)

Project Benchmarks

FY93

- collection and analysis of local policies, programs, regulations for protection of sensitive areas
- prepare draft Habitat and Sensitive Area program document; draft resource mapping specifications; data collection
- public meetings/presentations
- pursue incorporation into County's subdivision regulations
- draft Habitat and Sensitive Area Program policies and procedures for use in update of comprehensive plan
- prepare Habitat and Sensitive Area Program Atlas

FY94/FY95

- completion of comprehensive plan update, public meetings, adoption

Project Completion Status

FY93 Work - On Schedule

Project Results

- a) Proposed Program Change: Not Accomplished*
Adoption of new plan element and new subdivision regulations (LP)
- b) Summary of Results/Enhancement: Project not completed yet.*
- c) Project Products: None*
- d) Other Benefits: No*
- e) Unexpected Results: No*
- f) Impediments to Project Success: No*
- g) Is the Project of National/State/Local Importance: Local/State*

Title: MD(11) Revision of Critical Area Water-Dependent Facilities Regulations, WF, FY93--\$29,000

Project Description: The purpose of this project is to improve the Chesapeake Bay Critical Area program's ability to address adverse impacts from water-dependent facilities not anticipated in the current law and regulations and improve control of water-dependent facilities. This project will involve development and adoption of legislative revisions to the Chesapeake Bay Critical Area Regulations (water-dependent facilities section) to include definitions of new uses, improved siting criteria and improved control of the intensity of uses. Revised Legislation and a Guidance Document will be program change products for this project.

Length of Project: 1 Year (October 1, 1993- September 30, 1994)

Project Benchmarks

FY93

- Finalize proposals for modifying Critical Area Regulations pertaining to water-dependent facilities; meet with Joint Legislative Oversight Committee to obtain approval of proposals; draft legislation and submit to General Assembly
- Meet with groups; organize educational effort
- Continue educational effort; track passage of Legislation by General Assembly and Governor's signature
- Prepare and adopt Guidance Document

Project Completion Status

FY93 Work - On Schedule

Project Results

a) *Proposed Program Change:* Partially Accomplished

Legislation - Passed

Guidance Document - Not Completed Yet- Due 9/94

b) *Summary of Results/Enhancement:* Project not completed yet, but legislation passed.

Legislation refines regulations regarding community piers and calculation of number of slips.

Guidance Document will explain water-dependent facility regulations and steps in the permitting process for such facilities. Intended for local government planners and project applicants.

c) *Project Products*

SB 332- Chesapeake Bay Critical Area Program- Community Piers and Calculation of Number of Slips (1994)

Draft Guidance Document for water-dependent facility regulations within Critical Area law.

d) *Other Benefits:* No

e) *Unexpected Results:* No

f) *Impediments to Project Success:* No

g) *Is the Project of National/State/Local Importance:* State/Local.

MASSACHUSETTS

The §309 priority enhancement needs identified by Massachusetts cover five issues:

- Wetlands
- Coastal Hazards
- Ocean Resources
- Public Access
- Cumulative and Secondary Impacts

The problems identified in the Massachusetts §309 priority enhancement issue areas are summarized as follows:

Coastal Wetlands

Massachusetts has an exemplary system for protecting wetland resources. The first part of the system is the state Wetlands Protection Act which requires local conservation commission reviews of every project in or near a wetland and the establishment of conditions to protect the resource areas. The second part of the system is the Coastal Wetlands Restriction Act which identifies significant wetlands, delineates their boundaries, and establishes a Restriction Order defining what activities may and may not take place within the wetland. Because of funding and staff limitations, Massachusetts' wetlands protection system has not been fully exploited and consequently incremental losses and degradation of coastal wetlands still occur in limited amounts.

Coastal Hazards

The impacts of two significant coastal storms in 1991, Hurricane Bob and the Halloween Northeaster, reminded the people of Massachusetts of the hazards associated with living on the coast. The storms also reminded local and state governments of the threats to public health and safety of the citizens of the Commonwealth and the significant economic exposure the state has from coastal hazards.

Ocean Resources

The aquaculture industry in Massachusetts is relatively small, but makes significant contributions to local economies, particularly on Cape Cod and in southeastern Massachusetts. The review and permitting procedures for aquaculture activities need to be coordinated at the local and state levels; generally they are confusing, overlapping and are applied inconsistently. At present time at least three separate state agencies have jurisdiction over aquaculture, with additional local and federal review. This results in a lengthy permitting procedure, with attendant costs, for the aquaculturist. The Massachusetts Coastal Zone Management Plan does not include the appropriate Program Policies to resolve conflicts between aquacultural activities and for example, traditional fisheries or recreational boating.

Cumulative and Secondary Impacts

Massachusetts lacks a comprehensive, coherent marine water monitoring program. Monitoring plans have developed for specific areas in response to special projects and for different purposes but these plans are not comparable because they measure different parameters or use differing methodologies for measuring similar parameters. Moreover, resultant data are handled in widely varying ways with varying levels of quality assurance/quality control. Thus the Commonwealth has very little idea of the status of the quality of its waters or of trends in quality over time. This makes many aspects of environmental review difficult, if not impossible.

Public Access

For Massachusetts, the goal of having a coast that is truly "open to the general public" remains elusive and largely unfulfilled. Strong legal and political traditions in favor of private property interests still beget extensive exclusion on the roughly 1000 miles of shoreline not under public control. In the case of public beaches, access is considered less than adequate on almost 60% of the total frontage (mainly due to inadequate parking including substantial restrictions on non-resident use of municipal facilities). A telling indicator of the state's need for better coastal access is that a majority of state residents do not visit the coast on a yearly basis, despite the fact that most of the population (86%) lives in counties either entirely or substantially within 50 miles of the sea.

List of Massachusetts §309 Projects for FY92 and FY93

Wetlands

MA(1) Wetlands Protection Regulations Review, WF, FY92 -- \$64,192, FY93 -- \$77,155

MA(2) Small Dock and Pier Environmental Impact Assessment, PSM, FY92 -- \$95,000

MA(3) Title 5 Revisions to Protect Wetlands, PSM, FY92 -- \$68,500

Coastal Hazards

MA(4) Hazard Mitigation, WF, FY92 -- \$100,308, FY93 -- \$105,845

Ocean Resources

MA(5) Marine Fisheries, WF, FY92 -- \$20,000

MA(6) Developing a Framework for an Ocean Management Program, PSM, FY93 -- \$71,000

A summary evaluation of each §309 project is attached.

State Contact: Executive Office of Environmental Affairs
Division of Coastal Zone Management
100 Cambridge Street
Boston MA 02202
617-727-9530 (Phone)
617-727-2754 (Fax)

Contacts: Peg Brady (Small Dock and Pier EIA, Marine Fisheries, Ocean Management)
Lois Bruinooge (Wetlands Regulations Review, Title 5 Revisions)
Jim O'Connell (Hazard Mitigation)

Title: MA (1) Wetlands Protection Regulations Review, WF, FY92--\$64,192, FY93--\$77,155

Project Description: Massachusetts Coastal Zone Management (MCZM) will hire a new senior wetlands policy staff person to revisit aspects of the coastal wetlands protection regulations. This individual will work closely with the Wetlands staff of the Department of Environmental Protection (DEP) in selecting the specific aspects to revisit, setting a schedule for rewriting and completion of the task. Revisions to the Wetlands Protection Act Regulations include: 1) establishment of performance standards for coastal areas subject to flooding, 2) incorporation of emergency regulations into permanent regulations, 3) review of history of DEP decisions and supporting materials regarding coastal armoring and repair, as a means of framing policy and regulatory revision, 4) review of the recommendations of the Barrier Beach Task Force and incorporation of appropriate segments into the Coastal Wetlands Regulations, 5) development of general instructions and outreach materials for the revisions described above.

Length of Project: 2 years (July 1, 1992 - June 30, 1994)

*Requested a no-cost extension from NOAA.

Project Benchmarks:

FY92

- staff person hired

FY93

- coastal wetlands specialist assisted the scientific Coastal Storm Flowage Task Force in preparing its recommendations for inclusion into the Coastal Wetlands Regulations--draft regulations prepared
- researched legal authorities and prepared draft emergency regulations for inclusion into the permanent set of Coastal Wetland Protection Regulations--draft regulations are circulating among DEP field staff
- As part of the Storm Group and Coastal Section Chief policy discussions, MCZM helped develop a coastal erosion policy--draft policy being circulated within DEP
- Barrier Beach Task Force Guidelines issued, including two new policy documents (one from the state's Natural Heritage Program describing the measures required under the state and federal Endangered Species Act to protect piping plovers and other endangered shorebirds on barrier beaches, the other, from DEP, describes the activities that may or may not be permitted under the Coastal Wetlands Regulations on barrier beaches.)
- public education materials in process of being developed
- promulgation of new wetland regulations governing agriculture, increased protection for wetlands in Areas of Critical Environmental Concern, new limited projects for public interest activities, and additional emergency certification provisions

Project Completion Status

FY93 Work - Completed and Ongoing

Project Results

- a) *Program Change:* Not on track, but expected to be accomplished. New regulations for land subject to coastal flow and for emergency work and repair/rebuilds after coastal storms. (L)

- b) *Summary of Results/Enhancement:* The Barrier Beach Guidelines have been issued and two new policy statements have been issued (on Endangered Species Act and the Wetlands Protection Act). When promulgated, the new regulations will enable state to better manage high-hazard coastal areas & better protect coastal wetlands.
- c) *Project Products to Date*
- 1) Draft coastal wetlands regulations based on recommendations from Coastal Storm Flowage Task Force
 - 2) Draft emergency regulations for inclusion into the permanent set of Coastal Wetland Protection Regulations
 - 3) Draft Coastal Erosion Policy
 - 4) Barrier Beach Task Force Guidelines, includes two new policy documents (one from the state's Natural Heritage Program describing the measures required under the state and federal Endangered Species Act to protect piping plovers and other endangered shorebirds on barrier beaches, the other, from DEP, describes the activities that may or may not be permitted under the Coastal Wetlands Regulations on barrier beaches.)
 - 5) Promulgation of new wetland regulations governing agriculture, increased protection for wetlands in Areas of Critical Environmental Concern, new limited projects for public interest activities, and additional emergency certification provisions
- d) *Other Benefits/ Spin-off:*
- 1) Better coordination with the Department of Environmental Protection and other agencies.
 - 2) Wetlands education--the additional staff person hired for this project has been a resource to the public, staff and other agencies.
- e) *Unexpected Results:* The amount of time it takes to get a regulatory change through. A two year program under §309 is not that realistic, it takes time to build consensus.
- f) *Impediments to Project Success:*
- 1) Massachusetts works through a networking program, MCZM cannot do things by itself, another agency has to publish the regulations, hold hearings. The Department of Environmental Protection has been making its own changes to the wetlands regulations and will be putting the coastal aspects on its agenda in the fall (1994). MCZM does not have complete control of the process.
 - 2) Political problems, it takes time to build consensus for regulatory change
- g) *Was the project national/state/local in importance?* National and state.
- 1) The Barrier Beach Guidelines could be a national model.
 - 2) The coastal flowage regulations, when they go into effect, could be very useful to other states with geography similar to Massachusetts.

Title: MA (2) Small Dock & Pier Environmental Impact Assessment, PSM, FY92--\$95,000

Project Description: One of the continuing questions in wetlands resource protection is the impact from small docks and piers, both direct and cumulative. The proposed investigations will be conducted at the Waquoit Bay National Estuarine Research Reserve. Specific activities proposed include: 1) Critical Depth Assessment--to determine if a critical depth exists beyond which a vessel using a pier has no significant effect on sediments, 2) Chronic Resuspension Experiment--to address the critical question of whether cumulative impacts from vessel activity cause increases in ambient suspended sediment concentrations in the water column, thereby lowering light penetration and decreasing primary productivity; 3) Piers/Shellfish bed Interactions--an assessment will be made of whether there is any causative relationship between piers and adverse impacts to shellfish resources in the vicinity of those piers and whether any data may be developed through an investigation of existing, permitted structures in identified shellfish beds.

Length of Project: 2 years (July 1, 1992 - June 30, 1994)

Project Benchmarks

FY92 and FY93

- Critical Depth Assessment
- Chronic Resuspension Experiment
- Piers/Shellfish Bed Interaction Assessment
- Literature Review
- General Overview of Small Dock and Pier Impacts

Project Completion Status

FY92 Work - Not on schedule, not likely to be completed.

FY93 Work - Not on schedule, not likely to be completed.

Project Results

- a) Program Change: Off track but still expected to be accomplished. Preparation of a generic Environmental Impact Report on the effects of small docks and piers in coastal areas. (NPC)*
- b) Summary of Results/Enhancement: N/A*
- c) Project Products to Date: N/A*
- d) Other Benefits/Spin-off: Better coordination and integration with the work of the National Estuarine Research Reserve Office*
- e) Unexpected Results: N/A*
- f) Impediments to Project Success: Short time frame. Difficulties in procuring equipment and staff resources have delayed the project.*
- g) Was the project national, state or local in importance, and why (i.e. could it be a national model or is it specific to Massachusetts)? N/A*

Title: MA (3) Title 5 Revisions to Protect Wetlands, PSM, FY92--\$68,500

Project Description: Significant impacts have been determined to coastal wetlands from on-site individual wastewater treatment systems, and from discharge from marine and recreational vehicle heads. MCZM proposes to fund a full-time staff person within the division of Water Pollution Control (DEP) to: 1) develop design specifications and criteria for boat and recreational vehicle pump-out facilities, both mobile/marine and fixed/land-based, to be incorporated into Title 5 of the state sanitary code, 2) draft regulatory language for inclusion in Title 5 to incorporate these specifications, 3) draft regulatory language for incorporation into Title 5 to establish testing, evaluation and approval of innovative residential sewage treatment methodologies, 4) establish a process for routine permitting of such technology, and 5) draft regulatory language to prohibit usage of sub-standard systems including cesspools and failing systems in the coastal region.

Length of Project: 2 years originally (July 1, 1992 - June 30, 1994)

*No-cost extension requested.

Project Benchmarks

FY92

- Staff person hired

FY93

- management of boat and recreational vehicle waste-- development of design criteria and management procedures for pump-out stations
- design criteria and management procedures incorporated into information packet and provided to communities seeking federal funds for pump-out facilities
- incorporation of provisions for the use of innovative, alternative septage treatment systems into the state sanitary code for use near coastal wetlands
- develop regulatory language supporting data which would serve to prohibit use of cesspools in locations where they would have an adverse impact on coastal wetlands
- public information meetings
- preparation and distribution of public information materials
- draft legislation that would create the legal mechanism to enable small privately-owned sewage treatment plants to be constructed in Massachusetts

Project Completion Status

- FY92 Work, FY93 Work - Not on schedule but still likely to be completed.

Project Results

- Program Change:* Accomplished. Revise aspects of the state regulations (Title 5 - Septic Code) regarding sanitary waste disposal as they affect wetlands in the coastal zone. (RR)
- Summary of Results/Enhancement:* The pump-out packet has enabled communities to apply for federal funds to install new pump-out facilities. When promulgated, the Title 5 regulations will be significantly improved over current (1978) version.
- Project Products to Date*
 - 1) Design criteria and management procedures for pump-out stations for management of boat and recreational vehicle waste

- 2) Information packet incorporating design criteria and management procedures for communities seeking federal funds for pump-out facilities
 - 3) Incorporation of provisions for the use of innovative, alternative septage treatment systems into the state sanitary code for use near coastal wetlands
 - 4) Regulatory language supporting data which serves to prohibit use of cesspools in locations where they would have an adverse impact on coastal wetlands
 - 5) Public information materials
 - 6) Draft legislation that would create the legal mechanism to enable small privately-owned sewage treatment plants to be constructed in Massachusetts
- d) *Other Benefits/ Spin-off:* Better cooperation with DEP
- e) *Unexpected Results:* none
- f) *Impediments to Project Success::* Time frame. It takes longer than 2 years to promulgate significant regulations, especially when changes are controversial & draw considerable opposition. Regulations must be promulgated by another agency; MCZM acts as an advisor, but cannot drive the process.
- g) *Was the project national, state or local in importance, and why (i.e. could this project be national model or is it specific to Massachusetts)?* Pump-out packet may be useful to other states; Title 5 regulations may be useful, but technical aspects are quite specific to Massachusetts soils and climate.

Title: MA (4) Hazard Mitigation, WF, FY92--\$100,308, FY93--\$105,845

Project Description: The goal of this project is to enhance Massachusetts' ability to prevent and mitigate the impacts of coastal storms. In the first year, MCZM will begin to accurately define coastal high hazard areas by digitizing and entering into Mass GIS the following: barrier beaches, FEMA-defined velocity zones and overwash areas, and shoreline change maps. In addition the following will be done: a recent shoreline will be added to the historic shoreline data using aerial photography; statistical analysis of the shoreline changes will be performed to define rapidly eroding areas; a recent dune and eroding coastal bank line will be developed, digitized and entered into Mass GIS using current aerial photography, and the costs to the public from one recent major coastal storm will be analyzed. In the second year, MCZM will perform five tasks: 1) develop and incorporate into Mass GIS additional historic coastal bank and dune positions and analyze for erosion rates, 2) do analysis and quality control of data developed and entered into Mass GIS in the first year; 3) prepare community maps of coastal high hazard areas and a brochure advising communities on ways to utilize this information; 4) prepare an informational article explaining costs to tax and rate payers of coastal storm damage and analyze Land Use data layer for high hazard areas to define density of structures and 5) assign estimated value of structures and estimate total potential damages within high hazard areas.

Length of Project: 2 Years (July 1, 1992 - June 30, 1994)

*No-cost extension requested.

Project Benchmarks

FY92

- all necessary service contracts issued

FY93

- FY92 data checked for quality control and analyzed to determine coastal high hazard areas in each community
- complete additional historic dune and coastal bank mapping and analyze for erosion rates
- community-specific maps showing high hazard areas produced
- information brochure developed to aid communities in use of these maps at local level
- informational article explaining the cost of coastal storms to tax and rate payers of the Commonwealth

Project Completion Status

Not On Schedule But Still Likely To Be Completed

Project Results

a) Program Change: Off Track But Still Expected to Be Accomplished by FY95.

- 1) Establish a program to require disclosure of potential coastal hazards to coastal property buyers. (AA)
- 2) Adoption of by-laws to prohibit placement of septic systems in coastal high-hazard areas. (L)

b) Summary of Results/Enhancement: Adoption of Executive Order limiting and/or prohibiting state funds and/or state - administered federal funds for activities which would encourage growth and development in identified and mapped coastal high hazard areas.

- c) *Project Products to Date:* The Commonwealth's 681 state designated barrier beaches, 96 Federal Coastal Barrier Resource Units, and FEMA-mapped Velocity and AO zones have been digitized and entered onto the MA GIS.
- d) *Other Benefits/ Spin-off:* Coastal high hazard maps will be available to local communities.
- e) *Unexpected Results:* N/A
- f) *Impediments to Project Success:* The coastal high hazard mapping project and other 309 initiatives required a great deal of time. It became necessary to hire another full time coastal geologist. The delays in receiving approval and funding to begin the project, as well as the difficulty in MCZM locating a qualified coastal geologist to assume many of the on-going commitments resulted in significant time delays in beginning the project.
Further, there have been delays in getting the updated Ma coastline overflights for the aerial photographs needed for the mapping. Unfortunately, because of these delays, the project had to proceed with other available, but less accurate aerial photographs. Because of these delays, the funds were eliminated or several curtailed. This resulted in the necessity to eliminate elements of the comprehensive project.
- g) *Was the project national/state/local in importance?* State and local.

Title: MA (5) Marine Fisheries, WF, FY92--\$20,000

Project Description: At present, the regulatory scheme related to aquaculture in Massachusetts is unclear with possible jurisdiction under the Wetlands Protection Act, Chapter 91, Marine Fisheries regulations, local harbormaster and shellfish officer regulatory programs, and the Army Corps of Engineers. MCZM will be working with these groups to attempt to clarify and streamline the regulatory process. MCZM proposes to: 1) identify the extent and type of existing and future aquaculture activities in Massachusetts coastal and ocean waters, including the siting process, scale of project and potential for conflicts with other marine uses, 2) review existing MCZM policies, other state laws, regulations and policies for impacts to aquaculture and work with regulatory agencies and interested parties to draft a state policy on aquaculture and suggest appropriate regulatory changes.

Length of Project: 1 year (July 1, 1992 - June 30, 1993)

Project Benchmarks

FY92

- "White Paper" summarizing the use of aquaculture in Massachusetts available for distribution
- analysis of the legal structure and suggestions for changes available for public review
- draft regulatory language and draft state policy on aquaculture submitted

Project Completion Status

FY92 Work - Completed

FY93 Work - Not on schedule, ongoing, still likely to be completed.

Project Results

a) *Project Change:* Off track but expected to be accomplished. Develop a comprehensive state aquaculture policy, modify the state statutory and regulatory structure to reflect this policy. (RR, SP)

b) *Summary of Results/Enhancement:* Licensing statute just amended, process for obtaining aquaculture license now more streamlined.

If the program change has been accomplished, please describe how it is an improvement over the previous system.

c) *Project Products to Date:* Draft white paper and draft aquaculture policy, undergoing state agency review.

d) *Other Benefits/Spin-off:* New licensing statute.

e) *Unexpected Results:* None

f) *Impediments to Project Success:* Short time frame, difficulty hiring staff.

g) *Was the project national, state or local in importance?* State

**Title: MA (6) Developing a Framework for an Ocean Management Program, PSM,
FY93--\$71,000**

Project Description: With the exception of the issue of oil and gas development on the outer continental shelf, enforceable policies of the Massachusetts Coastal Zone Management Program almost entirely concern themselves with land-based activities and uniformly fail to directly address any of the other very significant issues involved in the management of coastal ocean areas. In order to provide the manpower and impetus for the development of this comprehensive policy, MCZM will establish a position of Ocean Policy Coordinator whose overall task is to develop and implement MCZM Program Policies regarding activities conducted in the coastal ocean waters of the Commonwealth and those outside the territorial waters which affect land or water uses or natural resources of the Massachusetts Coastal Zone. It will be the task of the Coordinator to prepare a framework for the comprehensive policy, review existing state laws and regulations so as to include them in a new Program Policy framework, review the existing Program Policies to develop recommendations as to how they should be modified so that they might be relevant to activities in the coastal ocean areas off Massachusetts and oversee the incorporation of the framework, any new ocean management policies which might be developed, and any proposed revisions to existing program policies into the MCZMP. It is the responsibility of the Coordinator to ensure that the public, interest groups, and resource management community are given ample opportunity to help guide the development of the comprehensive policy.

Length of Project: 1 year (July 1, 1993 - June 30, 1994)

*No-cost extension requested.

Project Benchmarks

FY93

- draft ocean management policy framework developed
- workshop held to solicit input regarding the draft ocean management policy framework from the ocean management community and relevant agencies and individuals
- policy working groups will be assembled to guide the development of specific policies related to marine mining and living marine resources
- draft framework for Comprehensive Ocean Management Policy released for public comment.
- at least one public information meeting/hearing held
- draft recommendations regarding how existing MCZM Program Policies will be revised to be consistent with policy framework completed
- Program Amendment submitted to OCRM detailing the proposed policy framework and proposed revision to existing Program Policies relating to Ocean Management.
- draft policies on living marine resources and marine mining will be completed

Project Completion Status

FY92 Work - Not on schedule but still likely to be completed.

FY93 Work - Not on schedule but still likely to be completed.

Project Results

a) *Program Change:* Off track but still expected to be accomplished. New ocean management policy. (SP)

b) *Summary of Results/Enhancement:* N/A

- c) *Project Products to Date:* Draft ocean management strategy undergoing internal review.
- d) *Other Benefits/Spin-off:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Time frame too short, difficulty hiring staff.
- g) *Was the project national, state or local in importance?* State and local.

MICHIGAN

The §309 priority enhancement needs identified by Michigan cover three issues:

- Cumulative and Secondary Impact
- Wetlands
- Hazards (medium priority but §309 funds requested)

The problems identified in the §309 priority enhancement issue areas are summarized below:

Cumulative and Secondary Impacts

Cumulative impacts from permitted and unregulated small coastal developments have resulted in the loss of prime farmland, open space, wetlands, and sand dunes. These impacts are most visible in rapid growth areas such as Northwest Michigan along the Great Lakes. Water quality, wildlife habitat, biodiversity, traffic, public utilities, and community services are all affected. Local communities need broader legislative authority to guide and manage growth since, at present, communities cannot legally restrict certain developments which may cause unwanted environmental impacts or require conditions for proposed developments without expecting expensive law suits.

Despite strong regulatory authorities, permit denials based upon undefined terms such as "cumulative impacts" and "watercraft carrying capacity" are difficult to uphold in court and create inconsistencies in permit decisions. With a dramatic increase in marina permit applications, overcrowding in coastal lakes and drowned rivermouths has resulted in loss of fish and wildlife habitat, created safety hazards and other adverse cumulative impacts. Marina permit denials based on a water body's "carrying capacity" need to be upheld, as do wetland permit denials based on adverse "cumulative impacts". Michigan state authority to deny long-term leasing of public trust Great Lakes bottomlands for dockminiums is being challenged.

Wetlands

Michigan has comprehensive legislation for protection of coastal resources, including wetlands. Although it is agreed that wetland destruction is very limited, the state lacks a wetlands acreage gain/loss trend data base. Michigan needs to expand the identification of its regulatory jurisdiction. Improved enforcement of Michigan's statutes has become a major concern in recent years. Michigan needs to enhance its wetlands regulatory authority and improve enforcement, as well as look pro-actively at restoration and acquisition opportunities.

Hazards

Sections of Michigan's shoreline are subject to flooding, high risk erosion, and level rise and decline. Michigan's Sand Dunes Protection and Management Act is up for reauthorization in 1995. Efforts are needed to reassure its re-enactment. New administrative rules under the Shorelands Protection and Management Act require that erosion studies be updated at least every ten years and sets new setback distances in some high risk erosion areas with property owner notification. The public has expressed concern over the need to increase control of development in high risk areas of the Great Lakes shoreline. Land acquisition priorities in Michigan focus on recreational lands and species habitats. Adding high hazard properties to the land acquisition criteria would enhance the state's efforts to prevent loss of life and damage to property in these areas.

List of Michigan §309 Projects for FY93:

Cumulative and Secondary Impacts

MI(1) Cumulative and Secondary Impacts of Coastal Development, WF, FY93--\$109,000

Wetlands

MI(2) Coastal Wetlands, WF, FY93--\$107,000

Coastal Hazards

MI(3) Coastal Hazards Project: Sand Dunes Protection Legislation and Land Acquisition Criteria, WF, FY93--\$17,000

(Note: No §309 Projects in FY92 since Michigan did not complete its §309 Strategy in time for FY92 funding. Michigan also received no §309 funds for PSMs in FY92 or 93)

A summary evaluation of each §309 project is attached.

State Contact: Michigan Land and Water Management Division
Department of Natural Resources
Lansing, MI 48909
517-373-1950 (Phone)
517-335-3451 (Fax)
Contact: Cathie Cunningham

**Title: MI(1) Cumulative and Secondary Impacts of Coastal Development,
WF, FY93--\$109,000**

Project Description: The purpose of this project is two fold: (1) to enact new growth management legislation that will amend local zoning enabling acts to strengthen and increase the number of techniques local communities can legally use to manage and guide growth and to protect sensitive and scarce resources; and (2) to strengthen wetland and marina permitting criteria through development of interpretive statements, case law, and investigate the need for legislative amendments, as they relate to marina permitting-watercraft carrying capacity and wetland permitting-cumulative impacts of wetland development, and legality of dockominiums.

Length of Project: 3 Years (October 1, 1993- September 30, 1996)

Project Benchmarks

FY93

- 1) Growth Management Legislation
 - Northwest Michigan Council of Governments (NWMCOG)- develop GIS system contract for Fiscal Impact of Development Study
 - Peninsula Township Transfer of Development Rights (TDR) Demonstration Project
 - Growth Management Legislation - track and support legislation
 - Report on Impact of Development on Coastal Communities based on Case Studies
 - MCMP staff oversight and coordination
- 2) Marina and Wetlands Permitting
 - marina permitting criteria: contract for technical study to establish methodology for determining "watercraft carrying capacity".
 - Dept. of Attorney General (DAG) develop interpretive statements and case law through legal research and defense of Dept. decisions related to dockominiums, cumulative impacts and watercraft carrying capacity- defend denial of dockominium project on Grand Traverse Bay

FY94/95 /96

- 1) Growth Management Legislation
 - NWMCOG- distribute GIS maps, evaluate existing master plans, zoning maps, ordinances, develop model watershed master plan, adopt changes to master plans, zoning maps and ordinances, establish public/private watershed management council.
 - Peninsula Township TDR Project- purchase/TDR assistance, completion of master plan, residential development standards, public infrastructure plan, neighborhood cluster plan, revised Township zoning ordinance.
 - MCMP staff oversight and coordination- support passage of GM legislation and incorporation of growth management technique in local plans/ordinances.
 - Manistee County Model Local Land Use Management System for Oil and Gas.
 - Develop ecosystem management plan for Region II forest management and watershed management.
- 2) Marina and Wetlands Permitting
 - develop marina design standards for permitting decisions
 - DAG continue to provide legal counsel, research on interpretive statements, marina development standards, and related permit decisions

Project Completion Status

FY93

- 1) Growth Management Legislation - Completed Ahead of Schedule
- 2) Marina and Wetlands Permitting - On Schedule

Project Results

- a) *Proposed Program Change:* Not Accomplished -not scheduled until 1996. (L)
 - 1) Growth Management Legislation - expect passage in 1995, a year ahead of schedule. However, Peninsula Township Transfer of Development Rights (TDR) (LP) Demonstration Project has achieved program change results. Peninsula Township passed Tax Referendum in August 1994 which increases taxes to purchase TDRs for agricultural preservation of cherry orchards and vineyards. Michigan is the first state in the mid-west to use TDRs for agricultural preservation. The Town was on Good Morning America to debate the tax referendum. Peninsula Township also revised its Zoning Ordinance and Master Plan to address TDRs.
 - 2) Improved Marina and Wetlands Permitting Criteria- scheduled for adoption in 1996. (PG)
- b) *Summary of Results/Enrichment:* Project not completed yet, but see above.
- c) *Project Products*
 - 1) Proposed Growth Management Legislation
 - 2) Peninsula Township Tax Referendum Initiative on TDRs (8/94) and Revised Zoning Ordinance and Master Plan
 - 3) Draft Report on Recreational Watercraft Carrying Capacity
- d) *Other Benefits:* No
- e) *Unexpected Results:* Growth Management Legislation moving faster than expected. Other reports produced by other studies (EPA Relative Risk Assessment, American Foundation Sponsored Symposium, and Governor's Land Use Task Force Report) all supported the findings and recommendations of the Michigan §309 Assessment and Strategy regarding the need for growth management.
- f) *Impediments to Project Success:* No
- g) *Is Project of National/State/Local Importance:* All three.

Note: Expect to revise FY94/95 work program for Growth Management Legislation portion of this project to focus on public education and support of legislation which is on a fast track.

Title: MI(2) Coastal Wetlands, WF, FY93--\$107,000

Project Description: The purpose of this project is to improve coastal wetlands protection by enhancing regulatory authority and improving enforcement of existing statutes. This project involves four components: (1) development of statewide operational guidance for considering cumulative impacts to wetlands in permit reviews; (2) new legislation to allow DNR to issue administrative fines for violations of wetland protection statutes and added fees to support permit application review costs; (3) new legislation to improve regulatory authority over mechanical harvesting of aquatic plants and aquatic herbicide use; and (4) DNR adoption of methodology for developing a wetlands inventory for the state.

Length of Project: 2 Years (October 1, 1994- September 30, 1996 for (1) (2) & (4))
3 Years (October 1, 1994- September 30, 1997 for (3))

Project Benchmarks

FY93

- 1) Statewide Guidance - assessment of existing techniques to address cumulative impacts in wetlands
- 2) New Adm. Fines Legislation - track legislation
- 3) New Aquatic Herbicide Legislation - draft revised aquatic herbicide legislation, hold public meetings regarding revised regulations
- 4) Wetlands Inventory Methodology - digitized wetlands inventory pilot project and evaluated methodology.

FY94

- 1) Statewide Guidance - development of operational guidance for incorporation in the Land and Water Mgt. Div. Operations Manual
- 2) New Adm. Fines Legislation - track/passage (Deleted/See Project Results below)
- 3) Contract to evaluate aquatic harvesting in Michigan wetlands and machine damage.
- 4) Wetlands Inventory Methodology - adopt method for developing statewide wetlands inventory.

Project Completion Status

FY93 Work

FY93 (1) Statewide Guidance - On Schedule

FY93 (2) New Adm. Fines Legislation -Deleted. See Project Results Below

FY93 (3) New Aquatic Herbicide Legislation - On Schedule

FY93 (4) Wetlands Inventory Methodology- Delayed, may need no cost extension due to delays in contracting process and contract review at state level.

Project Results

a) Proposed Program Change: Not Accomplished—no program changes scheduled until FY95/96. Regarding FY93 (2) New Administrative Fines Legislation, the 1994 Legislature passed new administrative fines for several coastal statutes but not for Michigan's Wetlands Statutes. During the legislative process it was found that the state wetlands program already had authority to assess a \$25 fee for a wetlands permit application. For both the above reasons, this project will no longer be pursued.

- 1) Statewide Guidance (PG)
- 2) Aquatic Herbicide Legislation (L)

- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products:* None due until 9/94
- d) *Other Benefits:* No
- e) *Unexpected Results:* Yes for FY93 (2) New Administrative Fines Legislation (see Project Results above)
- f) *Impediments to Project Success*
FY93 (2) New Adm. Fines Legislation - See Project Results above
FY93 (4) Wetlands Inventory Methodology - contract process and review delays
- g) *Is Project of National/State/Local Importance:* State

Title: MI(3) Coastal Hazards Project: Sand Dunes Protection Legislation and Land Acquisition Criteria, WF, FY93--\$17,000

Project Description: The purpose of this project is to improve hazard area management. This project involves three components: (1) re-authorization of the Sand Dunes Protection and Management Act; (2) adding high risk erosion and flood hazard areas to the Natural Resources Commission's criteria for prioritizing land acquisition; and (3) legislation to allow DNR to record disclosure statement on deeds for high hazard shoreline properties.

Length of Project: 2 Years (October 1, 1993- September 30, 1995)

Project Benchmarks

FY93

- 1) Sand Dunes Legislation
 - consultant to perform economic analysis of alternative construction methods required by Sand Dunes Program (to be deleted and funds reprogrammed, since Reauthorization Legislation passed)
- 2) Erosion/Flood Acquisition Criteria
 - statement for Natural Resources Commission to add high hazard coastal properties to list of criteria for state land acquisition
 - Formal adoption of new criteria for state acquisition of land offered for sale.
- 3) Hazards Disclosure Legislation
 - no activities in FY93

FY94

- 1) Sand Dunes Legislation
 - DNR staff update Critical Dunes Atlas and Implement Legislative Reauthorization
- 2) Erosion/Flood Acquisition Criteria
 - MOA with Real Estate Division (RED) ensuring that if hazard properties return to state ownership through tax reversion or other means, they remain in state ownership
- 3) Hazards Disclosure Legislation
 - redraft legislation, secure legislative sponsor, track legislation

Project Completion Status

FY93 Work - Completed or On Schedule

Project Results

a) Proposed Program Change

- 1) Sand Dunes Legislation - Accomplished. Legislation reauthorized with elimination of 5-year sunset provision (L)
- 2) (a) Erosion/Flood Acquisition Criteria- Expect to Accomplish by end of September 1994 (PG)
(b) MOA with RED- Not Accomplished/ not schedule for completion until FY95 (MOU)
- 3) Hazards Disclosure Legislation- Not Accomplished/not scheduled for completion until FY95 (L)

b) Summary of Results/Enhancement

- 1) **Sand Dunes Legislation.** The reauthorized Sand Dunes Protection and Management Act regulates development in designated sand dune areas through site analysis and slope requirements.
- 2) (a) **Erosion/Flood Acquisition Criteria.** When coastal properties become available for purchase by the Department , erosion and flood prone coastal properties will be given a high ranking for state acquisition, using this new criteria and policy directive.

c) Project Products

- 1) **Sand Dunes Protection and Management Act Reauthorization of 1994**
- 2) **Draft Acquisition Criteria**

d) Other Benefits: No

e) Unexpected Results: No

f) Impediments to Project Success: No

g) Is Project of National/State/Local Importance: State and Local

MISSISSIPPI

The §309 Priority Enhancement Needs identified by Mississippi cover four issues:

- Wetlands
- Coastal Hazards
- Cumulative and Secondary Impacts
- Special Area Management Planning

The problems identified in the Mississippi §309 priority enhancement issues areas are summarized as follows:

Wetlands

Without clear authority, it is difficult to effectively and consistently manage state coastal wetlands resources. As noted in the §309 Assessment, it is unclear how many acres of wetlands have been lost to ports, navigation channels, dredge material disposal, roads or industrial development, or have been degraded from indirect impacts such as sedimentation from construction, altered natural hydrology, urban stormwater runoff, and related water quality problems.

Because there is no clear authority regulating indirect impacts to wetlands, and because regulation is not comprehensive, no one really knows the effects of these impacts on the water quality. The lack of consistency in decision-making is a problem. Without clear jurisdiction, guidelines or rules, decisions are made on a case-by-case basis. Better decision-making for wetlands protection is greatly needed.

Coastal Hazards

Mississippi's coastal program does not have a comprehensive goal or policy to deal with coastal hazards. Enforceable management policies are needed to minimize the loss of life and property from development in high-hazard areas. There is a concern that coastal redevelopment does not always meet consistent minimum standards for hurricane and storm protection. While the Federal Emergency Management Agency (FEMA) standards are adequate for new construction, there is no consistent program to address reconstruction of existing development damaged by storms and floods.

Cumulative and Secondary Impacts

Dockside gaming and related development have and will continue to displace a number of existing and potential marina sites. The growing population of residents and visitors is creating new slip demand for both pleasure craft and commercial vessels. BMR will thus see an increase in the number of requests to build new marina slips. New or expanded marinas, if not properly planned and constructed, could have adverse effects on shoreline access, wetlands and water quality. Runoff from marinas adversely affects wetlands, shellfish beds and nearshore water quality. The state's marina development policies need to be reviewed and revised to ensure proper marina siting and design and to encourage efficient use of existing marinas. Guidelines for construction are needed to allow the State to develop consistent, enforceable policies on marina design and construction.

Existing State and local requirements and enforcement capacity is insufficient to stop inadequate septic tank sewage treatment from degrading water quality in several coastal areas. Septic tank problems such as improper siting, construction and maintenance must be identified, and enforceable policies must be developed.

Special Area Management Planning

Development pressures precipitated by the legalization of dockside casino gaming is causing tremendous strain on the man-made and natural environments in Harrison County. Three dockside casinos are now open in Biloxi, and twelve more are scheduled to open within the year. State and local regulatory and public service agencies are having a difficult time in coping with the onslaught of impacts. Direct and indirect impacts include the loss of public access, displacement of traditional water-dependent industries, and development pressure from related secondary developments such as housing, hotels, restaurants, marinas, and other public supportive services. Public improvements to infrastructure is required to support the anticipated level of growth. All of these secondary activities will add to the cumulative impacts on coastal wetlands, marine resources and nearshore waters.

List of Mississippi §309 Projects for FY 1992 and FY 1993

Cumulative and Secondary Impacts

MS (1) "Modification of State Septic Tank Requirements" PSM, FY93--\$90,000

A summary evaluation of each §309 project is attached.

**State Contact: Mississippi Coastal Management Division
Bureau of Marine Resources
Department of Wildlife Conservation
Biloxi, MS**

**Contact: Jerry Mitchell
601-385-5880 (Phone)
601-385-5864 (Fax)**

**Title: MS (1) "Modification of State Septic Tank Requirements" PSM, FY93--
\$90,000**

Project Description: The purpose of this project is to focus septic tank management/enforcement capabilities on critical pollution areas in the coastal zone. The program change will consist of proposed enhanced and expanded development guidelines for wetlands-regulated activities to address impacts from effluent discharges into coastal wetlands and waters. A cooperative MOU for incorporating coastal water quality and resource management considerations into existing permitting and monitoring activities for septic systems will be approved by State and local regulatory management agencies. The proposed change consists of a scientifically valid framework for assessing and minimizing cumulative impacts of permissible activities in the Mississippi coastal area.

Length of Project: 1 year (October 1, 1993 to December 31, 1994)
* 3 month no cost extension

Project Benchmarks

FY93

- Identify septic tank problems -- location/soils, design/construction, seepage, maintenance, enforcement
- Develop new measures and requirements for improved management
- Enter into a MOU with the State Health Department to revise and utilize guidance.
- Develop and implement education program for local officials and contractors

Project Completion Status

FY93 Work

Not on schedule, but still likely to be completed.

Project Results

- a) Proposed Program Change:* Not on schedule but still likely to be completed. Develop an MOU between the State Department of Health and the Bureau of Marine Resources to revise septic tank and health regulations. (MOU)
- b) Summary of Results/Enhancement:* Improvement to nearshore water quality
- c) Project Products To Date:* Preliminary report on location of septic systems soils, etc.
- d) Other Benefits:* None
- e) Unexpected Results:* None
- f) Impediments to Project Success:* Lack of adequate Health Department staff in upland counties to complete field inspections.
- g) Is the Project of National/State/Local Importance?* National, state and local

NEW HAMPSHIRE

The §309 priority enhancement needs identified by New Hampshire covers two issues:

- Wetlands
- Cumulative and Secondary Impacts

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Wetlands

Given the limited number of tidal wetlands in the New Hampshire seacoast, each system must be considered a valuable social, economic, and ecological resource. Although dredging and filling of existing tidal wetlands is strictly regulated through state and local laws, many systems are undergoing changes due to past impacts such as mosquito ditching, and construction of barriers such as roads, tide gates and tide dams. In some of these systems, the secondary and cumulative impacts from past development are becoming increasingly apparent. Restricted tidal flows, invasion of non-native plant species, and increased freshwater inflows are contributing to the slow degradation of many tidal marsh systems in New Hampshire. Although several studies have been done on the degraded systems, due to financial limitations and legal/policy questions, very little actual restoration work has gone forward. Given projected population increases and the resultant development within the watersheds of tidal wetlands, the situation could very well worsen.

Cumulative and Secondary Impacts

Although there are many existing studies and programs which focus on pollution threats and other impacts of development, there has been no comprehensive work done from the overall perspective of cumulative and secondary impacts. Past impacts to salt marshes, dunes and coastal waters are quite evident, however current impacts are more complex and subtle, and not as easily characterized. Since most land use planning takes place at the local level, development can take place in a piecemeal fashion without consideration of the cumulative and secondary impacts to natural resources. Specific cumulative and secondary impacts which affect (or have the potential to affect) the New Hampshire coastal area include point sources of pollution such as municipal sewage plant discharges, nonpoint source pollution (agricultural and road runoff), sediment pollution, leakage from underground storage tanks and septic systems, and incremental filling of wetlands.

List of New Hampshire §309 Projects for FY92 and FY 93

Wetlands

NH (1) Method for the Evaluation and Inventory of Vegetated Tidal Marshes in New Hampshire (Coastal Method), PSM, FY92--\$40,000

NH (2) Wetland Mitigation Issues and Regulations Analysis, WF, FY92--\$30,000

Cumulative and Secondary Impacts

NH (3) Cumulative and Secondary Impacts Analysis and Recommendation for Local Shoreland Protection Ordinances in the Seventeen Coastal Communities, WF, FY93 --\$21,447

NH (4) Assessment of Cumulative and Secondary Impacts, WF, FY93--\$35,000
continues in FY94

A summary evaluation of each §309 project is attached.

State Contact: Christine Rowinski
N.H. Coastal Program
N.H. Office of State Planning
2 1/2 Beacon Street
Concord, NH 03301-2361
603-271-2155 (Phone)
603-271-1728 (Fax)

Title: NH (1) Method for the Evaluation and Inventory of Vegetated Tidal Marshes in New Hampshire (Coastal Method), PSM, FY92--\$40,000

Project Description: The Coastal Method provides coastal communities with a site-specific method for inventorying and evaluating their vegetated tidal marshes for a number of different functions. The Coastal Method also provides communities with site-specific information and management options for tidal marshes that may be used in future land-use planning decisions. The Coastal Method is not for definitive site evaluations, but is intended as a tool for planning, educating, and inventorying.

Length of Project: 1 year (July 1, 1992-June 30, 1993)

Project Benchmarks

FY92

- convening of steering committee
- literature review
- preliminary field work in preparation for draft Coastal Method Manual
- draft revisions
- field testing of final draft
- production of final Coastal Method Manual

Project Completion Status

FY92 Work-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished--Method was not adopted by the Governor's Council on Resource and Development (PG)
- b) *Summary of Results/Enhancement:* The Coastal Method has been developed and incorporated into New Hampshire's Coastal Program. The New Hampshire Office of State Planning (OSP) is providing money (not §309 funds) to train communities on the Coastal Method to help them through the prime wetlands designation process, a process in which wetlands of priority to be protected are identified.

Municipalities use criteria established by the Wetlands Board (WB) to inventory, evaluate, and map their wetlands; select those wetlands worthy of the prime wetland designation; and then submit their designation proposal to the WB for approval. Once approved by WB, prime wetlands receive additional level of protection

The Coastal Method manual is basically a planning tool.

- c) *Project Products to Date:* Coastal Method Manual for inventorying and evaluating vegetated tidal marshes—a planning tool to evaluate different functions that wetlands perform and provide guidance for prioritizing. It is *not* a scientific method to be used for evaluating wetland functions for wetlands mitigation purposes.
- d) *Other Benefits:* The steering committee created good discussion about how difficult it is to understand the different functions of wetlands. The Coastal Method will educate the communities who use it about how impacted wetlands really are, many are impacted by roads or other interference and no longer functions as one entity.
- e) *Unexpected Results:* None

f) *Impediments to Project Success:* None

g) *Was the project national/state/local in importance?* State and Local

This manual met the need for developing a method to evaluate NH's tidal wetlands for conservation planning purposes. The manual takes a local approach to protecting wetlands since it is designed to be used by local conservation commissions and the public.

**Title: NH (2) Wetland Mitigation Issues and Regulations Analysis, WF, FY92--
\$30,030**

Project Description: This report examines the policy, technical, and institutional issues surrounding wetlands mitigation. Discussions under the various sections of this report are based on a review of relevant scientific literature, the observations/experiences of New Hampshire Wetlands Bureau Coastal staff, and the analysis of existing New Hampshire wetlands legislation, rules and procedures. Examples of regulatory approaches taken by other states with respect to certain mitigation issues are also included.

Length of Project: 1 year (July 1, 1992 - June 30, 1993)

Project Benchmarks

FY92

- background research
- summary of background research and regulatory analysis
- draft mitigation Regulations

Project Completion Status

FY92 Work - A report which included recommendations was completed. To date, draft mitigation regulations not developed by our office due to Wetlands Board's need to reevaluate existing mitigation practices/standards, and the need to determine the ecological status of mitigated sites. The WB is currently initiating such actions and the 309 Program's Mitigation report recommended that such actions be undertaken by the WB. The WB Administrator has endorsed the report and it is being used by Wetlands Bureau staff in their efforts to draft proposed mitigation regulations.

Project Results

- a) *Proposed Program Change:* Off track but still expected to be accomplished in the next couple of years--The project was intended to involve the development of standards to be incorporated into the Wetlands Board administrative regulations (taken from pg. 21 of NH strategy). A report was completed but regulations were not drafted. The Wetlands Board is very interested in developing wetland mitigation rules and the report produced from this project has played a role in the Board's efforts. At this point, the Board needs scientific criteria and long-term analysis of existing mitigation projects before it can develop the regulations. The Board will probably come up with revised rules in the next couple of years. (NPC)
- b) *Summary of Results/Enhancement:* The Wetlands Board accepted the report. The Board has yet to develop mitigation regulation, they need to go out into the field and look at actual mitigation sites and see what actually happened with them. This type of on-site research was recommended in the OSP report.
- c) *Project Products to Date*
 - 1) Wetland Mitigation Issues and Regulations Analysis Report given to each member of the Wetlands Board, as well as to the NH DOT, other state agencies and the public.
- d) *Other Benefits:* This project revealed certain weaknesses in communication between the §309 Program and Wetland Bureau staff. The benefit of this project is that it opened up dialogue between OSP and the Wetlands Bureau. Another benefit is the

educational aspect--before this project there was no one source which covered how mitigation is handled in New Hampshire.

- e) *Unexpected Results:* Project brought to light the need to better inform the Wetlands Bureau staff about the §309 Program. This need was addressed and good communication and cooperation now exist.
- f) *Impediments to Project Success:* The limited communication between the §309 Program and the Wetlands Bureau led to initial misunderstanding concerning the objectives of the Project.
- g) *Was the project national/state/local in importance and why? State.* The issue of mitigation is an important one for the state. The NH DOT is proposing developing a Mitigation Banking Program, yet the issue of how successful approved mitigation projects have been, or how future mitigation projects can be improved have not been addressed.

Title: NH (3) Analysis and Recommendation for Local Shoreland Protection Ordinances in the Seventeen Coastal Communities, WF, FY93--\$21,447

Project Description: The 1991 Comprehensive Shoreland Protection Act (CSPA) requires OSP to develop and provide the Department of Environmental Services (DES) with a draft model shoreland protection ordinance for use by municipalities. Municipalities may adopt the model ordinance or a more stringent version of such a model. In this project, OSP will undertake a study of local shoreland protection ordinances in the seventeen coastal communities and provide the Department of Environmental Services (DES) with a report on the status of such ordinances and their consistency with the model shoreland ordinance. There is some concern that the Comprehensive Shoreland Protection Act (CSPA), as it currently stands, addresses predominantly freshwater environments. Information gathered from this study will be used to determine if revisions to the model ordinance and/or the CSPA itself should be made to better differentiate between fresh and saltwater environments.

Length of Project: 6 months (January 1, 1994 to June 30, 1994)

Project Benchmarks

FY93

- local ordinance analysis
- summary report with conclusions (reviews town ordinances and compares them to minimum standards)

Project Completion Status

FY93 Work - Completed

Project Results

- a) Proposed Program Change:* The report documents the current status of coastal community shoreland protection ordinances and their consistency with the CSPA minimum standards (and therefore with the model ordinance). (NPC)
- b) Summary of Results/Enhancement:* OSP did not find anything in the review that would warrant revisions to the model ordinance or to the Comprehensive Shoreland Protection Act (CSPA) itself. OSP also did not see any need for changes to be made in the CSPA to better differentiate between fresh and saltwater environments. The report shows that currently none of the 17 coastal communities meet all of the minimum standards of the Act.
- c) Project Products to Date*
 - 1) Report which reviews 17 coastal town ordinances and compares them to CSPA minimum standards.
- d) Other Benefits:* During this legislative session (1994) an amendment was added to the CSPA at the last minute which requires OSP to certify to the commissioner of the Dept. of Environmental Services that the provisions of a local ordinance are at least as stringent as similar provisions of the act. This report has already done an analysis of the status of shoreland ordinances in the 17 coastal communities and therefore, provides much of the information needed to determine the "stringency" of current coastal shoreland ordinances.

- e) *Unexpected Results:* While the project was being worked on, there were many changes and amendments made to the CSPA. This situation made analysis of existing ordinances more difficult since the CSPA minimum standards were in a state of flux.
- f) *Impediments to Project Success:* It was difficult to proceed with the project because the CSPA was being revised and amended at the same time as OSP was working on the project. The model ordinance also went through several revisions during the time period that the report was being written. During the whole project OSP was not sure what the Act would look like and the whole act did not go into effect until this year. There was a lot of confusion about the law and unanswered questions. OSP really had no idea where the law was going to go.
- g) *Was the Project National/State/Local in Importance and Why?* State and Local
The law is a state requirement, but it relies on local zoning.

Title: NH (4) Assessment of Cumulative and Secondary Impacts; WF, FY93--
\$35,000

Project Description: This project is currently in a state of flux. since project benchmarks will be based on the §309 strategy revision that OSP is currently undertaking. I can say that Phase 1 of this project basically involves conducting background research on CSI's.

Length of Project: Abandoned

Project Benchmarks

FY93

Contingent on strategy revision

Project Completion Status: Project Abandoned

Project Results

- a) *Proposed Program Change:* Abandoned
- b) *Summary of Results/Enhancement:* None
- c) *Project Products to Date:* None
- d) *Other Benefits:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Not enough time to complete projects. Timetable too restrictive, recommend program changes too broad. No direction.

NEW JERSEY

The §309 priority enhancement needs identified by New Jersey cover two issues:

- Cumulative and Secondary Impacts
- Coastal Hazards

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Cumulative and Secondary Impacts

New Jersey's coastal management system does not allow the state to apply its coastal policies to a sufficient percentage of proposed development within the coastal boundary. The existing coastal management program does not apply to development not regulated under the existing state coastal permit process, thus, has minimum impacts on the overall development pattern of New Jersey's coastal area. Development below the Coastal Area Facility Review Act (CAFRA) threshold, including small residential development, commercial developments, roads of less than 1,200 linear feet and sewerage lines of less than 1,200 linear feet are not subject to the resource protection plan under the New Jersey Coastal Management Program, unless proposed within coastal wetlands or water areas. In addition there are no state legal provisions requiring the coastal management program to be incorporated in municipal master plans and zoning ordinances in order to effectively manage cumulative impacts. In New Jersey, coastal decisions, especially permit decisions, are presently made on a case by case basis with minor consideration for cumulative and secondary impacts.

Coastal Hazards

New Jersey's coastal zone is at on-going risk from coastal hazards including episodic and chronic erosion, inlet channel migration, bar formation, cyclic erosion/accretion trends and other effects of storms such as wind damage and flooding from storm surges produced from hurricanes and northeast storms. These risks are exacerbated by the density of development produced by the easy access and popularity of the New Jersey shore as a recreational and tourism destination for almost two centuries. In 1981, the state adopted a Shore Protection Master Plan (SPMP) to provide a cohesive and comprehensive approach to the problems of shore protection for use by the state and local governments. The first of its kind in the nation, the SPMP was a shore protection approach that relied principally upon engineering solutions, with limited reliance on natural processes. While viewed as a success in guiding the state in the spending of \$60 million for engineering projects, it is now time to evaluate the lessons drawn from the implementation of projects funded under the SPMP and subsequent programs.

List of New Jersey §309 Projects for FY92 and FY 93

Cumulative and Secondary Impacts

- NJ (1) Characterization Study/Program Assessment, WF, FY92--\$94,500, FY93--\$45,710
- NJ (2) Advisory Groups, WF, FY92--\$21,000, FY93--\$9,142
- NJ (3) Cumulative and Secondary Impacts Education/Outreach Activities, WF, FY93--\$9,142

Coastal Hazards

- NJ (4) Public Participation and Education, WF, FY92--\$84,000, FY93--\$100,000
- NJ (5) Shore Protection Master Plan Revisions, FY93--\$64,006

A summary evaluation of each §309 project is attached.

State Contact: NJ Department of Environmental Protection and Energy,
Office of Regulatory Policy
CN029
Trenton NJ 08625-0029
609-292-1875 (Phone)
609-984-2147 (Fax)

Contacts: Dorina Frizzerra (Cumulative Impacts), 609-777-3251
Steven Whitney (Coastal Hazards), 609-292-1875

Title: NJ (1) Characterization Study/Program Assessment, WF, FY92--\$94,500, FY93--\$45,710

Project Description: The Department of Environmental Protection and Energy (DEPE) will develop a Cumulative Impacts Characterization Study (CICS) which will characterize and quantify the cumulative and secondary impacts in New Jersey's coastal zone brought about from development that has occurred before and during implementation of the coastal management program. This study will review the cumulative effects of air and water pollution loadings, visual and physical water access, habitat loss and diversity reduction, and a more amorphous quality, the character of the Jersey shore that presently meets the recreational demands for the New York-Philadelphia-New Jersey metropolitan area. The CICS will also examine the current practice of cumulative impacts in New Jersey's coastal zone including regulatory and planning programs at all levels of government and other ongoing Departmental efforts in nonpoint source pollution control and land use planning. Also included will be actively involving coordination between state and local agencies responsible for land use, water quality and habitat protection. The CICS will provide the basis and background for the Department to move forward with drafting coastal zone management rule amendments and provide recommendations to the legislature.

Length of Project: 2 years (October 1, 1992 - September 30, 1994)
1 year no cost grant extension through September 30, 1995

Project Benchmarks

FY92 (revised)

- Identifying of critical coastal resources of concern
- Identifying data layers to look at

FY93

- Converting trend information into data layers
- Begin analysis

Project Completion Status

FY92 Work - Completed (in FY93)

FY93 Work - Not on schedule but still likely to be completed by September 30, 1995

Project Results

a) *Proposed Program Change:* Off track but still expected to be accomplished by September 30, 1995--Note: This program change is not specifically for NJ (1), it will be the combined result of NJ (1), (2) and (3)) NJ has an established Coastal Zone Management Program with specific permitting rules. The intent of the entire Cumulative and Secondary Impacts project (NJ 1,2 and 3) is to look at a way to start using secondary and cumulative impacts in reviewing the permits that are issued in the coastal facility review area and make recommendations. Currently there is a threshold level, only proposals with more than 24 units are reviewed by the state. Proposals which fall under the threshold are reviewed locally. The intention of the project was to make recommendations concerning when the state would review proposals so that the state's Coastal Area Facility Review Act (CAFRA) could be amended. But before the project had been completed the legislature already met and made changes to CAFRA eliminating the threshold and providing for state review of every project. So the DEPE has altered the project and will still make recommendations, such as whether the change is enough, whether it is too late or whether it is too strict, depending on the results of the project. (NPC)

- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products to Date:*
 - 1) Land Use cover/Integrated Terrain Unit Map of coastal area
 - 2) Land cover information on dunes and shoreline erosion
 - 3) All data layers needed for project
 - 4) Information regarding environmental stressors and permitted activities
 - 5) Water and air quality trends
- d) *Other Benefits:* This information can be used for determining policy refinement and regulatory changes that are not specifically part of this project.
- e) *Unexpected Results:* Not yet.
- f) *Impediments to Project Success*
 - 1) Lack of staff
 - 2) Lack of up to date technical information
 - 3) Lack of hardware (computers)
- g) *Was the project national/state/local in importance?* National, because it will give a basis for actually calculating cumulative effects of development on resources. The DEPE hopes to identify a way to incorporate impact into the permit review process (for instance, not only would impacts of an activity be monitored during the activity, but also five years later).

Title: NJ (2) Advisory Groups, WF, FY92--\$21,000, FY93--\$9,142

Project Description: Technical advisory committees representing citizen, scientific, and public interests will advise, review and guide the Cumulative Impacts Characterization Study (CICS) (NJ (1)). In this way the study will be developed through a consensus building process.

Length of Project: 2 years (October 1, 1992 - September 30, 1994)
1 year no-cost grant extension through September 30, 1995

Project Benchmarks

FY92

- Decision on the composition of both the internal and External Advisory Committees (DEPE used existing advisory groups)
- Meeting of Internal Advisory Committee
- First organizational meeting of the External Advisory Committee

FY93

- Internal and External Advisory Groups will meet on a regular basis, from bimonthly to quarterly basis throughout year

Project Completion Status

FY92 Work - Completed

FY93 Work - On schedule

Project Results

- a) *Proposed Program Change:* On Track and Expected To Be Accomplished by September 30, 1995-- Part of entire cumulative and secondary impacts project, see NJ (1), Characterization Study/Program Assessment, for proposed program change.
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products to Date*
 - 1) Internal and External Advisory committees (used existing advisory groups, such as the Land Use Advisory Committee, Watershed Regional Advisory Committee, etc.)
 - 2) Meeting agendas and related correspondence
- d) *Other Benefits:* None.
- e) *Unexpected Results:*
 - 1) The new CAFRA (a function of the legislature's actions, not of the project directly)--it has not stopped the project but it may color the way the department looks at the data.
 - 2) The interviewee did not set up this project. She found the advisory groups to actually be hindrance rather than a help.
- f) *Impediments to Project Success:* 1) The data had to be structured in a way that the advisory groups could comment on resources they thought were of critical concern, on data layers they would like to see, but there was no flexibility to meet the advisory groups' demands if information they wanted was not available. The department has no resources for new data collection.
- g) *Was the project national/state/local in importance?* State.

Title: NJ (3) Cumulative and Secondary Impacts Education/Outreach Activities, WF, FY93--\$9,142

Project Description: The Department will prepare educational documents that provide information and guidance about cumulative and secondary impacts of coastal growth and conduct workshops to assist in the understanding and adoption of future enforceable policies at all levels of government. This will include development of fact sheets which may be used in DEPE newsletters and other regional coastal newspapers. At the state, level these enforceable policies will include consideration of amendments to coastal regulations and cooperation with the legislature in efforts related to amending the Coastal Area Facility Review Act to close the development loophole which allows a significant amount of development to escape review under New Jersey's Coastal Management Program.

Length of Project: 1 year (October 1, 1993 - September 30, 1994)
1 year no-cost grant extension through September 30, 1995

Project Benchmarks

FY93

- Developed and distributed 1 fact sheet on cumulative and secondary impacts of development affecting critical natural resources in the coastal area
- Articles in DEPE newsletter and other regional newsletters and newspapers

Project Completion Status

FY93 Work - Not on schedule but still likely to be completed.

Project Results

- a) *Proposed Program Change:* Off Track But Still Expected to Be Accomplished by September 30, 1995-- Part of entire cumulative and secondary impacts project, see NJ (1), Characterization Study/Program Assessment, for proposed program change.
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products to Date:*
 - 1) Fact Sheet on cumulative and secondary impacts of development affecting critical natural resources in the coastal area
 - 2) Articles in DEPE newsletter and other regional newsletters and newspapers
- d) *Other Benefits:* None.
- e) *Unexpected Results:* None.
- f) *Impediments to Project Success:* None.
- g) *Was the project national/state/local in importance?* Local.

Title: NJ (4) Coastal Hazards Public Participation and Education, WF, FY92--\$84,000, FY93--\$100,000

Project Description: This project is being done in conjunction with NJ (5)--Shore Protection Master Plan Revisions. For this part, New Jersey will prepare short reports, fact sheets and articles on the physical characterization of the New Jersey shoreline. Educational materials will also include analyses of the shore protection projects undertaken in New Jersey, their degree of success, and the lessons learned from them. Suggestions for effective actions shorefront property owners and shorefront municipalities and counties can take to reduce the threat of shore erosion and property damage will also be included. In addition to the educational materials, various public workshops to discuss coastal geology, coastal engineering, economics, and local priorities, concerns and needs will be convened. Information gathered from these workshops will form the basis for the scientific and technical development to the needs assessment study and revisions to the Shore Protection Master Plan (NJ (5)).

Length of Project: 2 years (October 1, 1992 - September 30, 1994)
1 year no cost grant extension through September 30, 1995

Project Benchmarks

FY93

- Develop education materials on coastal processes in New Jersey (informational series of articles, fact sheets and slide show presentations for public workshops)
- Convene public workshops to provide input in the development of the Integrated Shore-Land Protection Program
- Articles in DEPE newsletter
- Press releases to area newspapers

Project Completion Status

FY93 Work - Not on schedule but still likely to be completed.

Project Results

- a) *Proposed Program Change:* Off track but still expected to be accomplished by September 30, 1995. Note: NJ (4) is part of an entire Coastal Hazards project that encompasses NJ (4) and (5), the following proposed program change is for both projects. New Jersey's Shore Protection Management Plan is fourteen years old and focused mainly on engineering solutions. Since it was produced there have been technological changes, policy changes and public perception changes. New Jersey has experienced an increase in its urban year round resident coastal population. New Jersey needs to look at its existing coastal hazards master plan to see whether the recommendations still provide the level of safety desired to coastal population and coastal resources. The department believes change is necessary. They want more public input this time and to really assess the economic benefits of some of the current shore protection master plan techniques. Using the recommendation of this project the DEPE plans to develop a Revised Shore Protection Master Plan. (NPC)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products to Date:*
 - 1) Education material
 - 2) Six workshops held and a few more expected
 - 3) Monthly steering committee meetings
 - 4) Articles in DEPE newsletter
 - 5) Press releases to area newspapers

- d) *Other Benefits:* Public is now involved in process--benefit from open public process.
- e) *Unexpected Results:* None yet.
- f) *Impediments to Project Success:* 1) Inability to process the contract (with Rutgers University) through the state.
- g) *Was the project national/state/local in importance?* State/local.

Title: NJ (5) Shore Protection Master Plan Revisions, FY93--\$64,006

Project Description: This project is being done in conjunction with NJ (4)--Coastal Hazards Public Participation and Education. The DEPE is proceeding to revise the New Jersey Shore Protection Master Plan, a strategy developed in 1981 to guide state spending for shore protection projects. An essential component of the revision process is the convening of public workshops to begin to discuss the issues and provide direction in the development of a new shore protection master plan. The project uses a consensus building strategy. The strategy involves interested members of the public, interest groups, government agencies and the academic community to facilitate a consensus about what needs to be accomplished and provide direction in the development of the integrated program. The DEPE will prepare documents for public review and comment and incorporate a consensus into the final document. Based on the revisions, the DEPE will prepare a legislative acquisition, disclosure and regulatory package which will be used to brief legislators and as a basis for proposing amendments to New Jersey's Coastal Program.

Length of Project: 1 year (October 1, 1993 - September 30, 1994)

1 year no-cost grant extension through September 30, 1995

Project Benchmarks

FY94 (revised)

- Develop educational materials on coastal process in New Jersey (information series of articles, fact sheets and slide show presentations for public workshops)
- Complete final revisions to the Shore Protection Master Plan
- Convene public meetings to present final document
- Provide legislators with information for Shore Protection legislation
- Draft legislation based upon final Shore Protection Master Plan
- Prepare plan for acquiring coastal high hazard property based upon final Shore Protection Master Plan

Project Completion Status

FY94 Work - Not on schedule but still likely to be completed.

Project Results

- a) *Proposed Program Change:* Off Track But Still Expected to Be Accomplished by September 30, 1995. Project is part of entire Coastal Hazards project, see proposed program change for NJ (4).
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products to Date*
 - 1) educational materials on coastal process in New Jersey (information series of articles, fact sheets and slide show presentations for public workshops)
- d) *Other Benefits:* None.
- e) *Unexpected Results:* They got sidetracked by the fact that the state's Coastal Area Facility Review Act got revised. While unexpected, it didn't impede the project, it instituted some additional regulatory power in an area that they intended to look at.
- f) *Impediments to Project Success:* 1) Inability to issue contracts to collect information - dealing with bureaucracy

- g) *Was the project national/state/local in importance?* National, because it will set policy for the way New Jersey deals with coastal hazards and deals with development in hazard areas and could provide a model for other states.

NEW YORK

The §309 priority enhancement needs identified by New York cover four issues:

- Wetlands
- Public Access
- Cumulative and Secondary Impacts
- Coastal Hazards

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Wetlands

Tidal and freshwater wetland systems in the coastal area are subject to significant development pressures that lead to the impairment of the resources and their ecological values. Despite the enactment of wetland protection laws in the mid-1970s, coastal wetlands continue to be impaired. Today, about 25,000 acres of the state's vegetated tidal wetlands and approximately 50 percent of its freshwater wetlands remain.

Public Access

Greater affluence and more leisure time have compelled more and more people to seek out the state's coastal areas for recreation. Yet the large portion of the state's shoreline devoted to private development and uses blocks access to much of the shore. While there are numerous state and local parks, many are not close to population centers. In other cases facilities are stressed due to over use and competing recreational demands. Private development has also effectively blocked or limited access to public trust lands adjacent to and under coastal waters. Thus, viable recreational and economic use of this public coastal resource is limited.

Cumulative and Secondary Impacts

The pressure of use and development on coastal resources is also resulting in numerous cumulative and secondary impacts. Faced with a lack of scientific data to predict impacts, the reactive nature of the regulatory process and a lack of consensus among governments on how best to respond to issues affecting coastal regions, consideration of cumulative and secondary impacts is not adequately addressed in state and local government decisions. Current planning in the various state agencies focuses on individual agency operations or programs not on a system-wide view of coastal areas, coastal resources, or coastal economics. Gaps in the geographical coverage of LWRPs reduce the effectiveness of local government efforts to manage cumulative and secondary impact. In addition, county government, which undertakes many activities that can affect the coastal area, is not included in the state's coastal management efforts.

Coastal Hazards

Within the last 30 years development has also begun to seriously encroach on the state's coastal hazard areas without regard to natural processes, resulting in significant loss of natural features like beaches, dunes, bluffs, and barrier islands. At the same time, development of hazard areas has increased the risk to life and property and increased governmental costs for disaster relief, reconstruction of public facilities, and maintenance of protective structures which often have off-site negative impacts.

List of New York §309 Projects for FY92 and FY 93

Wetlands, Public Access, Coastal Hazards, Cumulative and Secondary Impacts

NY (1) Regional Coastal Management Programs, WF, FY92--\$247,794, FY93--\$273,600

NY (2) Long Island Sound Consistency Standards for Wetlands, Access, Cumulative, Secondary Impacts, and Hazards, PSM, FY92--\$121,930

Wetlands

NY (3) Tidal Wetlands Act Amendments, PSM, FY92--\$28,000

Coastal Hazards

NY (4) Nor'easter Storm Regulatory Modifications, PSM, FY93--\$84,080

Coastal Hazards and Public Access

NY (5) Regulations to Implement Chapter 791 of the Laws of 1992, PSM, FY93--\$75,000

A summary evaluation of each §309 project is attached.

State Contact: Department of State, Division of Coastal Resources and Waterfront Revitalization, 518-474-6000
162 Washington Avenue, Albany, NY 12231
518-474-6000 (Phone)

Contact: Charles McCaffrey, 518-474-6000, 518-473-2464 (fax)
Fred Auders (Coastal Hazards)

Title: NY (1) Regional Coastal Management Programs, WF, FY92--\$247,794, FY93--\$273,600

Project Description: The New York Governor's Task Force on Coastal Resources recommended that the Department of State (DOS) develop regional coastal management programs (RCMPs) that refine the state coastal policies to reflect the unique characteristics of the distinct coastal regions of the state as substitutes for the state Coastal Management Program. The New York State §309 Strategy proposed that four enhancement areas--wetlands, public access, cumulative and secondary impacts, and coastal hazards--will be addressed as components of regional coastal management programs. Long Island Sound was selected as the first coastal area for which an RCMP will be developed. The Long Island Sound RCMP will be an integrated effort that addresses the four enhancement areas.

Length of Project: 1 year (July 1, 1992 - June 30, 1993)

1 year cost extension approved through October 31, 1994

Project Benchmarks

FY92 (revised)

- description of the public involvement process
- draft inventory and analysis for wetlands and public access
- analysis of trends in land use on their potential affect on coastal resource use
- draft revised policies and guidelines for wetlands, public access, cumulative and secondary impacts and coastal hazards
- preliminary identification of areas for concentrated development and environmentally sensitive areas
- draft public investment strategy and programmatic priorities
- draft Regional Coastal Management Program submitted to OCRM

FY93

- documentation of public comments and responses and necessary environmental review procedures
- final Long Island Sound Coastal Management Program prepared

Project Completion Status

FY92 Work - Completed

FY93 Work - Nearly Completed-- The Environmental Impact Statement should be done by mid October 1994 and the Routine Program Implementation with revised coastal regulations should be in place by end of October 1994.

Project Results

- a) *Proposed Program Change:* Not Accomplished—expected by end of August 1994—
To develop a regional program for Long Island Sound, with regulations specific to that area, which will substitute for the state program. (LP)
- b) *Summary of Results/Enhancement:* Once the program is in place, Long Island Sound will have more detailed standards and public investment priorities than when it was just part of the general state program.
- c) *Project Products to Date*
- 1) Final draft of Long Island Sound Regional Coastal Management Program
 - 2) Final draft of Environmental Impact Statement
 - 3) Proposed Regulations (see NY (2) Long Island Sound Consistency Standards for Wetlands, Access, Cumulative, Secondary Impacts, and Hazards for details)

- d) *Other Benefits/Spin-off:* The project has substantially increased the coastal program's visibility in the state.
- e) *Unexpected Results:* None.
- f) *Impediments to Project Success:* The Division of Coastal Resources underestimated the time necessary to develop the program.
- g) *Was the project national/state/local in importance?* National. Regional Coastal Management Programs (RCMPs) are appropriate for New York because its coast is very varied. The RCMPs could be a model for other states with varied coastlines where it would make sense to have a regional view.

Title: NY (2) Long Island Sound Consistency Standards for Wetlands, Access, Cumulative, Secondary Impacts, and Hazards, PSM, FY92--\$121,930

Project Description: The New York Department of State (DOS), Division of Coastal Resources, will draft amendments to the Waterfront Revitalization and Coastal Resources Act (WRCRA) which will allow the Department to establish regional standards for wetlands, public access, coastal hazards and cumulative and secondary impacts that are based upon approved regional coastal management programs. Supporting documentation for the WRCRA amendments will be prepared, and briefings with the Governor's office and State Legislature will be held, as necessary. DOS will also meet with interested state and municipal agencies and others affected to discuss appropriate standards and criteria for the New York State Long Island Sound region (north shore of Long Island, New York City Long Island Sound shore, Long Island Sound shore of Westchester County). Following enactment of the WRCRA amendments, draft standards and criteria for Long Island Sound will be prepared in regulatory form. This project is to be done in conjunction with NY (1) Regional Coastal Management Programs.

Length of Project: 1 year (July 1, 1992 - June 30, 1993)

*Extended to October 31, 1994

Project Benchmarks

FY93

- draft WRCRA amendments and supporting documentation
- draft Long Island Sound standards and criteria

Project Completion Status

FY93 Work - Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished--expected by end of October 1994— This project is done in conjunction with NY (1) Regional Coastal Management Programs, the proposed program change for which is to develop a regional program for Long Island Sound, with regulations specific to Long Island Sound, which will substitute for the State Program. The WRCRA amendments, the first part of NY (2) did not pass, but the regional program does not depend on their passing. The second part of NY (2), the draft Long Island Sound standards and criteria, have been published and are expected to be adopted by the end of August. (LP)
- b) *Summary of Results/Enhancement:* Once the Long Island Regional Coastal Management Program (NY (1)) is in place, Long Island Sound will have more detailed standards and public investment priorities than when it was part of the general state program.
- c) *Project Products to Date*
- 1) Draft WRCRA amendments and supporting documentation
 - 2) Draft Long Island Sound standards and criteria
- d) *Other Benefits/Spin-off:* Provides a useful model for the New York Division of Coastal Resources to significantly improve the standards for consistency decisions for other parts of the state.

- e) *Unexpected Results:* None.
- f) *Impediments to Project Success:* The Division of Coastal Resources underestimated the time necessary to finish this project.
- g) *Was the project national/state/local in importance?* National. The project reflects a complete revision of New York's coastal policies, thus it is likely that it would be of interest to other states.

Title: NY (3) Tidal Wetlands Act Amendments, PSM, FY92--\$28,000

Project Description: The Department of Environmental Conservation (DEC) will draft amendments to the Tidal Wetlands Act that would prohibit the filling of tidal vegetated wetlands, except for the most critical and significant uses, and establish greater limitations on development activities to prevent degradation of the resource. This effort will also give consideration to extending the jurisdiction of the Tidal Wetlands Act in the Hudson River above the Tappan Zee Bridge, as proposed by the New York Governor's Task Force on Coastal Resources. Documentation supporting the proposed amendments will be prepared. Briefings with the Governor's office and State Legislature will be provided, as necessary. Following enactment of the amendments, the Tidal Wetlands Program regulations will be revised, and after environmental review (SEQR), adopted by DEC.

Length of Project: 1 year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92 (revised)

- proposed amendment to the Tidal Wetlands Act and supporting documentation
- draft regulations

Project Completion Status

FY92 Work - Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished--The task was to prepare proposals so the project was completed, but the amendment was not enacted so the actual program change did not go through.
- b) *Summary of Results/Enhancement:* No enhancement because the amendment was not enacted.
- c) *Project Products to Date*
 - 1) Proposed amendment to the Tidal Wetlands Act and supporting documentation
 - 2) Draft regulations
- d) *Other Benefits/Spin-off:* None.
- e) *Unexpected Results:* None--the Department of State knew at the outset that the chances for the amendment to be enacted were not high.
- f) *Impediments to Project Success:* It is harder to do a project when it is carried out by another agency (the Department of Environmental Conservation); it was difficult for the Division of Coastal Resources because they were not in control of the actual work.
- g) *Was the project national/state/local in importance?* State.

Title: NY (4) Nor'easter Storm Regulatory Modifications, PSM, FY93--\$84,080

Project Description: This project has three parts, described as follows:

- 1) Regulation of Hazard Area Construction--The Department of State will prepare an amendment to the State Building Code to improve coastal construction standards and present it for approval by the State Uniform Fire and Building Code Council. Currently, local building codes, which must meet minimum standards of the State Uniform Fire Protection and Building Code, have no special provisions for construction in coastal hazard areas.
- 2) Hazards Property Disclosure--The Department of State will prepare amendments to the appropriate New York State laws to require disclosure when property is located in coastal hazard areas. A variety of techniques will be investigated to achieve this program change. Techniques under consideration are: a hazard designation recorded on tax maps and official records in municipal and county clerks' offices; a hazard designation included on all contracts of sale; and a required notification of the hazard potential by realtors and/or lenders.
- 3) Limits on State Expenditure in Hazard Areas--A proposed Executive Order will be submitted to the Governor for consideration which will require state agencies to limit public subsidies and expenditures in areas designated under the federal Coastal Barrier Resources Act (CBRA), in coastal high hazard areas, and in areas identified for such action in regional Coastal Management Plans. Limiting state expenditures would focus development away from hazard areas. Limiting state expenditure of funds, particularly for public services and infrastructure, will provide a greater level of protection for these locations directly and by restricting the development potential of hazardous areas and reduce costly future damages.

Length of Project: 1 year (July 1, 1993- June 30, 1994)

Project Benchmarks

FY93

- 1) Regulation of Hazard Areas Construction
 - identify procedures for changing building code and review standards of other jurisdictions
 - prepare draft of Building Code changes
 - discuss changes with state agencies and complete review of draft changes
 - prepare and submit final changes to the Council as an amendment to the Code
- 2) Hazards Property Disclosure
 - identify and analyze existing New York State real property, banking and related laws
 - prepare draft law revisions
 - consult with agencies and organizations
 - prepare and submit final draft law revisions
- 3) Limits on State Expenditures in Hazard Areas:
 - analyze CBRA and impacts
 - draft Executive Order submitted to other agencies for comment
 - draft Executive Order submitted to Governor

Project Completion Status

FY93 Work

- Part 1) Completed
- Part 2) Completed
- Part 3) Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished. Part 1—Regulation of Hazard Areas Construction—the proposed building code changes have been submitted to the State Department of Housing and Community Renewal who then will submit them to the Building Code Council which has to undergo an internal process and public hearings which can take anywhere from six months to several years. As part of this process, the proposed changes may be returned to the Department of State for revisions. (RR) Part 2—Hazards Property Disclosure—the draft law revisions have been submitted and were going to be introduced into the Legislature through the Governor's office but there have been concerns from other agencies and political problems and the draft law revisions were not submitted to the Legislature. The Department of State may try to re-initiate this project next year. (RR) Part 3—The draft executive order has been submitted to the Governor's office but is currently on hold because of political considerations. It is controversial and is not expected to be signed until further review has taken place. (AA)
- b) *Summary of Results/Enhancement:* Part 1--If the Building Code changes are approved, coastal construction will be improved and make New York state Building Code be in conformance with FEMA, currently, there is a conflict between state building code and the National Flood Insurance Program (NFIP) guidelines. The changes to the Building Code would remove the confusion that property owners face attempting to comply with conflicting regulations. Part 2--If the revisions to the law ever go through prospective buyers would be informed that they would be purchasing property in hazardous locations and hopefully would be discouraged. At present there is nothing that targets prospective buyers to discourage them from buying in hazardous areas.
Part 3—If the Executive Order gets signed it will stop state expenditures in CBRA and coastal hazard areas where expenditures promote new development. Currently there are no limits on state expenditures in CBRA or coastal hazard areas.
- c) *Project Products to Date*
- 1) Regulation of Hazard Areas Construction--final changes to the Building Code
 - 2) Hazards Property Disclosure--final draft law revisions
 - 3) Limits on State Expenditures in Hazard Areas-- draft Executive Order
- d) *Other Benefits/Spin-off:* This project focused the Division of Coastal Resources on these particular issues. Before getting the grant they had the ideas but never had the means to work on them.
- e) *Unexpected Results:* For the Hazards Property Disclosure, during the agency review period, the agencies brought up some points that were mechanical in nature, mechanisms for actual disclosure, that DOS had not thought of before.
- f) *Impediments to Project Success:* DOS did not anticipate the extent of political concern that would be encountered with these projects.
- g) *Was the project national/state/local in importance?*
- 1) Regulation of Hazard Areas Construction--State
 - 2) Hazards Property Disclosure and 3) Limits on State Expenditures in Hazard Areas--National, other states might be very interested in implementing similar ideas.

Title: NY (5) Regulations to Implement Chapter 791 of the Laws of 1992, PSM, FY93--\$75,000

Project Description: Chapter 791 includes authorization for local governments to prepare harbor management plans and laws, subject to approval of the Secretary of State. In order to incorporate a new statewide approach to harbor management into the Coastal Management Program the following will be prepared: regulations, guidelines and a strategy for assisting and inducing local government preparation of harbor management plans. Three selected harbor management plans will be developed. Chapter 791 also provides for the Department of Environmental Conservation and the Department of State to review all leases, easements and permits for use of lands now or formerly underwater. New state procedures for review of all leases, easements and grants of lands now or formerly underwater will be developed and incorporated into the New York Coastal Management Program. The standards guiding decision-making on the transfer of underwater lands will be incorporated as new enforceable policies regarding the use of underwater lands and the application of the public trust doctrine.

Length of Project: 1 year (July 1, 1993- June 30, 1994)

Project Benchmarks

FY93 (revised)

1) Harbor Management Plans

- draft amendments to New York Code of Rules and Regulations (NYCRR) which will contain regulations for the preparation of harbor management plans and laws and the Department of State approval process
- information package for local government which will explain the advantages of the new authority for harbor management
- guidelines for the writing of harbor management plans and local laws
- a strategy and timetable for assisting all local governments to develop harbor management plans
- final regulations for harbor management plans and local laws
- three harbor management plans developed

2) Underwater Lands

- meetings with key agencies completed
- draft MOU between the Department of State, the Department of Environmental Conservation, the Office of Parks, Recreation and Historic Preservation and the Office of General Services on the process and criteria for the disposition of underwater lands
- final MOU signed
- regulations on the transfer of underwater lands submitted to OCRM

Project Completion Status

FY93 Work - Completed

Project Results

*a) Proposed Program Change: Nearly Accomplished--*The final regulations for harbor management plans and local laws will be sent to OCRM in the first week of August, 1994. The implementation of the three harbor management plans hinges on local law adoption, which is expected by the end of August or September, 1994. The proposed program changes are to have new state regulations providing for harbor management plans and to have Routine Program Implementation for three local waterfront programs. (RR, LP)

- b) *Summary of Results/Enhancement:* Before this project, there was nothing in place and a lack of clear authority for the local governments.
- c) *Project Products to Date*
Harbor Management Plans
- 1) Draft amendments to New York Code of Rules and Regulations (NYCRR) containing regulations for the preparation of harbor management plans and laws and the Department of State approval process
 - 2) Information package for local government which explains the advantages of the new authority for harbor management
 - 3) Guidelines for the writing of harbor management plans and local laws
 - 4) Strategy and timetable for assisting all local governments to develop harbor management plans
 - 5) final regulations for harbor management plans and local laws
 - 6) Three harbor management plans developed
- Underwater Lands
- 7) Signed MOU between the Department of State , the Department of Environmental Conservation, the Office of Parks, Recreation and Historic Preservation and the Office of General Services on the process and criteria for the disposition of underwater lands
 - 8) Regulations on the transfer of underwater lands submitted to OCRM
- d) *Other Benefits/Spin-off:* None.
- e) *Unexpected Results:* None.
- f) *Impediments to Project Success:* None.
- g) *Was the project national/state/local in importance?* State.

NORTH CAROLINA

The §309 Priority Enhancement Needs identified by North Carolina cover four issues:

- Wetlands
- Cumulative and Secondary Impacts
- Special Area Management Planning
- Ocean Resources Planning

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Wetlands

North Carolina does not regulate non-tidal freshwater wetlands. Few land use plans manage or protect non-tidal freshwater wetlands. Unfortunately, the state does not have any information on these types of wetlands. There is a severe lack of extent, location and function of wetlands within the state. Inventories, mapping and categories for wetlands protection need to be developed. The NC Coastal management Plan existing policy on wetland mitigation is ambiguous and seldom applied. Although mitigation requirements have been included in §404 permit conditions, there is no coordinated wetlands restoration/creation program to guide mitigation and ensure its meaningful application.

Cumulative and Secondary Impacts

Although there is a widespread perception that cumulative impacts of growth and development are adversely affecting North Carolina coastal areas, there is a lack of data on coastal resources, population, growth, and development on which to base that assessment. Legislative authority exists to consider cumulative impacts in permit decision-making, but there are no guidelines for doing so in CAMA rules or other regulatory agency rules. In short, the State lacks the data and techniques to assess or address.

North Carolina will develop enforceable guidelines for consideration of Cumulative impacts in permit decisions, identify and designate critical watersheds where cumulative impacts are most significant, and develop methods to minimize those impacts. The state will also address cumulative and secondary impacts through special area management planning.

Special Area Management Planning

North Carolina's §309 Assessment identified Special Area Management Planning (SAMP) as a tool of potentially great value in addressing coastal problem areas. At least two areas with specialized problems and use conflicts have been identified (a harbor area and a State port area). The use of a SAMP is also proposed under the Cumulative Impacts priority area as a means of addressing the minimization of cumulative and secondary impacts. Since SAMPs have not been used in the NC Coastal Management Plan, outside of Areas of Environmental Concern (AEC), there are no guidelines for their enforceability outside of AECs. The relationship of SAMPs to overlapping local land use plans is undefined, as are any mechanisms for the enforcement of SAMPs.

Ocean Resource Planning

North Carolina will strengthen its ocean management policies by developing a comprehensive Ocean Resources Management Plan. The state will establish an Ocean Resources Task Force composed of government officials and scientists and supported by state agency staff to develop the plan and oversee its operation. North Carolina's current ocean management programs will be analyzed.

List of North Carolina §309 Projects for FY1992 and FY1993

Wetlands

- NC (1) Development of a Wetlands Conservation Plan for the North Carolina Coastal Area, WF, FY92--\$39,054, FY93--\$19,743 + \$32,757, PSM, FY93--\$70,000
- NC (2) changes in Land Use Plan Guidelines for Wetlands and Advanced Identification of Wetlands in Trial County, PSM, FY92--\$75,000, WF, FY93--\$6,800
- NC (3) Development of a Wetlands Restoration Program, WF, FY92--\$28,554, FY93--\$21,550
- NC (4) coastal Wetlands Secondary Impacts, WF, FY92--\$16,577, FY93--\$4,900
- NC (5) Mitigation Policy, WF, FY93--\$4,500

Cumulative and Secondary Impacts

- NC (6) Cumulative Impacts in CAMA Permits, WF, FY92--\$16,249, FY93--\$12,150
- NC (7) Designating Critical Watersheds, PSM, FY92--\$40,000, FY93--\$75,000, WF, FY92--\$43,180, FY93--\$36,288
- NC (8) Minimizing Cumulative Impacts, WF, FY92--\$3,949, FY93 \$7,012
- NC (9) Changes in Land Use Plan Guidelines for CSI, WF, FY92--\$4,678, FY93--\$7,400
- NC (10) Adequacy of Areas of Environmental Concern (AECs), WF, FY92--\$6,317, FY93--\$20,500

Special Area Management Plans

- NC (11) Applicability of SAMPs, WF, FY92--\$14,292, FY93--\$3,000

Ocean Resources Management

- NC (12) Development of a Comprehensive Ocean Resources Management Plan for North Carolina, WF, FY92--\$28,750, FY93--\$25,000

A summary of each §309 project is attached.

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Title: NC (1) Development of a Wetlands Conservation Plan for the North Carolina Coastal Area, WF, FY92--\$39,054, FY93--\$19,743 + \$32,757, PSM FY93--\$70,000

Project Description: The purpose of this project is to develop a Wetlands conservation Plan. The plan will include a GIS-based inventory and mapping of coastal area wetlands; scientifically-based functional assessment of the relative importance or priority of wetlands for protection; a monitoring system to track trends in wetland types; and enforceable policies for protection and management of both tidal and non-tidal wetlands. Policies will be implemented through the state CZMP and state consistency requirements for wetland permits. The Plan will be state adopted and rules will be revised to implement the plan.

The PSM portion of this multi-year effort (Wetlands Functional Assessment and Categorization) involves development of a functional assessment method to be used in assessing and prioritizing wetlands.

Length of Project: 4 Years (October 1, 1992-September 30, 1996)

Project Benchmarks

FY92

- wetlands inventory and mapping
- functional assessment of wetlands

FY93

- monitoring system

Project Completion Status:

FY92-Completed

FY93-Completed

Project Results:

- a) *Proposed Program Change:* Not Accomplished
 - 1) Adoption of State Wetlands Conservation Plan not scheduled until 1995. (SP, RR)
 - 2) Functional Assessment Methodology is not a program change (NPC)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) Wetlands Inventory and Mapping Final Report
 - 2) Functional Assessment Methodology is not a program change (NPC)
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (2) Changes in Land Use Plan Guidelines for Wetlands and Advanced Identification of Wetlands in Trial County, PSM, FY92--\$75,000, WF, FY93--\$6,800

Project Description: The purpose of this project is to improve wetlands protection in North Carolina.

The PSM portion of this project is to develop and test wetlands identification techniques and approaches before attempting to incorporate them into revised local land use planning guidelines for increased wetlands protection. It is being carried out as a Wetlands Advanced Identification (ADID) project in conjunction with the EPA and the Army Corp of Engineers, Wilmington District.

The WF portion of this project aims at changing the state's land use plan guidelines for wetlands through revised regulations. The land use guidelines will be implemented at the local level to protect threatened wetland areas.

Length of Project: 4 Year (October 1, 1992 - September 30, 1996)
(PSM was 1 Year - October 92- September 93)

Project Benchmarks

FY92 (PSM)

- develop and test wetlands identification techniques in one county
- prepare wetland maps
- develop functional assessment map
- functional assessment methodology and final report

FY93

- continue wetlands identification
- develop draft guidelines

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
- 1) The PSM portion of this project was designed to test wetlands identification techniques. (NC)
 - 2) The WF portion of this project will result in Revised Regulations for Local Land Use Plan Guidelines for Wetlands. This is not scheduled until 1996. (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
PSM attempted to develop modeling methodology for assessing wetlands. Project provided baseline information assist in ADID Project and development of state wetlands land use guidelines.
- c) *Project Products*
- 1) Wetlands Maps
 - 2) Functional Assessment Report
- d) *Other Benefits:* PSM used to leverage additional funds from other sources to continue needed work on wetlands assessment.

- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* Had difficulty in developing wetlands modeling methodology and Advanced Wetlands Identification (ADID) effort with EPA taking a long time due to EPA requirements.
- g) *Is the Project of National/State/Local Importance:* National and State

Title: NC (3) Development of a Wetlands Restoration Program, WF, FY92-
-\$28,554, FY93--\$21,550

Project Description: The purpose of this project is to develop a Wetlands Enhancement, Restoration and Creation Program in coordination with other state and federal agencies. The wetlands restoration program will include: identification of effective restoration techniques; creation of a database of existing restoration sites; identification of potential restoration sites on a watershed-by-watershed basis; integration with compensatory mitigation requirements of state and federal agencies; and development of an overall Wetlands Restoration/Creation Plan for the coastal area to complement the Wetlands Conservation Plan. Legislation will be sought to fund implementation of the plan.

Length of Project: 4 Years (October 1, 1992-September 31, 1996)

Project Benchmarks

FY92

- identification of restoration techniques
- creation of database
- identification of potential restoration sites

FY93

- integration of restoration and compensatory mitigation requirements draft report
- draft wetlands restoration/creation plan

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
 - 1) Adoption of State Wetlands Conservation Plan not scheduled until 1995. (SP, RR)
 - 2) Functional Assessment Methodology is not a program change (NPC)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) Restoration Techniques Report
 - 2) Restoration Database Report
- d) *Other Benefits:* EPA Grant being used to supplement restoration plan development
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (4) Coastal Wetlands Secondary Impacts, WF, FY92--\$16,577,
FY93--\$4,900

Project Description: The purpose of this project is to conduct an investigation to determine whether additional protection measures are needed protect North Carolina's salt marshes.

Length of Project: 2 Years (October 1, 1992 - September 30, 1994)

Project Benchmarks

FY92

- investigation state salt marsh protection program

FY93

- determine adequacy of protection and program changes needed

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) **Proposed Program Change: Not Accomplished**
 - 1) Project designed as a research investigation. Findings recommended no changes to law or rules over salt marshes. No program changes. (NPC)
- b) *Summary of Results/Enhancement:* Study verified that North Carolina's laws and regulations governing protection of its salt marshes are adequate and do not need revisions.
- c) *Project Products*
 - 1) Coastal Wetlands Secondary Impacts Report
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (5) Mitigation Policy, WF, FY93--\$4,500

Project Description: The purpose of this project is to improve the wetlands mitigation policy for the State of North Carolina. The project involves development of new policies and amending existing mitigation policy through revised regulations.

Length of Project: 2 Years (October 1, 1993 - September 30, 1995)

Project Benchmarks

FY92

- assessment of existing state mitigation policies
- identification and development of new mitigation policies

FY93

- revised regulations to add new mitigation policies

Project Completion Status

FY92-Completed

FY93-On Schedule

Project Results

- a) *Proposed Program Change:* Not Accomplished
 - 1) Amend Mitigation Policy through revised regulations not due until 1995. (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) None
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* None
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (6) Cumulative Impacts in CAMA Permits, WF, FY92-\$16,249,
FY93--\$12,150

Project Description: The purpose of this project is to develop better procedures for considering cumulative impacts in permit decisions. This project involves a review of CAMA permit requirements; identification of weaknesses; development of additional procedural guidance and development of rule revisions.

Length of Project: 4 Years (October 1, 1992 - September 30, 1996)

Project Benchmarks

FY92

- review CAMA permit requirement and procedures
- identification of weaknesses

FY93

- development of CAMA Procedural Guidance

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
 - 1) Procedural guidance for Considering Cumulative Impacts in Permit Decisions due 1996 (PG)
 - 2) Revised Regulation in Cumulative Impacts due 1996 (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) CAMA Study
 - 2) Draft Procedural Guidance
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* None
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (7) Designating Critical Watersheds, PSM, FY92--\$40,00, FY93---\$75,000, WF, FY92--\$40,000, FY93---\$75,000, WF, FY92--\$43,180, FY93--\$36,288

Project Description: The purpose of this project is to address cumulative and secondary impacts of development through a multi-year, multi-project effort. This project involves development of resource impact factors, designation of new critical area in watersheds, and creation of new enforceable policies to address cumulative impacts through revised regulations.

Four separate activities were funded in FY92 and FY93.

A PSM in FY92 (Coastal Pollution and Development Information System) was funded to provide the capacity to plan for projected population growth and avoid cumulative impacts on coastal resources through an advanced GIS and data-base information tracking system. The tracking system will track coastal developments in 348 small watershed and their projected impacts. The end product will be an information system.

A PSM in FY93 (Development of Resource Impact Coefficients) was funded to develop resource impact coefficients that translate population growth into impacts on resources. The end project would be a methodology to establish estimated impacts of population on coastal resources and water quality.

WF funds were used in FY92 and FY93 for staff time to process information into the data bank and to identify high risk watersheds.

Length of Project: 4 years (October 1, 1992 - September 30, 1996)
(PSM FY92-ended Sept. 93)
(PSM FY93-ended Sept. 94)

Project Benchmarks

FY92 (PSM)

- Develop GIS and data-base
- Develop Tracking system

FY93

- Develop resource impact coefficients
- Estimate threshold values and carrying capacities for individual watersheds
- Create a simulation model to predict cumulative impacts of future coastal development
- Designate new critical areas in watersheds
- Develop enforceable policies for CSI

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
- 1) PSM - end product a tracking system (NPC)
 - 2) PSM - end product a predictive model (NPC)
 - 3) New Enforceable Policies on CSI in revised regulation due 1996 (RR)

- b) *Summary of Results/Enhancement*

- c) *Project Products*
 - 1) GIS and Information Tracking System Report
 - 2) Impact Coefficients Report
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* None
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (8) Minimizing Cumulative Impacts, WF, FY92--\$3,949, FY93--\$7,012

Project Description: The purpose of this project is to analyze cumulative impacts on small watershed and look at alternative to minimize these impacts. The project involves identification of small watershed, analysis of adverse CSI impacts, identification of alternatives, recommendations, and rule revisions.

Length of Project: 4 Years (October 1, 1992-September 30, 1996)

Project Benchmarks

FY92

- identification of small watersheds
- analysis of adverse impacts

FY93

- identification of alternatives

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
 - 1) Analysis of impacts and alternatives and recommendations (NPC)
 - 2) Regulation Revisions not scheduled into 1996 (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet
- c) *Project Products*
 - 1) None
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is the Project of National/State/Local Importance:* State

Title: NC(9) Changes in Land Use Plan Guidelines for CSI, WF, FY92--
\$4,678, FY93--\$7,400

Project Description: The purpose of this project is to improve management of cumulative and secondary impacts on coastal resources from development. This project involves development of changes to the state's land use guidelines to address cumulative impacts including legislation and rule revisions.

Length of Project: 4 Years (October 1, 1992-September 30, 1996)

Project Benchmarks

FY92

- study cumulative impacts from land use

FY93

- identify possible changes to land use guidelines

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- Proposed Program Change:* Not Accomplished
 - 1) Legislation on Land Use Guidelines scheduled for 1996 (L)
 - 2) Rule Revisions for Land Use Guidelines scheduled for 1996 (R)
- Summary of Results/Enhancement:* Project not completed yet
- Project Products*
 - 1) None
- Other Benefits:* No
- Unexpected Results:* No
- Impediments to Project Success:* No
- Is the Project of National/State/Local Importance:* State

Title: NC (10) Adequacy of Areas of Environmental Concern (AECs), WF,
FY92--\$14,292, FY93--\$20,500

Project Description: The purpose of this project is to study the State's Areas of Environmental Concern (AEC) Program to determine if changes are needed to strengthen and expand the program. The project involves identification of program weaknesses and legislation and rule revisions to strengthen the program.

Length of Project: 4 Years (October 1, 1992 - September 30, 1996)

Project Benchmarks

FY92

- contract to study AEC Program

FY93

- develop recommended changes to AEC Program

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
 - 1) AEC Legislation scheduled for 1996 (L)
 - 2) AEC Rule Revisions Scheduled for 1996 (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) AEC Report by Contractor
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (11) Applicability of SAMPs, WF, FY92--\$14,292, FY93--
\$3,000

Project Description: The purpose of this project is to study the state's Special Area Management Planning (SAMP) process and apply it in specific case study area to explore how to use the SAMP concepts to deal with special problem areas. This project involves a contract study of the SAMP program; review report and recommendations; identify better mechanisms to deal with problem area; and develop procedural guidance to improve and expand the SAMP process.

Length of Project: 4 Years (October 1, 1992 - September 30, 1996)

Project Benchmarks

FY92

- Contract SAMP study

FY93

- Review report and recommendations

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
 - 1) Procedural Guidance for SAMPs scheduled for 1996 (PG)
- b) *Summary of Results/Enhancement:* Project not completed yet
- c) *Project Products*
 - 1) Report on SAMP by Contractor
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is the Project of National/State/Local Importance:* State

Title: NC (12) Development of a Comprehensive Ocean Resources Management Plan for North Carolina, WF, FY92 -- \$28,750, FY93-- \$25,000

Project Description: The purpose of this project is to strengthen North Carolina's ocean management policies, address state/federal overlapping jurisdictional issues, improve coordination, and establish unified ocean resource policies. This project involves establishment of an Ocean Resource Task Force; analysis of North Carolina's current ocean management programs; recommended changes to the state's Ocean Resources Management Plan; and analysis and digitization available ocean resources data and identification and timetable to fill data gaps. Recommended changes to Ocean Resources Plan to be adopted by revised regulations.

Length of Project: 4 Years (October 1, 1992 - September 31, 1996)

Project Benchmarks

FY92

- Ocean Resource Task Force
- Analysis of ocean management programs
- Recommended changes to Ocean Resources Management Plan
- analysis and digitization of ocean data
- identification and timetable to fill data gaps

FY93

- develop GIS data on ocean resources
- develop Task Force report on recommended rule changes to ocean plan

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
 - 1) Amendment by rule revisions to North Carolina's Ocean Management Plan not scheduled until 1996. (RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) Ocean Resources Task Force Report
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No
- g) *Is the Project of National/State/Local Importance:* State

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

The §309 priority enhancement needs identified by the Commonwealth of the Northern Mariana Islands cover three issues:

- Hazards
- Cumulative and Secondary Impacts
- Wetlands

The problems identified in the §309 enhancement issue areas are summarized as follows:

Hazards

The Commonwealth of the Northern Mariana Islands is highly susceptible to typhoons, storm surge, high wave energy and seismic occurrences due to its expansive coastline, geographic location and limited land mass. All of the CNMI's major villages are located within or in close proximity of the coastline. This fact, along with the recent reminder from Super Typhoon Gay in 1992, has created a strong awareness of the importance of hazards preparedness. CNMI needs to identify high risk coastal areas and establish new policies and regulations for these areas.

Cumulative and Secondary Impacts

On islands as small as those in the CNMI, the entire coastal zone is sensitive. The farthest point from the ocean on any island is only three miles. Development in any part of the CNMI can affect the natural resources and result in cumulative and secondary impacts. Most of the tourist hotels and associated businesses in the CNMI, particularly on the island of Saipan, are concentrated along the shoreline. However, there are other developments scattered throughout the islands, such as quarries, garment factories, apartment buildings, etc. So far most of the development has been on the island of Saipan where the beaches, lagoon, and mangroves have experienced cumulative impacts from development. Now major developments are under construction or proposed for the islands of Tinian and Rota. Tinian has legalized gambling, driving development of casino-hotels and associated facilities: golf courses, marinas, condos, tennis courts). This has raised concerns about cumulative and secondary impacts. There is a need for mechanisms to manage cumulative and secondary impacts of development on CNMI.

Wetlands

Currently Lake Susupe and the large contiguous reed marsh and swamp on the western coastal plain of Saipan comprise over 60 percent of the freshwater wetlands in the CNMI. Smaller marshes on Saipan, the Pagan lakes, Lake Hagoi and a swamp on Tinian make up most of the remainder. The type and location of wetlands on the CNMI has been inventoried. Lagoons, marshes and mangrove habitats adjacent to developed western portions of the island of Saipan are possibly being affected by pollutants and sediments from stormwater runoff and pollutants from the Puerto Rico dump. Future development on Tinian and Rota islands will have similar adverse impacts on wetland resources. Improved wetlands protection measures are needed.

List of Northern Mariana Islands §309 Projects for FY93

Coastal Hazards

CNMI (1) Coastal Hazards Project, WF, FY93--\$44,000

(CNMI received no §309 funding in FY92, no PSMs in FY92 and FY93)

A summary evaluation of each §309 project is attached.

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Title: CNMI(1) Coastal Hazards Project, WF, FY93--\$44,000

Project Description: The purpose of this project is to improve coastal hazards management in the Commonwealth of the Northern Mariana Islands. This project contains two components:

(1) compilation of scientific, historical, and legal information and completion of coastal hazard mapping resulting in a coastal hazards identification and management report and implementation of policy and regulatory changes; and (2) public information and education campaign to support coastal hazard management improvements.

Length of Project: 2 Years (October 1, 1993- September 30, 1995)

Project Benchmarks

FY93

- field investigation and research on coastal hazards, historical assessment of coastal processes/hazards on coastal structures
- series of maps showing areas susceptible to high coastal hazards, erosion trends, etc.
- draft coastal hazards identification and management options report
- develop coastal hazards slide show

FY94

- finalize coastal hazards identification and management options report
- develop enforceable policies to implement program change recommendations- policy and regulatory changes, draft legislation, nonregulatory approaches
- public information campaign- brochures, newspaper articles, fact sheets, workshops, PSAs, coastal hazard video, coastal hazards brochure

Project Completion Status

FY93 Work - Completed or On Schedule

Project Results

- a) *Proposed Program Change: Not Accomplished* -- project not scheduled for completion until September 30, 1996
Adopt enforceable policies on coastal hazards (L, RR, PG)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) Draft Coastal Hazards Identification and Management Report
 - 2) Coastal Hazards Slide Show
 - 3) Coastal Hazards Maps
- d) *Other Benefits:* Expect an increase in public awareness, also see below.
- e) *Unexpected Results:* Improved coordination with agencies the CNMI Coastal Program has not historically worked with, namely the Federal Emergency Management Agency and the local hazards agency.
- f) *Impediments to Project Success:* Political opposition to existing and additional regulations, as witnessed by the Legislature in 1993 repealing the island-wide zoning

code. Therefore, foresee shifting focus of this project to non-regulatory approaches to improved hazards management.

- g) *Is Project of National/State/Local Importance:* Commonwealth and National- should also have application in other coastal states.

OREGON

The §309 priority enhancement needs identified by Oregon cover four issues:

- Ocean Resources
- Hazards
- Cumulative and Secondary Impacts (dropped from revised Strategy beginning FY94)
- Wetlands (dropped from revised strategy beginning FY94)

The problems identified in the §309 enhancement issue areas are summarized as follows:

Ocean Resources

Oregon possesses a diverse, complex and productive coastal environment including continental shelf and ocean marine resources. Human use is greatest near the coastline. Certain of Oregon's marine resources, chiefly marine mammals, seabirds, and rocky intertidal areas, are at risk from encroachment on critical or sensitive habitat and depletion or destruction of food resources. Some of these sites are habitat for migratory gray whales, the threatened Steller sea lion and other endangered species. Offshore oil and gas and marine mineral development may not occur until the future, but other resource use conflicts and lack of detailed management programs threaten the health of Oregon's ocean environment and renewal marine resources.

Oregon needs to adopt and implement its territorial sea plan, adopt site-specific management plans and protection measures for critical marine mammal and seabird habitat; improve ocean resource GIS capability to support ocean planning and management decisions; continue to provide citizens information and opportunities for participation in ocean planning; and coordination with federal agencies.

Hazards

Oregon's coast is an extremely dynamic environment. Development is constrained by many types of natural hazards including erosion, landslides, tsunamis, flooding, storm surge, and earthquakes. Nevertheless, coastal property values have increased dramatically building continues as close to the ocean's edge as possible with little regard for the geologic forces at work. As least hazardous sites are developed, development is proposed for more hazardous sites with attendant increase public and private costs. Local governments lack standards and procedures to ensure hazard avoidance. New geologic information on catastrophic hazards need to be incorporated into local and state plans and regulatory programs. Increase public awareness is needed.

Cumulative and Secondary Impacts

Population growth and demographic changes have had significant impacts in some of Oregon's coastal communities. In many small communities, growth has outstripped the capabilities of local governments to provide adequate public facilities and services. Development has displaced coastal habitat and related natural resources such as wetlands, beach cliffs, beach sand supply, plant and animal species, and coastal watershed water quality. Nearly all coastal streams are affected by at least one nonpoint source problem or another. Local governments in Oregon need financial and technical assistance to review and

update their comprehensive plans and ordinances to meet growth and changing conditions, including facility plans, improved policies and regulation of development in sensitive habitat areas and hazard areas, and prevention of nonpoint source pollution. Increased water quality monitoring is needed, along with citizen-based watershed management and assistance to local governments and state agencies in implementing the Coastal Nonpoint Pollution Control Program.

Wetlands

Oregon's coastal wetlands are limited to flat river valley bottoms, estuaries, coastal lakes caused by sand dunes and certain bog areas on uplifted coastal terraces. Nearly 80% of Oregon's wetlands have been lost, mostly as a result of diking and draining estuarine marshlands for agriculture. The remaining coastal wetlands are scattered and valuable. Serious development pressures continue to threaten the remaining wetlands. Oregon needs a computerized GIS data base to allow better analysis and agency decisions. Oregon needs to complete its wetlands assessment methodology and classification system. Local governments need financial and technical assistance to develop and adopt wetland conservation plans and implementing regulations and ordinances. Oregon needs to identify and prioritize estuarine areas for restoration of wetlands, develop standards and policies to guide restoration work, and use demonstration projects with monitoring to assess success.

List of Oregon §309 Projects for FY92 and FY93:

Ocean Resources

OR(1) Protection of Steller Sea Lion, PSM, FY92--\$68,000

Coastal Hazards

OR(2) Coastal Hazards Policy Working Group, WF, FY92--\$16,000, FY93--\$18,000

OR(3) Hazards Mitigation Requirements, WF, FY93--\$35,000, FY94--\$44,000

OR(4) Quality Control of Site-Specific Geotechnical Reports, WF, FY92--\$24,000

OR(5) All-Hazards Mapping Pilot Project, PSM, FY92--\$101,000

OR(6) Catastrophic Coastal Hazards Mapping, PSM, FY93--\$79,886

Cumulative and Secondary Impacts

OR(7) Inventory Standards for Sensitive Coastal Resources, WF, FY92--\$48,500

REVISED. See subtasks OR(7) (a)--(d) below:

OR(7)(a) Dune Area Inventory Standards

OR(7)(b) Economic/Demographic Impact Analysis

OR(7)(c) Intertidal Shores Resource Inventory

OR(7)(d) Aesthetic Resources Inventory

OR(8) Cumulative Impacts on Sensitive Shoreline Resources, WF, FY93--\$40,000

OR(9) Watershed-Based Water Quality Protection: Guidance Document for NPS Pollution Control, WF, FY92--\$12,500

Wetlands

OR(10) Wetlands Planning, WF, FY92--\$14,000

A summary evaluation of each §309 project is attached.

State Contact: Oregon Coastal Ocean Program
Department of Land Conservation and Development
800 N.E. Oregon Street, #18
Portland, OR 97232

503-731-4065 (Phone)
503-731-4068 (Fax)
Contacts: Don Oswalt 503-373-0091
Emily Toby 503-373-0096

Title: OR(1) Protection of Steller Sea Lion, PSM, FY92--\$68,000

Project Description: The purpose of this project is to study and protect the Steller sea lion, a threatened species. This project involves : (1) study of sea lion's habitat; (2) identify conflicting uses and threats to that habitat; (3) determine management needs and develop management alternatives for incorporation in state's Territorial Sea Plan. Ocean Resource PSM requested for FY93 did not get funded. See OR(8) for second year completion of this project regarding incorporation of rocky shore management in Territorial Sea Plan.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92

- Draft inventory report of species occurrence, seasonality, threats and use conflicts
- Preliminary management assessment of each site and overall territorial sea

Project Completion Status

FY92 Work - Completed in FY93

Project Results

- a) *Proposed Program Change:* See OR (8)
No change - Study Project only (NPC)
No change - Study Project only (NPC)
- b) *Summary of Results/Enhancement:* See OR (8)
- c) *Project Products*
 - 1) Coastal Threatened and Endangered Species Protection and Management Project-Final Report (12/93)
 - 2) Steller Sea Lion Counts in Oregon During June and July, 1975-1991
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success*
 - 1) Field work on this project is seasonal-dependent, and delays in obtaining NMFS permits for the work precluded field work from being completed summer of 1992;
 - 2) Second year of PSM was not funded by OCRM, requiring Oregon to revise it's FY93 WF project to include completion of this project.
- g) *Is Project of National/ State/ Local Importance:* National, Steller Sea Lions are a threatened marine mammal of national importance.

Title: OR(2) Coastal Hazards Policy Working Group, WF, FY92--\$16,000, FY93--\$18,000

Project Description: The purpose of this project is to define coastal hazards issues and problems, formulate and evaluate alternative solutions, and recommend preferred alternatives, working with a 21-member Policy Working Group (PWG). The group's principal focus is on policies related to beach erosion, ocean flooding, and related upland development. Recommendations will be implemented through local comprehensive plan ordinance amendments and state goal/statute/rule revisions.

Length of Project: 2 Years (July 1, 1992- June 30, 1994)

Project Benchmarks

FY92

- monthly meetings and quarterly progress reports

FY93

- monthly meetings, progress reports
- final Policy Working Group Recommendations Report

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

Project Results

a) *Proposed Program Change:* Not Accomplished.

The end product of this project was recommendations for change, not actual change. Program change will occur when Policy Working Group recommendations are adopted and implemented by the state and local governments. (NPC)

b) *Summary of Results/Enhancement:* Project resulted in consensus-based recommendations for hazards management in hazards assessment, land use, shore protection, disaster preparedness and response. Expect recommendations will be implemented over coming years. Project also resulted in coastal hazard management being incorporated into local plan periodic review work programs.

c) *Project Products*

- 1) Coastal Hazards Issues and Options Report (11/93)
- 2) Coastal Hazards Issues and Options: Evaluation Response Form (11/93)
- 3) Improving Natural Hazards Management on the Oregon Coast: Recommendations of Coastal Natural Hazards Policy Working Group (6/94)
- 4) Coastal Natural Hazards Issues and Options Report: Evaluation Results (7/94)

d) *Other Benefits:* Interagency coordination.

e) *Unexpected Results*

- 1) Excellent public awareness/education opportunity- more than 700 copies of the issues/options report decimated, 11 workshops held;
- 2) Oregon Scenic Safety Policy Advisory Committee asked Policy Working Group to serve as an advisory committee;
- 3) Consensus decision-making in group representing a broad range of stakeholders;
- 4) Assistance of multiple experts, educators, managers and researchers.

f) *Impediments to Project Success*

- 1) Lack of funding;
- 2) Staffing of Policy Working group not adequate.

g) *Is Project of National/ State/ Local Importance:* State and Local. Recommendations report will serve as a basis for program improvements pursued in Oregon. This consensus-based policy development process could serve as a guide/model nationally for evaluating programs, and building support and credibility for needed policy/program changes.

**Title: OR(3) Coastal Hazards Mitigation Requirements, WF, FY93--
\$35,000, FY94--\$44,000**

Project Description: The purpose of this project is to develop and implement hazard mitigation requirements and procedures. Explicit hazard mitigation requirements and procedures will be developed focusing on policies in two areas: location of new development in hazardous areas and protection of development already established in hazardous areas.

Length of Project: 2 1/2 Years (July 1, 1993- December 30, 1995)
No Cost Extension on FY93 Grant to Dec.31, 1994

Project Benchmarks

FY93

- Preferred alternatives document (10/93)
- Draft/Final mitigation requirements and procedures

FY94

- Advisory Committee meetings
- Hazards SAMP Framework

Project Completion Status

FY93 Work - On Schedule- extended to Dec. 31, 1994

FY94 Work - On Schedule

Project Results

- a) *Proposed Program Change:* Not Accomplished-- project change not scheduled for completion until 1995.
Adopt Hazard Mitigation Requirement (PG, RR)
- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products*
 - 1) Draft: Appraisal of Chronic Hazard Alleviation Techniques
- d) *Other Benefits:* Technical Advisory Committee participation/ construction setback formula
- e) *Unexpected Results*
 - 1) matrix/checklist of techniques applicable to Oregon;
 - 2) coordinated with independently funded (state general funds) project on dynamic/soft structures- design, applicability, etc.
- f) *Impediments to Project Success:* Social/cultural analysis difficult to do
- g) *Is Project of National/ State/ Local Importance:* National. Mitigation techniques and comprehensive evaluation are state-of- the-art.

Title: OR(4) Quality Control of Site-Specific Geotechnical Reports, WF, FY92--\$24,000

Project Description: The purpose of this project is to correct insufficiencies in the standards for the content of site-specific geotechnical reports used for decisions on development in hazardous locations and for construction of shoreline erosion control structures. This project involves development and implementation of quality control criteria and peer review procedures for site specific geotechnical reports. Model ordinances will be prepared for implementation at the local level through plan amendments and during periodic review, and/or at the state level through rule or statutory revisions.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92

- Development of quality control criteria and procedures/ Review of geotechnical report content standards and peer review procedures used elsewhere in the nation/ Summary report
- Draft model geotechnical report content standards and peer review procedures document - Final draft model geotechnical report content standards and peer review procedures.

Project Completion Status

FY92 Work - Completed

Project Results

- a) Proposed Program Change: Not Accomplished*
- 1) Quality Control Criteria and Procedures Guidelines. Prepared, but Oregon has not adopted an Administrative Rule requiring the use of the guidelines or model ordinances. (RR)
 - 2) Model Ordinances for Local Government Implementation- Not prepared, not required and not adopted.
- b) Summary of Results/Enhancement*
- 1) Quality Control Criteria and Procedures for site specific geotechnical reports was prepared. This is a necessary first step toward improving coastal hazard information used in decisions about the location of development in hazard areas and construction of shoreline structures. State needs to adopt these new criteria and procedures and local governments need to adopt implementing ordinances.
 - 2) Completed work is being used in mitigation project to develop construction setbacks.
 - 3) Quality Control Criteria and Procedures are being adopted in local plans and used as a basis for site assessments.
 - 4) This project has resulted in the integration of all-hazard maps and site reports.
- c) Project Products*
- 1) Guidelines for the Preparation of Technical Reports Related to the Impacts of Coastal Erosion
 - 2) Contents of Geotechnical Reports Related to the Impacts of Coastal Erosion and Related Hazards

- 3) Geotechnical Reports Review Process- Alternatives.

- d) *Other Benefits:* Board Geologist Examiner interest increased.
- e) *Unexpected Results:* Basis for site specific hazards assessment will be connected to hazards maps and integrate three §309 projects being completed by Oregon.
- f) *Impediments to Project Success*
 - 1) lack of funding;
 - 2) lack of staff time to bring project to completion;
 - 3) resistance to and failure to reach agreement on the need for professional standards/guidelines for site specific evaluations.
- g) *Is Project of National/ State/ Local Importance:* State and Local.

Title: OR(5) All-Hazards Mapping Pilot Project, PSM, FY92--\$101,000

Project Description: The purpose of this project is to develop a standardized methodology for determining the magnitude of shoreline instability resulting from the individual and combined effects of the chronic hazards that affect the Oregon Coast (ocean flooding, wave-induced erosion, landsliding). The standardized methodology developed will be applied to a 50-kilometer section of the central Oregon coast to produce maps for the study area. The methodology will be transferable to other areas of the coast, and policies and ordinances based on the results can be incorporated into local plans.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)
No Cost Grant Extension Approved through December 1993

Project Benchmarks

FY92

- Technical Review meetings
- Preliminary report to advisory committee
- Shoreline stability data base, hazards map
- Final standardized methodology report

Project Completion Status

FY92 Work - Completed

Project Results

a) Proposed Program Change: Not Accomplished

Hazards Assessment/Inventory Requirements- Not Completed. The methodology needs refinement/improvement before adoption. Expect Oregon Coastal Program to adopt standardized methodology and maps, as administrative rule amendment, for local governments to consider in planning. (RR)

b) Summary of Results/Enhancement

Chronic hazard maps were developed which provide a data base for the pilot area.

c) Project Products

- 1) Analysis of the Susceptibility of Coastal Properties to Wave Erosion (9/93)
- 2) All Chronic Hazards Mapping Pilot Project- Final Report (9/93)
- 3) Analysis of the Magnitude of Fore Dune Erosion in the Oregon Coast (9/93)

d) Other Benefits: State Geology Department renewed interest in coastal chronic hazards. Production of chronic hazard maps as a database for pilot project area. Ability to leverage funding from multiple sources for the project.

e) Unexpected Results

- 1) Information to be incorporated into littoral cell plans as a gratis contribution by the consulting firm;
- 2) other funding being pursued for remainder of the coast.

f) Impediments to Project Success

- 1) lack of funding

- 2) methodology for sandy beaches needs improvement, database problems. Oregon has proposed a FY94 PSM- Sandy Beach Methodology/Modeling to address this problem.
- g) *Is Project of National/ State/ Local Importance: State, and Local.* Also applicable as a model/methodology for mapping shoreline instabilities by other West Coast states with similar shoreline configurations.

Title: OR(6) Catastrophic Coastal Hazards Mapping, PSM, FY93--\$79,886

Project Description: The purpose of this project is to extend the mapping done in FY92 from chronic hazards to include the catastrophic hazards that affect Oregon's coast. This includes subduction zone earthquakes estimated to have a moment magnitude of 8 to 9 and a significant probability of occurrence in the next 50 years. Final program changes for this project will consist of amendments, including construction setbacks and siting standards, to local comprehensive plans and ordinances.

Length of Project: 1 Year (July 1, 1993- June 30, 1994)
No Cost grant Extension through December 31, 1994

Project Benchmarks
FY93

- Preliminary report on methodology and results
- Final report and map preparation. Dissemination of results through hazards workshop

Project Completion Status

FY93 Work - Not On Schedule but Expect to be Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished.
Project extension granted through December 1994. However, do not expect to accomplish program change which is amendments to local comprehensive plans and ordinances strengthening construction setbacks and siting standards. (LP)
- b) *Summary of Results/Enhancement:* Prototype map prepared on catastrophic hazards subduction zone earthquake data. See other benefits below.
- c) *Project Products*
 - 1) "Tsunami Warning Signs"
 - 2) Final Report on Catastrophic Coastal Hazards Mapping and Maps
- d) *Other Benefits*
 - 1) The mapping project has received considerable attention from both the electric and print media;
 - 2) several towns have begun to develop emergency plans;
 - 3) the project has helped provide the state with leverage to acquire other funds for geologic hazards work;
 - 4) integrated several researchers in Pacific Northwest doing Tsunami mapping.
- e) *Unexpected Results:* No
- f) *Impediments to Project Success*
 - 1) data cannot be represented meaningfully at same scale as chronic hazard maps;
 - 2) encountering data base and technical difficulties translating digital elevation data into the state's database GIS system;
 - 3) lack of funding.
- g) *Is Project of National/ State/ Local Importance:* National- Tsunami inundation, earthquake hazard- state of the art modeling and mapping.

**Title: OR(7) Inventory Standards for Sensitive Coastal Resources, WF,
FY92--\$48,500**

Project Description: The purpose of this project is to address cumulative impacts to sensitive coastal resources through development of inventory standards for a selected set of sensitive shoreline resources for incorporation into local comprehensive plans. The scope of this project was amended/revised to involve four separate activities:

OR(7)(a) Develop Inventory Standards for Dune Areas Subject to Ocean Undercutting (\$10,000)

OR(7)(b) Economic/Demographic Analysis (\$28,500 includes \$ of OR(7)(c) below)

OR(7)(c) Intertidal Rocky Shores Resources Inventory (\$ covered under OR(7)(b) above)

OR(7)(d) Aesthetic Resources Inventory (\$10,000)

See separate summary for each activity on following pages.

Title: OR(7)(a) Develop Inventory Standards for Dune Areas Subject to Ocean Undercutting, WF, FY92--\$10,000

Project Description: The purpose of this project is to develop inventory standards for dune areas subject to ocean undercutting in order to address cumulative impacts, in addition to coastal hazards. Many of the problems associated with dune systems are related to natural erosion and alternation prompted by increased development and the maintenance and creation of view sheds. This project involves: (1) inventory, demonstrate and map the natural functions that dunes perform; (2) program improvement strategy to improve local plans through development of new inventory standards and inventories that will be incorporated into local plans through plan amendments or periodic review process; (3) strategy to support revisions in the management of sand dune resources of state regulatory agencies: DSL and DP&R.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92

- Inventory and map natural functions of dunes
- Complete inventory standards and methodology

Project Completion Status

FY92 Work - Completed

Project Results

a) *Proposed Program Change:* Not Accomplished

- 1) Amendments to State Administrative Rules to require incorporation of Dunes Inventory Methodology and Inventories in local plan amendments or period review process - No Dune Inventory Methodology has been developed and will be incorporated into the coastal hazards mapping project and will also be transferred to relevant local governments who may apply it to develop a local inventory of foredune areas where appropriate. However, LCDC has not adopted the Dunes Inventory Methodology or Inventories as enforceable policies of program. (RR)
- 2) Revisions in the management of sand dune resources of state regulatory agencies: DSL and DP&R.- Not Accomplished (P)

State regulatory agencies have not yet revised their regulations to incorporate Dunes Inventory Methodology and Inventories. (RR)

b) *Summary of Results/Enhancement:* Not Accomplished (see above)

c) *Project Products*

- 1) Dune Inventory Methodology

d) *Other Benefits:* No

e) *Unexpected Results:* No

f) *Impediments to Project Success:* No

g) Is Project of National/ State/ Local Importance: State and Local

Note: OR(7)(a)-(d) Projects have resulted in inventory and analysis data which will be used as guidance information for local governments desiring to update dune, intertidal and aesthetic resources inventory and management. It does not constitute a "program change" because the data does not constitute an enforceable policy. However, if Oregon's CZMP amends its administrative rules regarding Goal 5 (natural Resources) to include the inventory standards and inventories for local plan amendments or under the period review process, these products will become "enforceable policies" of the Oregon Coastal Program.

Title: OR(7)(b) Economic and Demographic Analysis, WF, FY92--\$28,500

Project Description: The purpose of this project is to provide updated demographic and economic analysis that will be used by local governments when they review the assumptions upon which their local comprehensive plans are based. The shoreline resource analysis focuses on intertidal resource protection. The project includes: (1) an assessment and survey of the current management regime; (2) inventory of upland uses and access; (3) analysis of growth and build out patterns in a selected area; (4) distribution of information to local governments for use in reevaluating resource management policies in local plans during period reviews; (5) transfer to Dept. Parks and Recreation for use in reviewing and revising park management plans for areas included within the pilot project area.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92

- economic/demographic analysis report

Project Completion Status

FY92 Work - Completed

Project Results

a) *Proposed Program Change:* Not Accomplished

Project was designed as demographic and economic data collection and analysis. There is no "program change" component to this project. However, when local governments and the State Department of Parks and Recreation revise their plans, using this data for justification of plan amendments, the amended plans could constitute "program changes" as currently defined under §309 definition. (NPC)

b) *Summary of Results/Enhancement:* Not Accomplished (see above)

c) *Project Products*

- A Demographic and Economic Description of the Oregon Coast

d) *Other Benefits:* No

e) *Unexpected Results:* No

f) *Impediments to Project Success:* No

g) *Is Project of National/ State/ Local Importance:* State and Local

Title: OR(7)(c) Intertidal Rocky Shores Resource Inventory, WF, FY92

Project Description: The purpose of this project is to develop a methodology for assessing the impacts of development build-out on sensitive intertidal areas. The methodology will be applied to a rapidly developing pilot project area. The results will be made available to the relevant local governments; and the Parks and Recreation Department in evaluating and updating their management plans for state park lands in the area. This will be done within the context of the Rocky Shores Working Group of the Ocean Policy Advisory Council (OPAC).

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92

- develop methodology for assessing impacts of development on intertidal areas
- final report

Project Completion Status

FY92 Work - Completed

Project Results

a) *Proposed Program Change:* Not Accomplished

Project was designed as intertidal area data collection and analysis study. There is no "program change" component to this project. However, when local governments and the State Department of Parks and Recreation revise their plans, using this data for justification of plan amendments, the amended plans could constitute "program changes" as currently defined under §309 definition. (NPC)

b) *Summary of Results/Enhancement:* Not Accomplished (see above)

c) *Project Products*

- 1) Sensitive Shoreline Resource Area Management Analysis

d) *Other Benefits:* No

e) *Unexpected Results:* No

f) *Impediments to Project Success:* No

g) *Is Project of National/ State/ Local Importance:* State and Local

Title: OR(7)(d) Aesthetic Resources Inventory, WF, FY92--\$10,000

Project Description: The purpose of this project is to develop, in conjunction with the Department of Transportation (ODOT) HWY 101 Corridor Study, a definition and methodology for inventorying "exceptional aesthetic resources" as described in Statewide Planning Goal 17 for Coastal Shorelines. The projects involves mapping and inventorying exceptional areas, based on the definition for 12 zones of HWY 101 selected by ODOT Corridor Planning study team. The inventories will be used by both ODOT and the local jurisdictions as they develop the HYW 101 transportation plan for the coast. Local governments will use the inventory to update the local comprehensive plan resource inventories at period review. The program changes will occur and be reported on through the periodic review process and HWY 101 Plan adoption. The expected timeline for this to occur is two or three years. Periodic review standards and management plans will also be developed addressing aesthetic coastal shoreline resources.

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks

FY92

- inventory of exceptional aesthetic resources for study area along HWY 101
- periodic review standards and management plans for aesthetic resources report

Project Completion Status

FY92 Work - Completed

Project Results

a) *Proposed Program Change: Not Accomplished*

The project was designed as a data collection/inventory study. Program change will occur when local plans are updated to include "aesthetic resource" areas as part of their periodic plan update and review process and when the HYW 101 Plan is adopted and implemented. Expected to be accomplished by 1996. (NPC)

b) *Summary of Results/Enhancement: Not Accomplished (see above)*

c) *Project Products*

- 1) Exceptional Aesthetic Resources Technical Report

d) *Other Benefits: No*

e) *Unexpected Results: No*

f) *Impediments to Project Success: No*

g) *Is Project of National/ State/ Local Importance: State and Local*

**Title: OR(8) Cumulative Impacts on Sensitive Shoreline Resources, WF,
FY93--\$40,000**

Project Description: The purpose of this project is to address adverse impacts to the Oregon rocky shore ecosystem from increased recreational fishing, both on-shore and in-water. This project involves: (1) a rocky shore management assessment and policy analysis ; (2) development of habitat-based coastwide rocky shore management programs that will include mandatory, enforceable policies; (3) a study of rocky shore habitat; and (4) recommendations to Ocean Policy Advisory Council (OPAC) on rocky shore policies for incorporation in the Territorial Sea Plan (TSP).

Length of Project: 1 Year (July 1, 1993 - June 30, 1994)

Project Benchmarks

FY93

- Complete field work and preliminary report on Steller Sea Lion; make preliminary recommendations to OPAC on rock shore policies for use in TSP.
- Refine management measures on rock shore for use in TSP
- Finalize draft chapters of Territorial Sea Plan (TSP) with rocky shores management measures and policies and recommendations for adoption and implementation.
- Complete Territorial Sea Plan with rocky shores management measures and policies, recommendations for adoption and implementation

Project Completion Status

FY93 Work - Completed

Project Results

a) *Proposed Program Change:* Accomplished

Adopted Territorial Sea Plan which include Designation of Rocky Shore Management Areas (P)

b) *Summary of Results/Enhancement:* Territorial Sea Plan adopted including goals, policies and site management objectives for rocky shore management areas.

c) *Project Products*

- 1) Inventory of Oregon's Rocky Shores
- 2) Rocky Shoreline Management Measures in Territorial Sea Plan

d) *Other Benefits:* No

e) *Unexpected Results:* No

f) *Impediments to Project Success:* No

g) *Is Project of National/ State/ Local Importance:* State and National

Title: OR(9) Watershed-Based Water Quality Protection: Guidance Document for NPS Pollution Control, WF, FY92--\$12,500

Project Description: The purpose of this project (as redesigned) is to develop a guidance document for use by local planners to increase the ability of local plan and ordinance provisions to protect water bodies from NPS pollution. The document will also provide a basis for local adoption of measures to implement Oregon's Coastal Nonpoint Pollution Control Program (CNPCP).

Length of Project: 1 Year (July 1, 1992- June 30 , 1993)
No Cost 6 Month Grant Extension approved thru December 31, 1993

Project Benchmarks

FY92

- Select contractor
- complete document outline, draft document, final document

Project Completion Status

FY92 Work - Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished
No program change expected from this project. Program change will occur when Oregon adopts and implements it NSP Pollution Control program under Section 6217 CZMA. (NPC)
- b) *Summary of Results/Enhancement:* The NPS Pollution Control Guidebook produced by this project provides information to local planners which increases their ability to develop local plans and ordinances to protect water bodies for NPS pollution. This document will also provide a basis for local adoption of measures to implement Oregon's Coastal Nonpoint Source Pollution Control Program (CNPCP). Program change will occur when state and local governments implement Section 6217 CZMA.
- c) *Project Products*
1) Nonpoint Source Pollution Control Guidebook for Local Government
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* No, as redesigned- Note: Project originally approved as a Water Quality Community Involvement Project at \$14,000. This was to be a component of a multi-year project based on development of water quality inventory. But §309 funds for inventory not received and alternative funding not found. So project redesigned to produce Guide.
- g) *Is Project of National/ State/ Local Importance:* State and Local

Title: OR(10) Wetlands Planning, WF, FY92--\$14,000

Project Description: The purpose of this project is to incorporate into state law a methodology for assessing the functions and values of wetlands. Development of the assessment methodology is being funded by EPA. Before the methodology can become an enforceable part of the Oregon wetlands program, it needs to be tested and incorporated into state policy and administrative law. This project will involve writing administrative rules and policies for use of the assessment methodology and LCDC adoption as amendments to Statewide Goal 5 (Natural Resources).

Length of Project: 1 Year (July 1, 1992- June 30, 1993)

Project Benchmarks:

FY92

- technical committee to review Oregon Wetland Methodology
- draft methodology language specific to each agency program to include administrative rules clarifying Statewide Goal 5; periodic review standards for local jurisdictions to apply when assessing their wetland resources; administrative rules to be used by local governments in developing wetland conservation plans.

Project Completion Status

FY92 Work - Completed

Project Results

- a) *Proposed Program Change:* Not Accomplished- but expected to be accomplished in 1994.
- 1) Administrative rule amendments clarifying Statewide Goal 5- expected to be adopted in 1994. An LCDC Wetlands Advisory Group has recommended the wetlands methodology be included in LCDC's pending amendments to its Goal 5 (Natural Resources) Administrative Rules. (RR)
 - 2) DSL adoption of new rules and standards governing implementation of local wetland inventories and local wetland conservation plans - high level of interest but no schedule for adoption set. Two training sessions have been conducted to over-flow attendance. Another session is planned. (RR)
- b) *Summary of Results/Enhancement:* See Above.
- c) *Project Products*
- 1) Oregon's Freshwater Wetlands Assessment
- d) *Other Benefits:* No
- e) *Unexpected Results:* Overall use and acceptance at local level
- f) *Impediments to Project Success:* Incorrect perception that implementation costs may be too high.
- g) *Is Project of National/State/Local Importance:* All three. We have received numerous out-of-state requests for information.

Note: Development of wetlands assessment methodology , testing of methodology, adoption of methodology by rule amendments, training on implementation, and finally implementation of methodology is a long-term process. The §309 Program needs to recognize that it is often funding only a small piece of this and other such long-term processes that may take years to lead to program change and improvement.

PENNSYLVANIA

The §309 priority enhancement needs identified by Pennsylvania cover five issues:

- Cumulative/Secondary Impacts
- Coastal Hazards
- Wetlands
- Special Area Management Planning
- Public Access

The problems identified in the §309 priority enhancement areas are summarized as follows:

Coastal Hazards

The problems affecting the management of coastal hazards in Pennsylvania's Lake Erie coastal zone are improper structure siting (ISS) and unrestricted bluff development (UBD). The major factors causing ISS along the bluffs of Lake Erie are incomplete monitoring of bluff recession (lack of accurate bluff recession data), inconsistent local decision making, and the lack of a single file source of all legal interpretations of the Bluff Recession and Setback Act (BRSA). Unrestricted bluff development (UBD) ranges from the construction of roads, structures and stairways to devegetation of forested areas. These activities often destabilize the bluff, and can initiate or accelerate the bluff recession.

Cumulative and Secondary Impacts

Three issues will be addressed under the Cumulative Impacts enhancement area for Pennsylvania; finding dredge spoil disposal sites in Bucks County, assessing impacts to Presque Isle Bay from increasing boater use, and mitigating nonpoint source pollution impacts on water quality. There are few remaining places to locate dredge spoils. Some previously used sites have been eliminated as a result of the spoils creating wetlands, or the spoils were contaminated. Pennsylvania's Department of Environmental Resources (DER) may therefore, be faced with either not allowing the dredging to take place, which would severely restrict commerce in this area, or resort to bucket dredging, which is environmentally more damaging and much more expensive.

Presque Isle Bay is a popular boating and recreation area, encompassing a 3,200 well-protected bay area, surrounded by five miles of shoreline. In the past years, the numbers of boats, slips, docks and marinas has significantly increased. DER is currently developing a Remedial Action Plan (RAP) to address water quality problems. Although the focus of RAP is to address land based sewage and contaminated sediment, it will not be addressing the impact of recreational boating on the Bay's water quality. A Boating Impacts Study is needed to complement the RAP and provide a missing link in addressing Bay water quality issues.

A final negative impact resulting from cumulative and secondary impacts is the degradation in coastal water quality, a result of nonpoint source water pollution. Unfortunately, no one has a clear idea as to precisely is directly attributable to these problems. Through the Coastal Nonpoint Pollution Control Program (CNCP/§6217) there needs to be identification of critical coastal areas most susceptible to water quality threats.

Public Access

The need for increased public access in both the Delaware Estuary and Lake Erie coastal zones remains high. Past CZM efforts have not met the demand and needs of the

public. The coastal zones are small geographic areas and do not always receive attention from other state public access providers. Therefore, the coastal program needs to take on a more proactive role as a public access facilitator to focus federal, state, local and private resources to provide more public access opportunities in both coastal zones.

State efforts will focus on the development of letters of agreement or memoranda of understanding with other access providers in response to the Governor's Executive Order that, "To the maximum extent permitted by law, all administrative departments, independent administrative boards and commissions, and other state agencies shall enforce and act consistently with the goals, policies, and objectives of the CZM Program."

Wetlands

Current regulations and Coastal Zone Management monitoring activities adequately protect and preserve Pennsylvania's coastal wetlands within the CZM boundaries. However, direct and significant impacts to coastal wetlands result from activities which occur in hydrologically connected waters/wetlands and surrounding uplands located beyond the current boundaries.

List of Pennsylvania §309 Projects for FY92 and FY 93

Cumulative and Secondary Impacts

PA (1) Presque Isle Bay Boating Impact Analysis, PSM, FY92, \$100,000

Coastal Hazards

PA (2) Bluff Recession and Setback Act (BRSA) Guidelines, WF, FY92/93 – \$11,900

PA (3) New Techniques of Measuring, Calculating, and Monitoring the Rate of Bluff Recession, WF, FY92-95 – \$98,650

PA (4) Amend the BRSA/Regulations and CZM Policy to Restrict Bluff Face Use, WF, FY93-95 – \$80,900

Wetlands

PA (5) CZM Boundary Change, WF, FY92/93 – \$50,000

A summary evaluation of each §309 project is attached.

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Title: PA (1) Presque Isle Bay Boating Impact Analysis, PSM, FY92, \$100,000

Project Description: Design a management plan to ensure that boating activity on Presque Isle Bay does not degrade its environmental resources.

Length of Project: 3 years (October 1, 1992 - September 30, 1995)

Project Benchmarks

FY92

- A study is completed which contains recommendations for improving environmental and social impacts created by recreational boating on Presque Isle Bay.

FY93

- Not on schedule but likely to be completed. Due to the delays in completing the FY92 project the PA Division of Coastal Programs has requested a time extension for the completion of the FY93 project until January 31, 1994.

FY94

- Due to begin October 1, 1994. Will most likely be delayed due to delays in completing previous project segments.

Project Results

- a) Proposed Program Change:* Off track but expected to be accomplished by September 30, 1995. Establish new state authorities/regulations concerning marine pumpout station placement and usage. Develop BMPs for boat fueling activities. Develop new MOUs with Erie City, PFBC, and the USCG concerning use restrictions on Presque Isle Bay. (L, MOU)
- b) Summary of Results/Enhancement:* Results will not be available until the conclusion of the project.
- c) Project Products to Date*
 - 1) A study, documenting present and future environmental and social impacts that recreational boating is having on Presque Isle Bay, has been completed. This study includes a determination of the capacity usage the Bay can support, what restrictions need to be placed on boating, how these restrictions should be applied, and who should be responsible for placing and enforcing these restrictions. A determination was also made as to how boating should be restricted to protect the environment and avoid boater conflict.
- d) Other Benefits:* None
- e) Unexpected Results:* None
- f) Impediments to Project Success:*
 - 1) Sample data was collected over too short a period of time in order to guarantee any accuracy of results.
- g) Was the project national/state/local in importance?* State and local importance.

Title: PA (2) Bluff Recession and Setback Act (BRSA) Guidelines, FY92-FY93,
\$11,900

Project Description: CZM will compile past legal interpretations to the BRSA, Rules and Regulations (PA Chapter 85), and field implementation policy decisions into a "guidelines" document. Copies of the document will be given to each municipality with the original document and amending capability located in the CZM office. As part of this process, CZM will ask legal to interpret sections of the BRSA regulations that are not clear and require legal guidance (i.e., aspects of the variance and substantial improvement language relating to restoring fire damaged structures currently located inside the minimum bluff setback distance).

Length of Project: FY92 scheduled for 1 year (10/1/92-9/30/93)
*Extension until 9/30/94

FY93 scheduled for 1 year (10/1/93-9/30/94)
*Extension until March 30, 1995

Project Benchmarks

FY92 (Revised)

- Review CZM files to locate past legal interpretations and field implementation policy decisions.
- Seek legal review and incorporate comments.
- Incorporate final comments, complete an additional legal review and distribute the final document to the Erie County municipalities with bluff setback ordinances.

FY93

- Amend the Coastal Hazards Policy (I-A.1) to include the guidelines.
- Complete the standard RPI process, general advertisement and circulation for comment to the public, state and federal agencies.

NOTE: The FY92 schedule varies from the original in that we have deemed public involvement inappropriate since the document is a compilation of internal policy decision and legal interpretations.

Project Completion Status

FY92: Not on schedule but still likely to be completed.

FY93: Not on schedule but still likely to be completed.

Project Results

- a) ***Proposed Program Change:*** Expected to be accomplished by March 30, 1995.
To amend the Coastal Hazards Policy (I-A.1) to include the newly revised guidelines.
(RR)
- b) ***Summary or Results/Enhancement:*** This task represents the creation of new guidelines to provide specific interpretations of an enforceable policy (for local government use). The guidelines will also result in meaningful improvements in coastal resource management.
- c) ***Project Products to Date:*** Draft guidelines document.

- d) *Other Benefits:* This task provides the means for legal interpretations and internal field implementation policy decisions to be put in the hands of those needing them. This information is necessary for the proper implementation of the municipal bluff setback ordinances. By creating a compilation of existing and proposed legal interpretations of the BRSA and field implementation decisions into a guidelines document for CZM and municipal use, proper implementation of the BRSA, regulations, and local ordinances will be improved. Also, as the regulations are interpreted in the future, the interpretations will be reviewed with the municipalities and incorporated into the guidelines document to be sent to the municipalities for their future reference.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Limited staff time to complete this task.
- g) *Was the project national/state/local in importance?* Basically of local importance, since it will provide for the proper implementation of the municipal bluff setback ordinances. It will also prove to be of importance at the state level in that the document will provide for consistent oversight and implementation of the BRSA.

Title: PA (3) New Techniques of Measuring, Calculating, and Monitoring the Rate of Bluff Recession, FY92-FY95, \$98,650

Project Description: Research was conducted into new or better ways of measuring, calculating, and monitoring the rate of bluff recession. An extensive library search was conducted and state and federal agencies were contacted for current information on lake bluff monitoring (i.e., Ohio's new bluff setback regulations and FEMA's new study of Illinois bluff recession).

Length of Project: Scheduled for 1 year (10/1/92 - 9/30/93)
*Extended until 12/31/94

Project Benchmarks

FY92

- Selection of a contractor to complete the library search for techniques of measuring, monitoring, and calculating and rate of bluff recession.
- Contact with state and federal agencies.
- Review Shoreline Erosion and Flooding - Erie County (the primary support document for the BRSA and which provides the basis for designating BRHAs (bluff recession hazard area) and determining the rate of bluff recession for each township) to determine where to amend the document to incorporate the new technique(s).

FY93 (Revised)

- Amend Shoreline Erosion and Flooding - Erie County.
- Begin to remeasure the rate of bluff recession using the amended process.

NOTE: Shoreline Erosion and Flooding - Erie County was not amended this year and is scheduled to be amended in FY94. It was determined that it is necessary to test and analyze the recommended techniques (s) before amending the document. Bluff recession measurements are currently being compiled in FY93 utilizing the recommended technique(s) from the FY92 study.

FY94 (Revised)

- Amend Shoreline Erosion and Flooding - Erie County to incorporate the recommended technique(s).
- Complete remeasuring recession rates if not completed in FY93.

NOTE: The original plan was to amend local ordinances, the BRSA and regulations to incorporate the changed recession rates. However, it was determined that this was not the year for it in project development.

FY95 (Revised)

- Amend local ordinances and BRSA regulations
- Work with municipalities to adopt new recession rates and BRHA designations.

Project Completion Status

FY92: Completed.

FY93: On schedule.

FY94: On schedule.

FY95: On schedule.

Project Results

- a) *Proposed Program Change:* Expected to be accomplished FY94. CZM staff will concentrate on researching new or better ways of measuring, calculating, and monitoring the rate of bluff recession. Based on the results of that study, staff will test and analyze the new recommended techniques and move toward amending the existing local bluff setback ordinances and the BRSA and regulations FY94. (RR)
- b) *Summary or Results/Enhancement:* This task will improve the accuracy of bluff recession rates. These more accurate recession rates will assure that new structures are placed safely within the BRHAs and improvement to threatened structures are limited.
- c) *Project Products to Date:* Completed study recommending new techniques of measuring the rate of bluff recession.
- d) *Other Benefits:* Using newer and updated methods of obtaining rates of bluff recession will result in more accurate predictions. These new rates will be incorporated into the local bluff setback ordinances. With better accuracy, it is likely that the bluff recession rates will increase. If this occurs, it will expand the BRHA and the minimum setbacks for residential, commercial and industrial structures. Overall, new structures placed in the BRHA will provide better protection from the hazards of bluff recession. Also, CZM will use the new rates to accurately and safely relocate structures via the NFIP which is a long-term savings for the federal government because of less repeat insurance claims from improperly relocated structures.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* None
- g) *Was the project national/state/local in importance?* The project is basically of state importance. However, municipalities and bluff property owners will be able to benefit from the data we will be able to produce with the newer techniques of monitoring bluff recession.

Title: PA (4) Amend the BRSA/Regulations and CZM Policy to Restrict Bluff Face Use, FY93-FY95, \$80,900

Project Description: This task will involve pre-amendment review of the amending process and the regulations (potentially the Act) to determine how and where to amend to restrict development on the bluff face. In addition, research and testing will be conducted to provide information on better and safer uses of the bluff face. By doing research into new methods of traversing and using the bluff face, new information can be given to property owners to help them make better decisions on activities that affect their bluff properties.

Length of Project: FY93 scheduled for 1 year (10/1/93-9/30/94)
*Extended until 12/31/94

Project Benchmarks

FY93 (Revised)

- Review amendment process to amend the regulations to restrict development on the bluff face.
- Select contractor to conduct research into optimum stairway design for traversing the bluff face without causing bluff instability.

NOTE: The original plan was to amend the BRSA to include bluff face restrictions. After thorough review, it was determined that the statute amending process will take more time than originally projected.

FY94 (Revised)

- Complete the amendment of the BRSA regulations to restrict development on the bluff face.

NOTE: The original plan was to initiate stairway construction based on the research conducted in FY93.

FY95 (Revised)

- Change local ordinances to reflect regulatory changes.
- Amend the CHA Policy to reflect changes in the regulations.
- Award a construction contract to complete construction of the stairway designs developed in the FY93 project.
- Begin exploring scheduling and timing associated with developing technical assistance packages to advise municipalities via regulatory requirements of the amended regulations on roads, stairways, home construction and forest management.

NOTE: The original intent was to at this time was to monitor the construction project and create technical assistance packages. However, due to lack of funds, construction was postponed from FY94 to FY95.

Project Completion Status

FY93: On schedule.

FY94: On schedule.

FY95: On schedule.

Project Results

- a) *Proposed Program Change:* Expected to be accomplished by FY95. Amend existing BRSA regulations to restrict the use on the bluff face.
- b) *Summary or Results/Enhancements:* The result of this project will be that the protection of the bluff area will be extended lakeward of the bluff crest to the ordinary high water mark (OHWM) at the base of the bluff. This amendment will regulate new structures and substantial improvements of these structures located between the OHWM and the bluff crest (bluff face), and other uses which affect the stability of the bluff face. (RR)
- c) *Project Products to Date:* Currently under contract to design two stairways for construction along PA's bluffs along Lake Erie.
CZM staff is currently in the process of reviewing the amendment process and discussing with legal staff the necessity of amending the Act versus the regulations.
- d) *Other Benefits:* Research and testing of uses of the bluff face (structures, stairways, roads and devegetation) will lessen many negative influences on bluff stability. This will be accomplished by providing timely and accurate information and assistance to eliminate many poorly designed construction and man-induced impacts to the bluff. This effort will also direct research into better and safer techniques of traversing and using the bluff face. These proper methods/techniques to traverse/use the bluff face will provide safe and lasting structures on the bluff face that will not initiate or accelerate bluff recession. In addition, by restricting uses on the bluff face (new home construction and other uses that may cause or accelerate bluff recession) fewer homes will be threatened by bluff recession and fewer claims will be filed under the NFIP. This will provide a long-term savings to the federal government.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Lack of funding to complete construction as scheduled.
- g) *Was the project national/state/local in importance?* Again, this project can be considered two-fold. It definitely benefits the property owner in providing safety and advice. It also gives PA the research to make decisions and to advise property owners.

Title: PA (5) CZM Boundary Change, FY92 and FY93, \$50,000

Project Description: The purpose of this task is to analyze all available information and determine a process to expand the CZM boundary limits. CZM will complete a thorough analysis of boundary, hydrologic, topographic, geologic, and political boundary maps. Other resource documents will be analyzed along with conducting field work in the affected areas to determine how far the boundaries must extend in order to include all or as many wetlands hydrologically connected to coastal wetlands. Following the analysis of existing data (maps, reports, etc.), draft boundary change proposals for both coastal zones will be developed.

Length of Project: Scheduled for 1 year (10/1/92 - 9/30/93)

*Extension until 9/30/93 for FY92 and 12/31/94 for FY93

Project Benchmarks

FY92 (Revised)

- Analyze all existing data, maps, and reports that may have relevance to how hydrologically connected wetlands can be included within CZM boundaries.
- A Boundary Expansion Study Final Report was done December 1993. Alternative boundaries were recommended for each coastal zone.

FY93 (Revised)

- Analyze resources available in watersheds within the DECZ and recommend boundary expansion limits. Also, if other areas are acceptable for future expansion based on watershed mitigation criteria, a schedule for boundary expansion changes action will be proposed.

NOTE: The FY92 schedule varies from the original in that a boundary change proposal for both coastal zones was not done. The FY93 schedule varies from the original in that available resources in the DECZ will be analyzed and boundary expansion limits recommended.

Project Completion Status

FY92: Completed.

FY93: On schedule.

Project Results

a) Proposed Program Change: Not on schedule, but still likely to be completed. To change the Pennsylvania CZM boundaries to include hydrologically-connected wetlands. CZM boundaries will be expanded in Erie, Delaware, Philadelphia, and Bucks counties. Expected to be accomplished by 12/31/94. (CZB)

b) Summary or Results/Enhancement: This task will focus on individual watersheds for expanding the CZM boundary in the DECZ. This approach will provide a less expansive coastal boundary change, but will encompass hydrologically connected wetlands and will provide much needed areas for keeping mitigated coastal wetlands within the management boundaries of the coastal zone program.

c) Project Products to Date: Boundary Expansion Study - Final Report sent to OCRM.

d) Other Benefits: This task will result in a change to Pennsylvania CZM boundaries in the DECZ. CZM's wetland enhancement objective is to protect, restore, or enhance existing coastal wetlands. By expanding the DECZ boundary to include

hydrologically connected wetlands, CZM will increase the number of wetlands they currently protect. Also, by expanding the boundaries, acceptable mitigation areas within the DECZ boundary will increase.

- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Limited staff time to complete this task.
- g) *Was the project national/state/local in importance?* This project is of both local and state importance. Hydrologically connected wetlands will become part of the coastal zone boundaries allowing for more coastal protection and management. Also, mitigated coastal wetlands within the management boundaries will be replaced in the coastal zone and will remain within the existing state boundary.

PUERTO RICO

The §309 Priority Enhancement Needs identified by Puerto Rico cover three issues:

- Wetlands
- Coastal Hazards
- Cumulative and Secondary Impacts

The problems identified in the §309 priority enhancement issues areas are summarized as follows:

Wetlands

Coastal wetlands are not protected by a comprehensive public policy and an enforceable regulation. Jurisdiction is shared by three agencies. As a result, many wetland areas are permitted to be used for conflicting purposes. An interagency agreement will be sought on this matter so as to prepare an appropriate policy and related regulation. The DNR GIS will be improved to include all available relevant data concerning wetlands.

Coastal Hazards

Although an exemplary program of hazard mitigation activities is being implemented, two major areas are yet to be considered: erosion and the potential of sea level rise as they relate to development. In addition, a policy on mitigation planning prior to reconstruction will be explored.

Cumulative and Secondary Impacts

Several agencies are involved in the review of development proposals. None of them now conducts an analysis of cumulative and secondary impacts on coastal or other resources as a regular aspect of project review. This leads to problems that arise after development occurs. PRCMP will seek to awaken an awareness of the issues and to negotiate workable interagency agreements to assure that every project receives adequate attention.

List of Puerto Rico §309 Projects for FY 1993

Wetlands

PR (1) Wetlands Regulation, WF, FY93 -- \$52,250

Coastal Hazards

PR (2) Coastal Hazards, WF, FY93 -- \$28,000

Cumulative and Secondary Impacts

PR (3) Impact Analysis, WF, FY93 -- \$26,750

A summary evaluation of each §309 project is attached.

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Title: PR (1) Wetlands Regulation, WF, FY93 -- \$52,250

Project Description: The purpose of this project is to adopt a wetlands policy and implement regulations for the commonwealth of Puerto Rico. A wetlands data base will be established utilizing aerial photos, *National Wetlands Inventory*, and available digitized data. Agencies with jurisdiction will work toward the development of a consistent wetlands policy (PB, EQB, DNR).

Length of Project: 2 years (October 1, 1993 to September 30, 1995)

Project Benchmarks

FY93

- staff hired - natural resource specialist and a secretary
- two wetlands protection public workshops were held
- interagency agreement signed by the three lead agencies (PB, EQB, DNR)
- wetlands advisory council organized

Project Completion Status

FY92 Work - N/A

FY93 Work - on schedule

Project Results

- a) *Proposed Program Change:* Development of a wetlands policy, implementation of regulations to implement wetlands policy. (L)
- b) *Summary of Results/Enhancement:* Workshops held; proceedings ready for publication; interagency agreement accepted and signed to support the existing goals and objectives for the protection of wetlands and to develop a state policy for the protection and restoration of wetlands.
- c) *Project Products To Date:*
 - Interagency agreement
 - Proceedings of workshop
- d) *Other Benefits:* Increased awareness of wetlands importance
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* None
- g) *Is the Project of National/State/Local Importance?* State

Title: PR (2) Coastal Hazards, WF, FY93 -- \$28,000

Project Description: The purpose of this project is to evaluate existing coastal erosion data as a basis for modifying Planning Board maps for the coastal zone and flood prone areas.

Length of Project: 2 years (October 1, 1993 to September 30, 1994)

Project Benchmarks

FY93

- UPR/DMS staff scanned coastal photography for 1936-1978
- New color maps being prepared

Project Completion Status

FY93 Not on schedule, but will still be completed.

Project Results

- a) *Proposed Program Change:* Not on schedule, but likely to be completed. New regulation for coastal development related to erosion rates. (L)
- b) *Summary of Results/Enhancement:* None
- c) *Project Products To Date:* None
- d) *Other Benefits:* None
- e) *Unexpected Results:* Coastal erosion is much more complex than anticipated; simple comparison of aerial photography does not cover wave dynamics, bathymetry, etc.
- f) *Impediments to Project Success:* Start up delayed because of non-delivery of basic document from USGS (Open File Report 93-574) until June 1994; maps not yet delivered to consultants as promised.
- g) *Is the Project of National/State/Local Importance?* National/state

Title: PR (3) Impact Analysis, WF, FY93 -- \$26,750

Project Description: The purpose of this project is to pursue a policy change which would require the review of cumulative and secondary impacts on coastal resources as a basic element of the project review process.

Length of Project: 2 years (October 1, 1993 to September 30, 1995)

Project Benchmarks

FY93

- staff hired
- interagency meeting held

Project Completion Status

On schedule.

Project Results

- a) *Proposed Program Change:* Develop and implement a requirement for standard evaluation of all projects with regard to cumulative and secondary impacts. (PG)
- b) *Summary of Results/Enhancement:* Interagency agreement signed May 1994 on need for CSI (PB, EQB, RPA, DNER) to be incorporated into review process.
- c) *Project Products To Date:* None
- d) *Other Benefits:* About 30 bibliographic documents obtained and evaluated
- e) *Unexpected Results:* Increased awareness of complexity of issue
- f) *Impediments to Project Success:* Lack of agreement among participants on scope and design of GIS and its contents.
 - Lack of appropriate information of recent date
 - Lack of responses to inquiries and requests for assistance or information
 - Need for more detailed GIS training for technicians who will use it for evaluation
- g) *Is the Project of National/State/Local Importance?* National/state

RHODE ISLAND

The §309 priority enhancement needs identified by Rhode Island cover three issues:

- Wetlands
- Public Access.
- Special Area Management Plans (SAMPs)
- Cumulative and Secondary Impacts

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Wetlands

Rhode Island has been effective in the protection of coastal wetland complexes, but the state lacks an adequate inventory of coastal wetlands and associated critical habitats. The protection of salt marshes and freshwater or brackish wetlands contiguous to salt marshes is strong and comprehensive, but little coordination exists between the Rhode Island Coastal Resources Management Council and The Rhode Island Department of Environmental Management for the formal and joint review of these wetlands. In addition, other critical habitat complexes exist that do not currently receive adequate regulatory protection. While the protection of salt marshes and contiguous brackish and/or freshwater wetlands has been emphasized by the Coastal Resources Management Council (CRMC), the protection of tidal flats, submerged aquatic vegetation (SAV) and other upland and sub-tidal habitats has not received the emphasis it deserves. Finally, mitigation of wetland alteration is usually informally implemented through Assent (permit) condition, and is not based on formal policies nor standards. The CRMC needs to set up a formal mitigation policy for wetland and critical habitat alterations associated with priority uses in appropriate areas.

Public Access

Access to and along the shore in Rhode Island is a common expectation and legal right guaranteed by the state's constitution. Unfortunately, the ability to exercise this right has gradually been eroded by both the cumulative and secondary impacts of development in Rhode Island's coastal zone. A recent landmark Rhode Island Supreme Court decision in Hall v. Nascimento has brought the issue of public access and control of filled tidal lands to the center of both the public's and the Rhode Island General Assembly's attention. The decision affirmed that the public trust rights to filled tidal lands have not been lost. Thus, the State of Rhode Island has the responsibility to manage filled tidal lands for the benefit of the public. One of the negative aspects of the decision is that it has cast a cloud on the title of all filled tidal lands. While this cloud does not jeopardize anyone's private property rights, it is reason for the General Assembly to act expeditiously.

Special Area Management

While Special Area Management Planning (SAMP) has been a very successful and integral element to the Rhode Island Coastal Resources Management Program (RICRMP) since 1983, and continues to be used as a tool for addressing the physical and/or organizational problems surrounding a threatened resource, there are some program changes and new initiatives that can be made to improve these planning efforts. Better implementation and enforcement of SAMPs need enforceable policies and program changes. Similarly, Memorandums of Understanding between applicable

federal, state and local authorities over the SAMP implementation needs to be instituted. This would ensure better coordination and consistency being applied to the implementation of a SAMP. Also, in order to better assist the Coastal Resources Management Council, (CRMC) in carrying out specific recommendations of a SAMP, and to provide a clear set of guidelines and criteria for all parties involved in future development within SAMP boundaries, all technical and design standards need to be put into an easily available format. The SAMP format may need to be expanded to explicitly emphasize watershed boundaries and resource-based considerations. Finally, new SAMP initiatives need to be undertaken, as areas such as the Little Compton Salt Ponds and Block Island have been identified as excellent resource areas for SAMP initiatives.

List of (State) §309 Projects for FY92 and FY 93

Wetlands

- RI (1) Wetlands Memorandum of Agreement, WF, FY92--\$67,000
- RI (2) Formal Wetlands Mitigation Policies, PSM, FY92--\$31,000
- RI (3) Submerged Tidal Lands Leasing Program, PSM, FY92--\$56,000

Public Access

- RI (4) Improve Public Access Through the Regulatory Process, WF, FY93--\$20,099
- RI (5) Memorandum of Agreement for Public Access, WF, FY93--\$20,100

Special Area Management Planning

- RI (6) Improve Implementation of Harbor Management Plans, WF, FY93--\$5,025.12
- RI (7) Expand the CRMC's Harbor Management Program, WF, FY93--\$15,075.37
- RI (8) Improve Implementation of the CRMC's SAM Plans, WF, FY93--\$5,025.12
- RI (9) Develop a SAM plan for Rhode Island's Poorly Flushed Estuaries, Barrier Beaches, and Critical Coastal Areas, WF, FY93--\$15,075.39
- RI (10) Revised Barrier Beach Protection Policies for Salt Pond SAMP, PSM, FY93--\$65,000

A summary evaluation of each §309 project is attached.

Title: RI (1) Wetlands Memorandum of Agreement, WF, FY92--\$67,000

Project Description: Develop a formal interagency Memorandum of Agreement (MOA) between the Department of Environmental Management (the water quality agency) and the Coastal Resources Management Council to coordinate permit review processes of the two agencies for projects which fall within both salt marshes and adjacent freshwater wetlands jurisdictions and require permits from both agencies.

Length of Project: 1 year (July 1, 1992 - June 30, 1993)

*1 year no cost grant extension approved through June 1994

Project Benchmarks

FY92, FY93

- none (designed as a one year project with signed MOU as final product)

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

Project Results

- Proposed Program Change:* Formally abandoned. Signed MOA programs being made and new legislation is expected by June 1995.
- Summary of Results/Enhancement:* Interagency staff meetings to clarify protection of freshwater wetlands contiguous to coastal waters.
- Project Products to Date:*
 - 1) Draft Memorandum of Agreement
 - 2) Maps of wetlands clearly define authority of DEM over freshwater wetlands versus CRMC over tidal wetlands.
- Other Benefits/Spin-off:* Interagency discussion.
- Unexpected Results:* None.
- Impediments to Project Success:* 1) Department of Environmental Management (DEM) engaged in rewriting wetland regulations and unwilling to coordinate with Rhode Island Coastal Resources Management Council (RICRMC) on signing formal MOA. OCRM requested that RICRMC conduct this project as a §309 project. RICRMP has done all it can on project by preparing draft MOA and cannot force the DEM to sign agreement. When state CZM programs are asked to develop new interagency agreements, the success of the project must take into account the willingness of other state agencies to participate and follow-through.
- Was the project national/state/local in importance, and why?* No. Unforeseen public opposition to new DEM wetland regulations took priority over this.

Title: RI (2) Formal Wetlands Mitigation Policies, PSM, FY92--\$31,000

Project Description: Develop formal policies for wetlands mitigation, resulting in a consistent and coordinated effort for restoration of wetlands and critical habitats as part of permit process..

Length of Project: 1 year (July 1, 1992 - June 30, 1993)
*3-month no cost grant extension approved

Project Benchmarks

FY92

- not applicable

Project Completion Status

FY92 Work - Completed

Project Results

- a) *Proposed Program Change:* Accomplished--This project resulted in new and amended regulations to the Rhode Island Coastal Resources Management Program (RICRMP) under Section 210.3 and 300.12. (RR)
- b) *Summary of Results/Enhancement:* Amended regulations formalize the existing wetlands regulatory process by creating formal mitigation standards and a specified procedure for project approvals. Rather than project approvals through a special exceptions process, the new regulations require each project to go through an approval process which includes development of a mitigation plan in compliance with mitigation standards
- c) *Project Products to Date:*
 - 1) New and Amended Regulations Section 210.3 and 300.12, RICRMP Regulations.
- d) *Other Benefits/Spin-off:* Enhanced coordination with Rhode Island State Department of Transportation regarding wetlands management.
- e) *Unexpected Results:* None.
- f) *Impediments to Project Success:* 1) The one-year limitation on weighted formula projects is unrealistic for projects whose end product is program changes (e.g., statutory or rule changes). Internal grant approval processes take one to three months. Legal public participation processes (notices, hearings, and agency action) take at least three months. This leaves an inadequate time span of six to eight months to research, draft and coordinate program changes.
- g) *Was the project national/state/local in importance, and why?* No

Title: RI (3) Submerged Tidal Lands Leasing Program, PSM, FY92--\$56,000

Project Description: Develop policies and a fee structure for public use of submerged tidal lands. This long-term program will utilize the fees from docks, marinas, and other in-water structures as a dedicated source of revenue to enforce submerged tidal land dock leases and improve public access. The project will also include public education and involvement through workshops, meetings, and brochures. A recent Rhode Island Supreme court decision affirmed public trust rights to filled tidal lands, giving the state the responsibility to manage and regulate all filled tidal lands. As a result the state decided to enhance its Submerged Tidal Lands leasing Program by developing state policies and lease fees for docks, marinas, and other in-water structures.

Length of Project: 1 year (July 1, 1992 - June 30, 1993)

1 year no cost grant extension approved through June 1994.

(Legal structure problems were uncovered which required that the state create a preliminary leasing process to register all (new and existing) docking facilities prior to establishing an annual submerged state lands user fee.)

Project Benchmarks

FY92

- preliminary submerged land leasing program

FY93

- submerged lands leasing rules, regulations and fee structure

Are these benchmarks under the correct fiscal years?

Project Completion Status:

FY92 Work - Completed

FY93 Work - Completed

Project Results

- a) Proposed Program Change:* Accomplished--Rules, Regulations and Submerged Lands Leasing Fee covering both registration of and annual fees for in-water structures that use submerged tidal lands. This is Phase 1 of the leasing program. (RR)
- b) Summary of Results/Enhancement:* New program enhances public access by establishing a revenue source for improving access. Also improves regulation of docking and other in-water structures and their cumulative and secondary impacts.
- c) Project Products to Date:*
 - 1) RICRMC Revised Submerged Tidal Lands Regulations for leasing docks, marinas and other in water structures..
- d) Other Benefits/Spin-off:* This project has improved the identification and registration of docking facilities through greater enforcement, permit compliance and awareness of harbor permit requirements.
- e) Unexpected Results:* Found the need to develop an administrative mechanism to buy submerged tidal land user fee plates to attach to docking facilities, secured reprogrammed §306 funds for this project.

f) *Impediments to Project Success:* 1) Development and implementation of a submerged tidal lands fee system involves multiple steps. Although rules and regulations have been adopted, implementation fees for marinas and moorings have yet to be set. Likewise, capturing additional uses of submerged tidal lands such as pipelines and bridges has yet to be developed. Federal CZM funding for implementation of this new complex and long-term program are not provided for in the §309 grants program.

g) *Was the project national/state/local in importance, and why?* No

Title: RI (4) Improve Public Access Through the Regulatory Process, WF, FY93--
\$20,099

Project Description: Improve public access through the regulatory, statutory, and legal system. This project is composed of three sub-tasks which result in two types of program changes: 1) new regulations for the RICRMP and 2) new legislation. The major work products include: 1) various public access regulations for different sections of the RICRMP as well as an entirely new public access section which includes the ROW (Right of Way) Development Program; 2) changes to the Harbor management guidelines related to the ROW Development Program; 3) guidance materials for permit applicants and local officials related to the implementation of the ROW Development Program; 4) new legislation and public outreach materials addressing liability at public access sites; and 5) public outreach and education materials for the ROW Development Program.

Length of Project: 1 year (July 1, 1992 to December 30, 1994)
* 1 year no-cost extension

Project Benchmarks

FY93

- 1) New Public Access Section of the RICRMP
 - draft regulation changes
 - review by CRMC Policy and Planning Subcommittee
 - public notice and hearing
- 2) ROW Development Program for Municipally Owned ROWs
 - draft regulation changes and guidance materials
 - review by CRMC Policy and Planning Subcommittee
 - public notice and hearing
- 3) New Legislation to Address Liability Questions
 - draft regulation changes and guidance materials
 - review by CRMC Policy and Planning Subcommittee
 - Legislation submitted to the Rhode Island General Assembly

Project Completion Status:

FY93 Work

On schedule.

Project Results

- a) *Proposed Program Change:* On tract and expected to be accomplished by 1995.
- b) *Summary of Results/Enhancement:*
- c) *Project Products to Date:*
- d) *Other Benefits/Spin-off:* Liability legislation
- e) *Unexpected Results:* Use reprogrammed §306 to produce guide: "Municipal Officials - Citizens' Guide to Assisting in CRMC Right-of-Way Designation Process"
- f) *Impediments to Project Success:*
- g) *Was the project national/state/local in importance, and why?* Model state legislation extending liability protection to private landowners over whose property the CRMC designates a right-of-way.

Title: RI (5) Memorandum of Agreement for Public Access, WF, FY93--\$20,100

Project Description: Development of a Memorandum of Agreement with the Rhode Island Department of Environmental Management (RIDEM) for public access.

Length of Project: 1 year (July 1, 1993 to June 30, 1994)

Project Benchmarks:

FY93

- additional public and/or State Agency Workshop
- draft Memorandum of Agreement
- draft MOA reviewed by CRMC ROW (Right of Way) Subcommittee
- Draft MOA submitted to RIDEM for comment

Project Completion Status

FY93 Work - Abandoned

FY94 Work - On schedule.

Project Results

- a) *Proposed Program Change:* Will not be accomplished. DEM gave up on public access program so no MOU.
- b) *Summary of Results/Enhancement:* R.I. CRMP current ROW designation program is the R.I. public access program that includes signs, contracts with municipalities for long-term maintenance.
- c) *Project Products to Date:* None
- d) *Other Benefits/Spin-off:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Lack of funding resulted in DEM giving up their part of the program.
- g) *Was the project national/state/local in importance, and why?* No

Title: RI (6) Improve Implementation of Harbor Management Plans, WF, FY93--
\$5,025.12

Project Description: Improve the enforceability and implementation of local harbor management plans by completing five sub-tasks, listed as follows: 1) Develop a Harbor Management Section for the Rhode Island Coastal Resources Management Program (RICRMP) 2) Draft Harbor Management Legislation to Improve Enforcement, 3) Develop Greater Incentives for Municipalities to Prepare, Revise and Implement HMPs, 4) Develop a Memorandum or Understanding (MOU) to coordinate Comprehensive Land Use and Harbor Management Programs, 5) Incorporate Harbor Management Plans (HMPs), Comprehensive Land Use Plans, and Relevant Ordinances into the Coastal Resources Management Council's (CRMC's) federal CZM Program. The latter two tasks will not be started until FY94. The products of these tasks will be a new section of the RICRMP, new Harbor Management legislation, new Harbor Management Guidelines, and amendments to the federal program consisting of local plans and ordinances.

Length of Project: 1 year (July 1993 to December 1994)
*6-month no-cost extension

Project Benchmarks

FY93

- 1) Develop a Harbor Management Section for the Rhode Island Coastal Resources Management Program (RICRMP)
 - draft section for the RICRMP
 - review by CRMC Policy and Planning Subcommittee
 - public notice and hearing
- 2) Draft Harbor Management Legislation to Improve Enforcement,
 - draft legislation
 - review by CRMC Policy and Planning Subcommittee
 - draft legislation submitted to Rhode Island General Assembly
- 3) Develop Greater Incentives for Municipalities to Prepare, Revise and Implement HMPs
 - policy and regulation changes that develop incentives where possible and as needed

FY94

- 4) Develop a Memorandum or Understanding (MOU) to coordinate Comprehensive Land Use and Harbor Management Programs,
- 5) Incorporate Harbor Management Plans (HMPs), Comprehensive Land Use Plans, and Relevant Ordinances into the Coastal Resources Management Council's (CRMC's) federal CZM Program.

Project Completion Status

FY93 Work - On schedule.

Project Results

- a) *Proposed Program Change:* On track and expected to be accomplished.
 - 1) New legislation of reciprocal enforcement of HMPs by adjacent municipalities.
 - 2) Legislation requiring towns to enforce Harbor Plans
 - 3) Revised section on HMP in R.I. CRMP.
- b) *Summary of Results/Enhancement:* Coordination with State Planning Office to require HMPs to be part of municipal comprehensive plans.
- c) *Project Products to Date:* Drafts and final reports prepared.

- d) *Other Benefits/Spin-off:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* Not enough staff.
- g) *Was the project national/state/local in importance, and why?* Provides a national model for the many states who do not yet require municipal harbor management plans. Presentations have been made at CZ'95 and Canada Coastal Zone 1994 Conferences.

Title: RI (7) Expand the CRMC's Harbor Management Program, WF, FY93--
\$15,075.37

Project Description: This project involves two sub-tasks. The first--Develop Revised Harbor Management Guidelines--involves revising the CRMC's *Guidelines for the Development of Municipal Harbor Management Plans* to address new issues and provide greater technical assistance to communities on how to address different issues. In order to enhance the success of this sub-task, CRMC will work closely with the town planners. The second sub-task--Develop Harbor Management Legislation which Requires HMPs--involves developing legislation what will require each municipality to develop local harbor management plans. This legislation will also create a review process whereby the CRMC will review the implementation of these HMPs.

Length of Project: 1 year (July 1993 to December 1994)

*6-month no-cost extension

Project Benchmarks

FY93

- 1) Develop Revised Harbor Management Guidelines
 - draft revised HMP Guidelines
 - review by CRMC Policy and Planning Subcommittee
 - Public Notice and Hearing
- 2) Develop Harbor Management Legislation which Requires HMPs
 - draft legislation
 - review by CRMC Policy and Planning Subcommittee
 - draft Legislation submitted to Rhode Island General Assembly

Project Completion Status

FY93 Work - On schedule

Project Results

- a) *Proposed Program Change:* On track and expected to be accomplished by December 1994.
 - 1) Revised guidelines
 - 2) New legislation requiring towns to develop and adopt HMPs
- b) *Summary of Results/Enhancement:* None yet.
- c) *Project Products to Date:* Drafts
- d) *Other Benefits/Spin-off:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* None
- g) *Was the project national/state/local in importance, and why?* No

**Title: RI (8) Improve Implementation of the CRMC's SAM Plans, WF, FY93--
\$5,025.12**

Project Description: This project is designed to improve the enforceability and implementation of the CRMC's special area management plans and consists of three sub-tasks which are described as follows: 1) Develop a SAM Plan Section of the RICRMP--amending the RICRMP to include a new section which defines the standards, scope, and regulatory implications of the CRMC's SAM plans. This new section of the RICRMP will explain in greater detail how the enforceable policies of the SAM plans supplement the enforceable policies of the RICRMP. The second and third sub-tasks: 2) Develop Regulatory Supplement for the Providence Harbor and Pawcatuck River and Little Narragansett Bay SAM Plans, and 3) Incorporate local HMPs and Comprehensive Plans with relevant local ordinances and state laws into the RICRMP, will not begin until after FY93.

Length of Project: 2 years (July 1992 to December 1994)
*6-month no-cost extension

Project Benchmarks

FY93

- 1) Develop a SAM Plan Section of the RICRMP
 - draft SAM plan section for RICRMP
 - review by CRMC Policy and Planning Subcommittee
 - public notice and hearing

FY94

- 2) Develop Regulatory Supplement for the Providence Harbor and Pawcatuck River and Little Narragansett Bay SAM Plans

FY95

- 3) Incorporate local HMPs and Comprehensive Plans with relevant local ordinances and state laws into the RICRMP

Project Completion Status

FY93 Work - On schedule.

Project Results

a) Proposed Program Change: Not on schedule.

- 1) R.I. CRMP section on SAMPs will be put to public notice for formal adoption.
- 2) Supplement to Providence and Pawcatuck SAMPs in process.

b) Summary of Results/Enhancement:

c) Project Products to Date: None yet.

d) Other Benefits/Spin-off: None yet.

e) Unexpected Results: None yet.

f) Impediments to Project Success: Loss of staff.

g) Was the project national/state/local in importance, and why? R.I. SAMPs are national model for integrated coastal resource management and continue to be improved and employed successfully in Rhode Island.

Title: RI (9) Develop a SAM plan for Rhode Island's Poorly Flushed Estuaries, Barrier Beaches, and Critical Coastal Areas, WF, FY93--\$15,075.39

Project Description: This project involves revising the Salt Ponds and Narrow River SAM plans as a new *SAM Plan for Rhode Island's Poorly Flushed Estuaries, Barrier Beaches, and Critical Coastal Areas*. This project consists of five sub-tasks. 1) Assess the implementation of the Salt Ponds and Narrow River SAM Plans--the assessment will rely on existing data, interviews with state agency personnel, local governmental officials, University of Rhode Island staff and faculty, environmental groups, and the public. Focus groups will be used instead of large advisory committees. This assessment will review the implementation of these plans and identify areas where improvements are recommended. 2) Develop Chapters of the New SAM Plan for Rhode Island's Poorly Flushed Estuaries, Barrier Beaches, and Critical Coastal Areas--Based on the assessment of the Salt Ponds and Narrow River SAM plans' implementation, these plans will be revised as a new *SAM Plan for Rhode Island's Poorly Flushed Estuaries, Barrier Beaches, and Critical Coastal Areas*-. The new SAM plan will be developed as a series of chapters that contain new and revised resource protection policies, standards, and prohibitions. It will also contain recommendations to federal, state and local officials. Each chapter will be reviewed by various state agencies, each of the focus groups, and the public prior to its inclusion in the final draft of the new SAM plan. The third, fourth and fifth sub-tasks do not begin until after FY93 and are titled as follows: 3) Review and Modify Existing Boundaries Contained in the Salt Ponds and Narrow River SAM Plans as Needed. 4) Amend Comprehensive Land Use and Harbor Management Plans and Appropriate Ordinances into the CRMC's Federal CZM Program, 5) Develop MOUs to enhance the New SAM Plan's Implementation.

Length of Project: 3 years (July 1993 to June 1996)

Project Benchmarks

FY93

- 1) Assess the implementation of the Salt Ponds and Narrow River SAM Plans
 - draft Assessment report of the Salt Ponds and Narrow River SAM plans Review by CRMC Policy and Planning Subcommittee
 - review by CRMC Policy and Planning Subcommittee
 - review by Focus Groups
 - Final Assessment Report
- 2) Develop Chapters of the New SAM Plan for Rhode Island's Poorly Flushed Estuaries, Barrier Beaches, and Critical Coastal Areas
 - draft chapters of Revised SAM Plan
 - review by CRMC Policy and Planning Subcommittee
 - Review by Focus Groups and State Agency Officials
 - draft of New SAM plan
 - public notice and hearing

FY94

- 1) Assess the implementation of the Salt Ponds and Narrow River SAM Plans
- 2) Develop Chapters of the New SAM Plan for Rhode Island's Poorly Flushed Estuaries, Barrier Beaches, and Critical Coastal Areas
- 3) Review and Modify Existing Boundaries Contained in the Salt Ponds and Narrow River SAM Plans as Needed.

FY95

- 1) Amend Comprehensive Land Use and Harbor Management Plans and Appropriate Ordinances into the CRMC's Federal CZM Program
- 2) Develop MOUs to enhance the New SAM Plan's Implementation.

Project Completion Status

FY93 Work in progress.

FY94 Work in progress.

Project Results

a) *Proposed Program Change*: On track and expected to be accomplished by June 1996

b) *Summary of Results/Enhancement*: Too soon.

c) *Project Products to Date*: Too soon.

d) *Other Benefits/Spin-off*: Too soon.

e) *Unexpected Results*: Too soon.

f) *Impediments to Project Success*: Too soon.

g) *Was the project national/state/local in importance, and why?* Yes

Title: RI (10) Revised Barrier Beach Protection Policies for Salt Pond SAMP, PSM, FY93--\$65,000

Project Description: Recent research results regarding the geological processes of the barrier ecosystem are incorporated as new policy and regulatory language in the R.I. CRMP. New standards set for soft erosion mitigation. Headlands are linked to barriers in policy that fits the natural processes.

Length of Project: 1 year (July 1993 to December 1994
*6-month no-cost extension

Project Benchmarks

FY93

- Maps of shoreline change with updated erosion rates.
- Regulatory language revising definitions of barriers, headlands, dunes and construction setbacks according to erosion rates.

Project Completion Status

FY93 Work completed. R.I. CRMP regulations out to public notice for adoption October 1994.

Project Results

- a) *Proposed Program Change:* Accomplished. New regulations and revised policy adopted into R.I. CRMP.
- b) *Summary of Results/Enhancement:* Better geomorphological descriptions of shoreline erosion prone areas and policies prohibiting development in undeveloped barrier beaches regulating development or headlands.
- c) *Project Products to Date:* Maps and new regulations.
- d) *Other Benefits/Spin-off:* Much better coordination with university researchers.
- e) *Unexpected Results:* Continued funding of geological research.
- f) *Impediments to Project Success:*
- g) *Was the project national/state/local in importance and why?* Model for appropriate management of barrier beaches, erosional headlands based on erosion rates and geologic processes.

SOUTH CAROLINA

The §309 Priority Enhancement Needs identified by South Carolina cover four issues:

- Wetlands
- Coastal Hazards
- Public Access
- Cumulative and Secondary Impacts

The problems identified in the §309 priority enhancement issue areas are summarized as follows:

Wetlands

The South Carolina Coastal Council (SCCC) identified the lack of an effective enforcement program for the management of freshwater wetlands as one of the most critical needs facing the South Carolina coastal zone. Adequate authority exists within the Army Corps of Engineers, EPA and the SCCC to provide effective management, but manpower restrictions at the federal level and the lack of an aggressive coordinated effort by the three agencies has led to a lack of public compliance. The Coastal Council will develop binding operating agreements with the Army Corps of Engineers and the Environmental Protection Agency (EPA) to ensure that violations of coastal freshwater wetlands regulations are detected and prosecuted consistently.

Coastal Hazards

South Carolina's coastline extends roughly 140 miles eastward into the Atlantic Ocean from the Georgia Coast. As a result, South Carolina is vulnerable, and often the target of not only tropical storms and hurricanes, but also winter and northeasterly storms. Both of these types of storms results on critical, nearly year round, shoreline erosion problems. Additionally, short term erosion is also a serious problem in South Carolina.

Through a Project of Special Merit from the §309 program, the South Carolina. Through such factors as inlet dynamics, littoral barriers and local storm effects, these natural processes will result in a loss of land damage to homes and buildings and supporting infrastructure.

Coastal Council (SCCC) will refine its methodology for setting erosion-based baseline and setback lines for beachfront development. This innovative model will be applicable nationally and will provide a more technically sound basis for developing erosion-based retreat policies and comprehensive sediment budget analysis programs.

Public Access

The South Carolina coastal zone grows at a rapid pace which has lead to a decrease in public coastal access, a result of growing resident and tourist population and private development of previously open areas. Land acquisitions, improvement of existing areas, estimations for future demand and identification of existing deficiencies is needed. The SCCC will address public access through its §309 program by developing a dedicated funding source for acquisition of land for public use and development regulations to increase public access through permit conditions.

Cumulative and Secondary Impacts

Coastal South Carolina has experiences a very rapid growth rate since 1960, generally unaffected by economic trends. Since 1980, the population in eight coastal counties has increased by 23 percent. The influx of residents and the tourism-related industry has resulted in negative impacts such as shellfish area closures, traffic congestion, development of barrier islands, loss of traditional public access opportunities, and

increasing shoreline erosion problems. Equally serious is the degradation of water quality from non-point and point source pollutants from stormwater runoff, marinas, golf courses, and improperly functioning septic tanks.

The Coastal Council will address the issues of cumulative impacts through the §309 program by cooperating with other agencies to develop new or revised regulations for septic systems and stormwater runoff and to restructure its designation and protection process for geographic areas of particular concern.

List of South Carolina §309 Projects for FY92 and FY93

Wetlands, WF, FY92--\$80,000, FY93--\$81,719

SC(1) Developer's Handbook for Freshwater Wetlands, WF, FY92--\$80,000, FY93--\$81,719 (Note includes cost of Projects SC(2) and SC(3))

SC(2) Joint Federal/State Freshwater Wetlands Enforcement, WF, FY92 and FY93 \$ (See SC(1))

SC(3) Errors and Omissions Study of Wetlands and Review of Mitigation Compliance in South Carolina, WF, FY92 and FY93 \$ (See SC(1))

Coastal Hazards

SC(4) Development of Beach/Dune Critical Area Computer Based Inventory & Zoning Overlay, PSM, FY92--\$215,000 FY93--\$200,000

Public Access

SC(5) Assessment of Beach Access in South Carolina and Enactment of Beach Access Development Fund, WF, FY92--\$50,000, FY93--\$42,748

Cumulative and Secondary Impacts

SC(6) CSI- Water Quality Protection Objectives, WF, FY92--\$43,902, FY93--\$33,097

SC(6)(a) Development of Comprehensive Policy for Shellfish Protection

SC(6)(b) Revision of State Stormwater Management Guidelines

SC(6)(c) Revision of State Septic Tank Maintenance Guidelines

SC(6)(d) Plan for Marina Pumpout Installation

SC(7) CSI - Federal Consistency Outside CZM Boundary, WF, FY92--\$14,300, FY93--\$22,000

SC(8) CSI - Revisions to Geographic Areas of Particular Concern (GAPC) Guidelines, WF, FY92--\$26,000, FY93--\$25,000

A summary of each §309 project is attached.

State Contact: South Carolina Coastal Council
4130 Faber Place, Suite 300
Charleston, SC 29405
803-744-5838 (Phone)
803-744-5847 (Fax)

§309 Contact: Chris Brooks

Title: SC (1) Developer's Handbook for Freshwater Wetlands, WF, FY92-80,00, FY93--\$81,719 (note monies include costs of SC(2) and SC(3))

Project Description: The purpose of this project is to update the Developer's Handbook. The Developer's Handbook is a comprehensive guide to all of the wetlands management policies and regulations and procedures of the state and federal regulatory agencies. The Handbook will continue to educate the public, developers, landowners and potential requirements and activities to be undertaken by the §309 effort. The Handbook will be used to educate local government officials of state and federal wetland policies and regulations.

Length of Project: 1 Year (August 1, 1992 - July 31, 1993)

Project Benchmarks

FY92

- draft updated handbook
- public comments and revised handbook
- final handbook and distribution

Project Completion Status

FY92 Work - Completed

Project Results

a) *Proposed Program Change:* Not Accomplished.

Project was designed to update a handbook that explains existing state laws, policies and regulations regarding wetlands management. This improves state enforcement of wetland regulations but does not constitute a program change as narrowly defined.

b) *Summary of Results/Enhancement*

The Developer's Handbook provides a comprehensive guide to all wetland management policies, regulations and procedures of both the State of South Carolina and Federal regulatory agencies. It serves as an educational guide for the public, developers, landowners and potential landowners about the regulatory policies and new requirements which must be followed.

c) *Project Products*

- 1) Developer's Handbook for Freshwater Wetlands, South Carolina Coastal Council

d) *Other Benefits:* None

e) *Unexpected Results:* None

f) *Impediments to Project Success:* None

g) *Is project of National/State/Local Importance:* All Three. It involves federal agency regulations, state regulations and laws which local governments and landowners must follow.

Title: SC (2) Joint Federal/State Freshwater Wetlands Enforcement, WF, FY92 and FY93 \$ (See SC(1) above)

Project Description: The purpose of this project is to ensure consistency between the South Carolina coastal laws and Federal agency actions in freshwater wetland settlement cases. This project involves development of a three party agreement between the State of South Carolina, the US Army Corps of Engineers and the Environmental Protection Agency to establish enforceable procedures for freshwater wetlands through a Memorandum of Agreement.

Length of Project: 2 Years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- Draft MOA
- Draft revisions to SCCC Internal Procedures for Enforcement of SCCC Certification Conditions on Section 404 Permits

FY93

- Final MOA
- Final Revisions to SCCC Certification Conditions on Sec. 404 Permits

Project Results

a) Proposed Program Change: Accomplished

- 1) State/Federal MOA signed in 1993 which assures federal consistency with state freshwater wetlands management policies, and state involvement in federal enforcement actions. (MOA)
- 2) Revisions to SCCC Internal Procedures for Enforcement of SCCC Certification Conditions on Section 404 Permits which allows SCCC to assess civil penalties and fines for activities that violate federal 404 permits. This involved regulatory revisions through legislation. (L/RR)

b) Summary of Results/Enhancement

A joint State/Federal freshwater wetland management and enforcement process has been established through a three agency agreement. This assures federal consistency with state freshwater management policies and ensures state involvement in federal enforcement actions.

The SCCC has revised its regulations to allow for the assessment of civil fines against a violation of a federal 404 permit that the state has also certified under its federal consistency provisions.

c) Project Products

- 1) MOA on Section 404 Enforcement
- 2) 1993 Amendment to South Carolina CZMA, Section 54/3/190

d) Other Benefits: None

e) Unexpected Results: None

f) Impediments to project Success: None

g) Is project of National/State/Local Importance: National and state

Title: SC (3) Errors and Omissions Study of Wetland and Review of Mitigation Compliance in South Carolina, WF, FY92 and FY93 (See SC (1))

Project Description: The purpose of this project is to address shortfalls in the state wetlands delineation process. This project involves revisions to the wetlands delineation process to correct errors and omissions and ensure greater consistency through wetlands delineation procedure guidance.

Length of Project: 2 Years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- Study wetland delineation process
- identify errors and omissions
- draft procedural guidance to correct shortfalls

FY93

- adopt procedural guidance

Project Completion Status

FY92 - Completed

FY93 - Completed

Project Results

- a) *Proposed Program Change:* Accomplished
 - 1) Procedural Guidance for Delineation of Wetlands Adopted in 1993 by South Carolina Coastal Council. (PG)
- b) *Summary of Results/Enhancement*

The procedural guidance for the delineation of wetlands corrects errors and omissions in designating wetlands and ensures greater consistency in the administration of wetland regulations.
- c) *Project Products*
 - 1) South Carolina Coastal Management Program Document, RPI 1993.
- d) *Other Benefits:* None
- e) *Unexpected results:* None
- f) *Impediments to Project Success:* None
- g) *Is the project of National/State/Local Importance:* State and Local

Title: SC (4) Development of Beach/Dune Critical Area Computer Based Inventory & Zoning Overlay, PSM, FY92--\$215,000 FY93--\$200,000

Project Description: The purpose of this project is to improve beach and dune critical area management through an improved inventory of beach and dune resources and local zoning overlay maps for enforcement of state regulations at the local level.

Length of Project: 2 years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- Beach/Dune Computer Orthophoto Inventory

FY93

- Beach/Dune Zoning Overlay Maps

Project Completion Status

FY92 - Completed

FY93 - Completed

Project Results

a) Proposed Program Change: Accomplished

Local governments have adopted Zoning Overlay Maps for beach/dune areas to enforce state beachfront regulations. (LP)

b) Summary of Results/Enhancement

Zoning Overlay Maps provide greater specificity of beach/dune resources required to the regulated by local governments as critical areas under the SCCC beachfront management program. Each of the 18 local jurisdictions has adopted through ordinance the zoning overlay maps which provide the exact location of the shoreline and setback of structures required to be regulated. As a result, local decisions regarding siting of structures along South Carolina's shoreline will more accurately address setback requirements.

c) Project Products

- 1) Computer Based Beach/Dune Critical Area Orthophoto Inventory
- 2) Beach/Dune Zoning Overlay Maps

d) Other Benefits: None

f) Impediments to Project Success: No

g) Is Project of National/State/Local Importance: State and Local

Title: SC (5) Assessment of Beach Access in South Carolina and Enactment of Beach Access Development Fund, WF, FY92--\$50,000, FY93--\$42,748

Project Description: The purpose of this project is to assess public access problems and address shortcomings through improved beach access mechanisms.

Length of Project: 2 Years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- beach access assessment study

FY93

- Legislative Adoption of Beach Access Development Fund

Project Results

a) Proposed Program Change:

- 1) In 1993, Legislature adopted Beach Access Development Fund. (L)

b) Summary of Results/Enhancement

The Beach Access Development Fund sets aside funds for beach access. It directs fees into a fund for beach access development. The fund is expected to generate about \$90,000 in revenues per year to be used to improve existing access sites and as matching monies for acquisition of new beach access sites.

c) Project Products

- 1) Comprehensive Plan for Beach Access Improvements
- 2) Beach Access Development fund 1993 Legislation

d) Other Benefits: None

e) Unexpected Results: None

f) Impediments to Project Success: None

g) Is Project of National/State/Local Importance: State and Local

**Title: SC (6) CSI - Water Quality Protection Objectives, WF, FY92--
\$43,902, FY93--\$33,097**

Project Description: The purpose of this project is to address cumulative and secondary impacts on water quality in South Carolina. The project consists of four separate activities:

- SC(6)(a) Development of Comprehensive Policy for Shellfish Protection
- SC(6)(b) Revision of State Stormwater Management Guidelines
- SC(6)(c) Revision of State Septic Tank Maintenance Guidelines
- SC(6)(d) Plan for Marina Pumpout Installation

See a separate summary for each activity on the following pages.

Title: SC (6)(a) Development of Comprehensive Policy for Shellfish Protection

Project Description: The purpose of this project is to develop a comprehensive policy for shellfish protection. This project involves development of a new shellfish policy by three state shellfish management agencies and amended laws/regulations to implement the policies.

Length of Project: 2 Years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- Draft shellfish policies

FY93

- Legislative adoption of regulatory changes to shellfish policies

Project Completion Status

FY92 - Completed

FY93 - Completed

Project Results

a) *Proposed Program Change:* Accomplished

- 1) In 1993, Legislature adopted amended shellfish regulations. (L/RR)

b) *Summary of Results/Enhancement*

Shellfish legislation amends state shellfish regulations by providing increased protection against encroachment of private docks and marinas into public shellfish areas.

c) *Project Products*

- 1) South Carolina CZMA Amended 1993: 54/3/190

d) *Other Benefits:* None

e) *Unexpected Results:* None

f) *Impediments to Project Success:* No

g) *Is Project of National/State/Local Importance:* State

Title: SC (6)(b) Revision of State Stormwater Management Guidelines

Project Description: The purpose of this project is to address cumulative impacts on water quality through revisions to the state's stormwater management guidelines. The projects involved development of revised guidelines and legislation to adopt revisions.

Length of Project: 1 Year (August 1, 1992 - July 31, 1993)

Project Benchmarks

FY92

- stormwater management guidelines
- stormwater management legislation

Project Completion Status

FY92-Completed

Project Results

a) Proposed Program Change

- 1) In 1992, Legislature adopted Stormwater Management Legislation which amended state stormwater regulations. (L/RR)

b) Summary of Results/Enhancement

Revised stormwater management guidelines establish new standards for certain activities such as golf courses, bridges, and elevated roadways to minimize runoff and impacts on water quality.

c) Project Products

- 1) State Stormwater Management Guidelines 1993.

d) Other Benefits: None

e) Unexpected Results: None

f) Impediments to Project Success: No

g) Is Project of National/State/Local Importance: State

Title: SC (6)(c) Revision of State Septic Tank Maintenance Guidelines

Project Description: The purpose of this project is to improve state management of septic tanks to minimize cumulative impacts on water quality. This project involves revisions to state septic tank maintenance guidelines to address water quality issues.

Length of Project: 2 Years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- draft septic tank guideline revisions

FY93

- Legislature adopt septic tank regulatory revisions

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

a) **Proposed Program Change:** Accomplished

- 1) In 1993, the Legislature adopted revised state septic tank maintenance guidelines. (L/RR)

b) *Summary of Results/Enhancement*

The revised state septic tank maintenance guidelines require annual pumpout and inspections and statement of proof that the septic tank system works. This will improve septic tank management to minimize cumulative impacts on water quality.

c) *Project Products*

- 1) 1993 Legislation Revision of State Septic Tank Law.

d) *Other Benefits:* None

e) *Unexpected Results:* None

f) *Impediments to Project Success:* No

g) *Is Project of National/State/Local Importance:* State

Title: SC (6)(d) Plan for Marina Pumpout Installation

Project Description: The purpose of this project is to address cumulative impacts of water quality through a plan for marine pumpout installations.

Length of Project: 2 Years (August 1, 1993 - July 31, 1995)

Project Benchmarks

FY92

- develop marina pumpout plan

FY93

- adopt legislation for marina pumpout fund
- institute educational program

Project Completion Status

FY92-Completed

FY93-On Schedule

Project Results

a) Proposed Program Change: Accomplished

- 1) Legislation passed in 1993 which established funds to buy and install pumpout stations at marinas. (L)

b) Summary of Results/Enhancement

Establishment of a fund to buy and install pumpout stations for South Carolina's marinas will reduce the illegal dumping of sewage from vessels. This, in turn, will reduce adverse cumulative impacts on water quality from marine vessels. Combined with an educational program, boaters will be encouraged to use pumpout facilities.

c) Project Products

- 1) 1993 Legislation Creating Pumpout Stations Fund

d) Other Benefits: None

e) Unexpected Results: None

f) Impediments to Project Success: No

g) Is Project of National/State/Local Importance: State

Title: SC (7) CSI - Federal Consistency Outside CZM Boundary, WF,
FY92--\$14,300, FY93--\$22,000

Project Description: The purpose of this project is to improve and extend federal consistency to include activities outside the South Carolina coastal zone. This project involves development of a MOA with federal agencies to make sure their actions outside the coastal zone are consistent with South Carolina coastal policies.

Length of Project: 2 Years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- draft MOA

FY93

- adopt MOA

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

- a) *Proposed Program Change:* Accomplished
 - 1) MOA adopted between SCCC and federal agencies on Federal Consistency Outside CZM Boundaries in 1993. (MOA)
- b) *Summary of Results/Enhancement*

The MOA extends federal consistency to include activities outside the South Carolina coastal zone. It ensures that federal actions outside the coastal zone are consistent with South Carolina coastal policies. As a result, adverse cumulative impacts from federal activities outside the coastal zone are addressed and minimized through the federal consistency review process.
- c) *Project Products*
 - 1) MOA on Federal Consistency Outside CZM Boundary.
- d) *Other Benefits:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* No
- g) *Is Project of National/State/Local Importance:* State

Title: SC (8) CSI - Revisions to Geographic Areas of Particular Concern (GAPC) Guidelines, WF, FY92--\$26,000, FY93--\$25,000

Project Description: The purpose of this project is to improve the Geographic Area of Particular Concern (GAPC) guidelines as a mechanism for addressing cumulative and secondary impacts from development in these sensitive areas.

Length of Project: 2 Years (August 1, 1992 - July 31, 1994)

Project Benchmarks

FY92

- draft amended guidelines

FY93

- adopt legislation to amend GAPC guidelines

Project Completion Status

FY92-Completed

FY93-Completed

Project Results

a) Proposed Program Change: Accomplished

- 1) In 1993, Legislature adopted amended GAPC Regulatory Guidelines. (L/RR)

b) Summary of Results/Enhancement

The legislatively adopted GAPC Guidelines amendments expand existing and adds new categories of areas (eg: historic area, shellfish beds) that can be designated as GAPCs. It also identifies protection standards to assure that permits for construction in such areas will protect identified resources and not violate protection standards.

c) Project Products

- 1) 1993 Legislation - Amendment to GAPC law. South Carolina CZMA, Section 54/3/190.

d) Other Benefits: None

e) Unexpected Results: None

f) Impediments to Project Success: No

g) Is Project of National/State/Local Importance: State

U.S. VIRGIN ISLANDS

The §309 Priority Enhancement Needs identified by the Virgin Islands cover two issues:

- Cumulative and Secondary Impacts
- Public Access

The problems identified in the §309 priority enhancement issues areas are summarized as follows:

Cumulative and Secondary Impacts

Cumulative and Secondary Impacts (CSI) in the Virgin Island coastal zone are the result of several activities related to: hotel and condominium development; commercial and residential upland development; dredging and filling of salt ponds and wetlands; and the increase in the number of marinas and dock facilities. CSI are closely intertwined with wetland degradation and destruction. Run-off from developed areas and sewage disposal systems negatively impacts the wetlands and beaches. Also, increased run-off increases the potential of erosion. Added to the numerous issues and problems associated with cumulative and secondary impacts, is the fact that the present regulatory system restrict CZM jurisdiction to that narrow strip of land running the perimeter of the V.I. coastline. As a result, much of the upland development goes unchecked or is regulated by less restrictive controls.

Public Access

With the increased demand for coastal access for tourism and Virgin Island residents, hotels and condominiums have increased dramatically in number, thereby reducing the amount of available coastal access for the public. The access problem has become more acute because littoral property owners are now developing lots which had remained vacant in past years. Other problems include the growing resistance by littoral property owners to allow people to cross their property to get to the shore, habitat destruction by the public; lack of appropriate facilities at the access sites such as garbage receptacles, off street parking and picnic tables. Finally, there currently is no accurate inventory of public coastal access in the Virgin Islands.

List of the Virgin Islands §309 Projects for FY 1992 and FY 1993

Cumulative and Secondary Impacts

VI(1) Cumulative and Secondary Impacts Project, WF, FY92--\$55,000, FY93--\$55,000.

Public Access

VI(2) Public Access Project, PSM, FY92--\$71,000, FY93--\$82,834.

A summary evaluation of each §309 project is attached.

State Contact: Department of Planning and Natural Resources
Nisky Center, Suite 231
Charlotte Amalie, St. Thomas, USVI 00802
809-774-3320 (Phone)

Contacts: 809-775-5706 (Fax)
Sue Higgins
Joan Harrigan Farrelly

Title: VI (1) Cumulative and Secondary Impacts Project, WF, FY92--\$55,000, FY93--\$55,000.

Project Description: The purpose of this project is to convert the existing CZM management area from a two tier system to a single tier system which would include the entire land masses of all three islands, presently excluded from the existing CZM jurisdiction. A second objective would be to replace the Earth Change Law with regulations which would regulate future development based on the proposed use, site conditions, type, size, and any other features relevant to the development. A third objective of the §309 project would be to redefine the major and minor permits. Restructuring the tier system would also mean restructuring the CZM Commission as well as the Permits Division and the CZM Program.

Length of Project: 3 years (October 1, 1992 - September 30, 1995)

Project Benchmarks

FY92

- Hired a Senior Planner
- Preliminary report on single tier system completed
- Final single tier system program changes for CZM Commission in June '93 (rejected by Commission)
- Assessment report on the Land Development Law presented September '93

FY93

- Report analysis of proposed single-tier system changes submitted July '94

Project Completion Status

FY92

Not on schedule, but still likely to be completed.

FY93

Not on schedule, but still likely to be completed.

Project Results

a) Proposed Program Changes: On schedule.

- 1) Convert the two tier permitting system to a single tier system, which would then recognize the entire territory as being within the coastal zone. (RR/L)
- 2) Implementation of an Environmental Assessment and Impact Study (EAIS) for all proposed development. (PG)

b) Summary of Results/Enhancement

- V.I. Legislature in the process of scheduling public hearings on proposed CLWUP legislation to be held in late September

c) Project Products To Date

- Final version of CLWUP delivered to the Governor 6/94
- Public meetings held in May, 1993 on St. Croix, St. Thomas, and St. John

d) Other Benefits

- The Coastal zone and its development would become a total entity falling under a single development law
- Major permits thresholds and procedures revised
- Guidelines for the preparation of EAIS revised

- e) *Unexpected Results:* none
- f) *Impediments to Project Success:* Responsibility for parks type activities rests with several territorial agencies, each of which has its priorities. Moreover, some agencies serve as state agencies for the respective federal grantor departments, (DOC, DOI, DOT, USDA, EPA). Any change proposed for the Territory's administrative structure must take into account the complexity of parks-related federal funding.
- g) *Is the Project of National/State/Local Importance?* State and Local

Title: VI(2) Public Access Project, PSM, FY92--\$71,000, FY93--\$82,834

Project Description: This multi-year task Project of Special Merit (PSM) task is to establish a Territorial Parks System (TPS) Authority and spell out its responsibilities to oversee marine and terrestrial parks, open spaces, and protected areas.

Length of Project: 3 years (October 1, 1992 to September 30, 1995)

Project Benchmarks

FY92 - achieved in FY93.

FY93

- Report on the roles of the Housing, Parks and Recreation and the Department of Planning and Natural Resources in relation to the Territorial Park System
- MOU Between the Department of Housing, Parks and Recreation and Planning and Natural Resources AND the Department of Property & Procurement finalized for signature
- Report on Existing Park Legislation pertaining to land acquisition; federal and territorial funding sources (forwarded to OCRM 8/94)
- Assessment of State Agencies and Departments with Parks-Related Functions
- Draft of the Land Development Law Relating to Parks
- Inventory of Potential Park Sites (Government-owned property)
- Report on the establishment of a Territorial Park Authority
- Report assessing applicability of fundraising techniques to the Territorial Park System

Project Completion Status

FY92 Work

- Not on schedule but likely to be completed

FY93 Work

- Not on schedule but likely to be completed

Project Results

- a) *Proposed Program Change:* Not on schedule, but still likely to be completed.
 - 1) The implementation of a Territorial Park System Authority which would be considered an improvement to the territory's coastal planning structure. (L)
 - 2) Implementation of a Territorial Park System and management team. (L)
- b) *Summary of Results/Enhancement:* not yet completed
- c) *Project Products To Date:* see above
- d) *Other Benefits:* Improved dialogue within government and with concerned citizens about how best to achieve the goal.
- e) *Unexpected Results:* Raised awareness of opportunities for public/private partnerships in park funding and management.
- f) *Impediments to Project Success:* Responsibility for parks-type activities rests with several territorial agencies, each of which has its priorities. Moreover, some agencies serve as state agencies for the respective federal grantor departments, (DOC, DOI, DOT, USDA, EPA). Any change proposed for the Territory's administrative structure must take into account the complexity of parks-related federal funding.

- g) *Is the Project of National/State/Local Importance? Yes.* We expect that the program change will result in significantly expanded public/private partnerships to assure funding for acquisitions and operations into the 21st century.

VIRGINIA

The §309 Priority Enhancement Needs identified by Alabama cover five issues:

- Wetlands
- Hazards
- Public Access
- Cumulative and Secondary Impacts
- Special Area Management Planning

The problems identified in the Virginia §309 priority enhancement issues areas are summarized as follows:

Wetlands

Within its current water quality standards, Virginia presently lacks an adequate definition and classification categories for non-tidal wetlands. This lack of a classification impairs the protection of non-tidal wetlands within the coastal zone of the State. The only existing classification, called swamp waters, addresses only a small fraction of the more than 500,000 acres of non-tidal wetlands within the Commonwealth's zone. Additionally, it lacks descriptive criteria which would specifically designate certain waters as non-tidal wetlands, describe their function and value, and provide biological water quality criteria for use by the State Water Control Board in formulating its permit decisions.

Special Area Management Planning

Lower Northampton County and its barrier island lagoon system and bayside creeks contain a unique mix of cultural and natural resources. The Eastern Shore's chain has been designated a World Biosphere Reserve by the United Nations in recognition of its great ecological value. Approximately 260 species of birds depend heavily on lower and seaside Northampton County habitat. The area also supports a large array of rare and endangered species such as the Northeastern Beach Tiger Beetle, piping plover, and bald eagles.

Northampton is also experiencing a demand for high density, low-income housing. Poor soil suitability for septic systems requires appropriate sewage disposal. Such treatment is often unaffordable in a depressed economy such as Northampton's. Additionally, the County is seeking to locate a seafood or vegetable processing industrial park within the proposed management area. Eco-tourism also threatens Northampton's natural resources. If not properly planned, human activities could damage these natural resources.

The issue at hand revolves around the inability to deal with these threats. The difficulty in dealing with these threats is that there is no distinct state and/or local agency charged with and given the authority to coordinate a comprehensive approach to resource protection and compatible economic development. Each party is constrained by its own turf, and thereby incapacitated from addressing cross-cutting issues. Coordinated effort is hampered by the lack of funding for data collection and analysis/synthesis.

List of Virginia §309 Projects for FY 1992 and FY 1993

Wetlands

VA (1) "Protecting Virginia's Non-tidal Wetlands" WF, FY92-- \$50,000, FY93 -- \$50,000

Special Area Management Planning

VA (2) "Conservation Easement Program," PSM, FY92--\$85,000

VA (3) "Coordination of Lower Seaside Northampton County Special Area Management Plan," FY92 -- \$178,000, FY93 -- \$178,000.

A summary evaluation of each §309 project is attached.

State Contact:

Laura McKay
Department of Environmental Quality
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804-762-4319 (Fax)

Title: VA (1) Protecting Virginia's Nontidal Wetlands WF, FY92 -- \$50,000,
FY93 - \$50,000

Project Description: The purpose of this project is to develop non-tidal wetland water quality standards. A water classification system will be established, a methodology assessing the functional values and beneficial uses of non-tidal wetlands will be developed, and criteria to protect wetlands of high value will be adopted.

Length of Project: Original Time Schedule: 2 years
(October 1, 1992 to September 30, 1994)

Update:

FY92 Extended project through December 31, 1993

FY93 Extended project through March 31, 1995

Project Benchmarks

FY92

- Report on activities in other states concerning beneficial use designation, development of water quality standards for wetlands and identification of specific wetlands for protection.
- Draft nontidal wetlands classification scheme, with criteria for identifying high value wetlands.
- Draft assessment methodology which identifies likely functions and values and designated beneficial uses of nontidal wetlands.

FY93

- Functioning assessment sampling of nontidal wetlands.
- Report on field sampling of functions and designation of beneficial uses.
- Refined classification system proposed to DEQ Management
- Draft report on identification of high value wetlands.

Project Completion Status

FY92 Completed

FY93 Not on schedule, changed scope of work, but revised scope is still likely to be completed.

Project Results

a) Proposed Program Changes: Not on schedule, but still likely to be completed.

- 1) Development and adoption of a comprehensive water quality classification system for non-tidal wetlands within Virginia's coastal zone. (PG)
- 2) Development and adoption of criteria to be used in designating specific high value wetlands for placement in the highest protection classifications. (PG)

b) Summary of Results/Enhancement:

- Review of State Programs
- Review of Wetlands Assessment Methods
- Description of Assessment Method Proposed for Virginia
- Proposed Virginia Wetlands Classification System

- c) *Project Products To Date:*
FY 92: As described above.
FY93: None received to date.
- d) *Other Benefits:* None
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* During the project period, the Council on the Environment, and the State Water Control Board have been combined with the Departments of Waste Management and Air Pollution Control to form this new Department of Environmental Quality. The project has been impeded by this consolidation and the associated uncertainties in structural reorganization. There has been a gubernatorial change in the state and the administration has put forth a policy that there will be no new regulations that are more stringent than federal guidelines. Both factors have contributed to the lack of policy direction for this project. It has been very difficult to effect program changes in such a short period, given the changing political climate.
Additionally, products under this project would be developed at least one year prior to EPA's process for reviewing Virginia's compliance with water quality standards development through the Triennial Review of the Clean Water Act. This could lead to a program being established (including regulatory and structural elements, as well as citizen expectations) that could then be judged insufficient to meet EPA's minimum requirements.
- g) *Is the Project of National/State/Local Importance?* State

Title: VA (2) Conservation Easement Program, PSM, FY92--\$85,000

Project Description: The purpose of this project is to develop and implement a "state-of-the-art" conservation easement manual for waterfront farms specifying measures to control inappropriate development and minimize land use impacts on water quality. Work will be subcontracted to the Nature Conservancy which will work with individual farmers on about 10 priority tracts. A financial analysis model will be developed and applied to illustrate that low impact development is an economically viable alternative for waterfront farms.

Length of Project: 1 year (October 1, 1992 to September 30, 1993)

Project Benchmarks:

FY92

- By January 1993, revise model easement; complete list of priority tracts and detailed criteria used for setting priorities.
- By February 1993, complete financial analysis model.
- By March 1993, photos and maps complete for 6 tracts.
- By April 1993, land-use plans and financial analyses complete for 6 tracts.
- By July 1993, photos and maps for 4 tracts; contact 20 landowners and have commitments for 10 tracts.
- By September 1993, land-use plans and financial analyses complete for remaining 4 tracts.
- By October 1993, 10 easements and conservation easement manual.

Project Completion Status

Completed

Project Results

a) Proposed Program Changes: To record conservation easements on 10 seaside farm tracts. (AMR)

b) Summary of Results/Enhancements

- 1) A state-of-the-art conservation easement was developed for seaside farms and villages.
- 2) A ranging system for identifying priority tracts was created based on: developability factors (water access, water frontage, acreage, soils), programmatic values, and opportunity to secure an easement. A financial analysis model was developed and applied to the 10 tracts for which easements were developed. Contacts were made with at least 20 priority tract owners. These contacts resulted in the Conservancy acquiring four properties, taking options on two properties and negotiating on five additional properties. Baseline data and maps were prepared for all 10 tracts. The Conservancy completed necessary steps to assure permanent conservation easement restrictions for 10 properties. The Conservancy now owns title to each of these properties. The Conservancy will retain and record a conservation easement upon the sale or transfer of the properties, using the conservation easement legal document as presented in the appendix of the manual. Two thousand copies of "Partners in Protection—Virginia's Eastern Shore Seaside Farms—A Conservation Easement Program." This full color, 40-page manual was designed for landowners, potential seaside farm buyers and conservation practitioners.

- c) *Project Products To Date:* As described above.
- d) *Other Benefits:* In the process of carrying out this work, many property owners were educated about the need and reasons for conservation practices on the seaside of Northampton County; the Virginia Coast Reserve of The Nature Conservancy developed GIS computer mapping capability for very detailed, site-scale land use planning. In exchange for this, The Conservancy agreed to share with the Northampton Special Area Management Plan Sustainable Development Program the following: water quality monitoring data from trained citizen volunteers; detailed data sets on other Conservancy "macrosites," ground-truth data at the individual easement sites as it is collected; a GIS base map for Accomack County.
- e) *Unexpected Results:* As described above.
- f) *Impediments to Project Success:* There were no major impediments except that a one-year grant was an extremely short time frame in which to attempt to actually record the easements.
- g) *Is the Project of National/State/Local Importance?* This project is significant at all levels of government. It is locally significant in that it has resulted in the perpetual protection of key seaside farms in Northampton County. It is significant at the state level because it is being used by Nature Conservancy staff as a "sales tool" for convincing waterfront farmers to place easements on their property. It is of national significance as a model approach.

Title: VA (3) Lower and Seaside Northampton County Special Area Management Plan, FY92—\$178,000; FY93—178,000

Project Description: This project is designed to protect bird habitat and fin/shellfish habitat on the tip and seaside of the Delmarva peninsula (including its barrier island lagoon system) while simultaneously developing sustainable industries such as nature tourism and aquaculture which rely on the protection of coastal habitats. Other sustainable industries such as natural products-based arts and crafts, sustainable agriculture, and a zero-emission or "green" industrial park are being developed. The project involves federal, state, local and nonprofit entities as well as a large citizen task force. Research on migratory songbird habitat was conducted to fill in data gaps. All coastal resource data layers are to be entered into a comprehensive ARC/INFO Geographic Information System to aid in the planning process.

Length of Project: 4 years (October 1, 1992 to September 30, 1996)

Project Benchmarks

FY92

- By January 1993, hire a project coordinator based in the County office.
- By March 1993, appoint citizen task force, compile existing data for GIS; prepare RFP for economic analysis of value of coastal resources in the area.
- By June 1993, secure contractor for economic work, hold public workshop on the Special Area Management Plan; develop plans for first Eastern Shore Birding Festival; complete migratory songbird habitat/land use inventory.
- By August 1993, begin weekly bird surveys recording number and species of birds and use of habitat structure.
- By September 1993, train project coordinator in use of ARCView software; enter hydrographic, transportation and building footprint data into GIS; draft public access guidelines, hold workshop on exceptional waters designation.
- By November 1993, analyze FY91 and FY92 migratory songbird data. Complete digital maps of barrier island and marsh nesting sites for colonial water birds.

FY93

- By September 1994, maps of sites to be nominated for exceptional waters designation; report on sustainable economics analysis; draft MOU for public access; draft subdivision ordinance for protecting vegetation; draft cluster development zoning ordinance; adopt sustainable development action strategy.

Project Completion Status

On schedule.

Project Results

- a) *Proposed Program Changes:* On schedule. Modification of existing subdivision ordinance to maintain maximal vegetative cover; MOU to amend state road design criteria, minimize impervious surface and vegetation clearing; MOU to minimize vegetation clearing and pesticide use and maximize planting of native vegetation in power line rights-of-way; modification of zoning ordinances to encourage development clustered around historic town sites; designation of exceptional waters where no additional discharges are allowed; subaqueous permit guidelines for siting of aquaculture facilities, dredge material disposal and marinas; stormwater management plan and ordinance; MOU to increase public access and promote nature tourism. (MOU/RR/PG/LP)

- b) *Summary of Results/Enhancement:* A new county zoning ordinance and map have been drafted and are being considered by the Planning Commission to focus development in the County's settlements, villages and towns. The ordinance will require cluster development to protect vegetation/habitat and water quality. Specific vegetation protection and installation provisions are included in the draft zoning ordinance. Nominations have been drafted for exceptional waters designation. A community workshop on this issue was held. An MOU has been drafted between the county and Delmarva Power Company for appropriate management of vegetation in power line rights-of-way for wildlife habitat protection. First Annual Birding Festival attracted over 1,000 visitors from outside the county and 1,000 local residents. Economic analysis estimated visitor spending at \$52,000. Initial data layers for the GIS are completed. Research on habitat requirements of migratory songbirds is complete. A report entitled "Northampton Migratory Bird Habitat Utilization Study" is complete and available as is the Northampton County Sustainable Development Action Strategy."
- c) *Project Products To Date:* As described above.
- d) *Other Benefits:* The clam mariculture industry in the country is taking advantage of the commitment to clean waters (through exceptional waters designation) and is expanding its operations.
- e) *Unexpected Results:* The County Board of Supervisors has requested that the entire county be included in the Management Plan. Funding of the SAMP led directly to the county receiving a \$500,000 ISTEAA grant. An historic settlements, villages, towns survey/preservation ordinance will be conducted/adopted by the county and jointly funded by the Virginia Department of Historic Resources. A First Annual Heritage Festival was sponsored by the County and other SAMP partners focusing on interconnections of the county's natural and cultural history and resources with special emphasis on and participation from the county's African-American population. The Port of Cape Charles Sustainable Development Industrial Park was selected as a demonstration site for the President's Council on Sustainable Development. The Northampton County Sustainable Development Action Strategy received the National Association of Counties Presidential Leadership Award for Sustainable Development. The Sustainable Development Task Force Chairman, Dr. Mike Pierson, was appointed to the Virginia Sustainable Development Task Force by Governor George Allen. The County Administrator, Tom Harris, was appointed to the National Association of Counties Sustainable Development Task Force. Tim Hayes, the SAMP coordinator, was flown to Utah to describe the program to USDA staff.
- f) *Impediments to Project Success:* There have been few impediments thus far other than a need for more time than anticipated to educate all of the stakeholders as to what the Plan is attempting to accomplish.
- Local political support has been very good. It remains to be seen how far a locality can proceed in Virginia (given Dillon's Rule) toward enacting ordinances which restrict a property owner's right to remove vegetation. There is a slight problem in that exceptional waters designation precludes shellfish hatcheries; however, growout of shellfish can occur in exceptional waters which is the key to enhancing marketability.

- g) *Is the Project of National/State/Local Importance?* Yes, the project is of importance at all levels. Local importance is perhaps the greatest in terms of actually protecting habitat and revitalizing a collapsed local economy. National importance stems from this being one of the few examples in the country of implementation of a comprehensive sustainable development strategy.**

WASHINGTON

The §309 priority enhancement needs identified by Washington cover five issues:

- Wetlands
- Cumulative and Secondary Impacts
- Hazards
- Public Access
- Special Area Management Plans (SAMP)

The problems identified in the §309 enhancement issue areas are summarized as follows:

Wetlands

Although Washington boasts a tremendous diversity of wetlands, about one-third have been lost to fill or conversion to other uses. The loss continues through direct threats such as filling, draining, dredging and vegetation removal and through indirect threats such as sediment production from erosion, exotic plant species introduction, and stormwater impacts. No single wetlands management program exists and existing authorities do not adequately cover wetlands less than 20 acres in surface area or riparian wetlands associated with streams of less than 20 cfs annual average flow. Attempts in 1989 and 1990 to pass comprehensive wetlands management legislation failed. Washington's new Growth Management Act may offer an opportunity to partially address gaps in wetlands regulatory programs through local plans and regulations.

Cumulative and Secondary Impacts

Washington's Puget Sound area is experiencing the adverse affect of growth- congested freeways, restrictions on wood burning stoves, weekend lines at ferry landing, and higher taxes. Growth is also affecting shoreline resources: Shellfish bed closures due to bacterial contamination from failing septic systems and urban stormwater runoff; pacific herring, surf smelt, chum, and pink salmon threatened by loss of shallow water habitat due to bulkheading and other forms of shoreline hardening; and the elimination of wildlife habitat such as sandspits further endangering marine bird species. The wide range of cumulative and secondary impacts from growth, including the loss of wetlands functions, need to be addressed through more effective regulations or develop some special protection for its special coastal resources.

Hazards

Coastal hazards in Washington consist of three related problems- flooding, erosion and land slides, and sea level rise. For none of these issues is there a comprehensive management, regulation, or protection of public and private investment in the shoreline. The proliferation of new residential construction along Puget Sound shorelines in recent years has lead to an increased incidence of shoreline armoring. Management discussions have been controversial. Washington needs to address the cumulative and secondary effects of large scale shoreline armoring practices while allowing for erosion protection of threatened structures and planning for appropriate new development.

Public Access

Loss of public access to water is one of the most pressing outdoor recreation problems facing Washington. On rivers, access points for boating and fishing are limited and often

through private property. Access to Washington's many lakes is blocked by privately owned shoreline. Access to the marine shoreline is less of a problem, but support facilities such as parks is inadequate for Washington's growing population. The high cost and scarcity of available adequate-sized waterfront property hampers public acquisition, coupled with cumbersome acquisition process. Although Washington's coastal program provides annual grants to local governments for public access, planning and acquisition, much more needs to be done in cooperation with other agencies.

Special Area Management Plans

Grays Harbor Estuary Management Plan is Washington's only formal SAMP. The Padilla Bay Estuarine Research Reserve and the Washington Coast Marine Sanctuary represent other forms of special area planning and designation. The Nisqually River Management Plan serves as a model for a non-regulatory SAMP. Washington needs to identify various kinds of special areas which would benefit from the SAMP process and for which there is local support for designation and management.

List of Washington's §309 Projects for FY92 and FY93

Cumulative and Secondary Impacts

WA (1) - Coordinate Shoreline Management Program with Growth Management Act, WF, FY92--\$221,000, FY93--\$221,000, FY94--\$221,000

Coastal Hazards

WA (2) - Coastal Erosion Management Strategy, PSM, FY92--\$179,000, FY93--\$100,000, FY94--\$133,000

A summary evaluation of each §309 project is attached.

State Contact: Washington Shorelands and CZM Program

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Title: WA(1) Coordinate Shoreline Management Program with Growth Management Act, WF, FY92--\$221,000, FY93--\$221,000, FY94--\$221,000

Project Description: The purpose of this project is to integrate CZMA/Shoreline Management Act (SMA) program improvement priorities, including those pertaining to wetlands protection, into the updated local comprehensive plans and implementing regulations (including Shoreline Management Plan updates) that are required to be developed by the new Growth Management Act (GMA). Shoreline Master Programs (SMP) will be enhanced when local governments complete their growth management plans. This project involves financial, technical and policy assistance to local governments in developing and adopting compatible growth, wetlands, and shoreline management strategies which will result in improved existing shoreline master programs consistent with the SMA and CZMP policies.

Length of Project: 4 Years (July 1, 1992- June 30, 1996)

Project Benchmarks

FY92

- develop technical assistance materials including model shoreline policies
- coordination with other state agencies to ensure consistent policy and approach, MOUs on technical assistance delivery; revise 306 grant award criteria to favor proposals addressing growth and CI issues
- solicit and deliver technical and financial assistance to local governments focusing on coastal growth impacts in local plan and policy development
- review and comment on proposed updates to local government plan and implementing regulations

FY93/94

- reports on continued provision of technical and financial assistance to coastal local governments with development of local plans and regulations to implement growth and shoreline management policies
- ensure local adoption of policies that incorporate model policy provisions developed by CZMP, including model shoreline management and wetlands regulations. Focus in FY95 will be on developing consistent implementing regulations.
- reports on state level coordination to address coastal cumulative impact issues.

FY96

- formal review and adoption of CZM Program improvements--enhanced local Shoreline Master Programs(SMP)-- and final rule adoption of local SMP amendments.

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

FY94 Work - On Schedule

Project Results

a) *Proposed Program Change:* Not Accomplished- not scheduled for completion until 1996.

Adoption of Rule on Shoreline Master Program Enhancements (RR)

- b) *Summary of Results/Enhancement:* Project not completed yet.
- c) *Project Products To Date Include:*
- 1) Coordinating Wetlands Requirements under the Shoreline Management Act and the Growth Management Act (5/93)
 - 2) A Mini-Guidebook on the Shoreline Management Act
 - 3) Suggested Shoreline Goals and Policy Considerations by Comprehensive Plan Element
 - 4) Shoreline Management Guidebook- 2nd Edition 1994 (1/94) and Appendix A- Integration of Growth Management with Shoreline Management: Local Options
- d) *Other Benefits*
- 1) gained experience working with local governments that are required to develop growth management plans and regulations, particularly about the issues;
 - 2) forced a second look at the Shoreline Management Act (SMA) and its relation to the new Growth Management Act (GMA) which will lead to new legislation to amend the SMA as part of a "regulatory reform" effort to integrate the GMA and the SMA;
 - 3) sponsored planning conference with local planners to discussion integration of SMA and GMA;
 - 4) local interest in using their Shoreline Master Programs (SMPs) as a mechanism to address growth management mandates such as designation and protection of critical areas; and
 - 5) opportunity to refocus some §306 funds to amend local Shoreline Master Programs.
- e) *Unexpected Results:* New understanding at the upper management level that Shoreline Management Program is most affect by the Growth Management Act and management conflicts need to be resolved.
- f) *Impediments to Project Success:* Growth Management Act was amended to delay deadlines for comprehensive plans for six months to match deadlines for development regulation completion. This should not be a major impediment however.
- g) *Is Project of National/State/Local Importance:* State and local.

Title: WA (2) - Coastal Erosion Management Strategy, PSM, FY92--\$179,000, FY93--\$100,000, FY94--\$133,000

Project Description: The purpose of this project is to develop an erosion management program addressing reduction of hazards and the mitigation of adverse cumulative effects of structural approaches to shoreline erosion control. This project involves the (1) development of model elements for local Shoreline Management Programs (SMPs) which will address (a) how to protect existing structures from erosion while minimizing adverse effects and (b) coastal erosion hazard management for new construction, emphasizing nonstructural approaches such as setbacks. It also involves (2) adoption by local governments and state approval of local Shoreline Master Program amendments followed by incorporation into the State SMP and Washington CZMP.

Length of Project: 4 Years (July 1, 1992- June 30, 1996)

Project Benchmarks

FY92

- Technical Studies: Shoreline Armoring Inventory and Characterization (Thurston County)
- Engineering and Geotechnical Techniques for Coastal Erosion Management in Puget Sound
- Shoreline Armoring Effects of Physical Coastal Processes in Puget Sound
- Annotated Bibliographies on Shoreline Armoring Effects, Vegetative Erosion Control, and Beach Nourishment
- Policy Studies: Policy Alternatives for Coastal Erosion Management
- Coordination: Coastal Erosion Technical Advisory Committee

FY93

- Technical Studies: Shoreline Armoring Effects on Coastal Ecology /Biological Resources Coastal Bluff Management Alternatives for Puget Sound
- Policy Studies: Regional Approaches to Address Coastal Erosion Management
- Coordination: Coastal Erosion Technical Advisory Committee (Abandoned)

FY94

- Technical Studies: Draft and Final Programmatic Environmental Impact Statement (EIS)
- Draft and Final Geotechnical and Land Use Practices Recommendations to Local Government for Adoption into "Shoreline Management Guidebook."
- Coordination: Initiation of Rule Adoption Process.

FY95

- Amend Washington Adm. Code 173-16 (Shoreline Management Act Guidelines for Development of Master Programs) to set a schedule for local government adoption of coastal erosion standards.
- Public Support: Coastal Erosion Advisory Committee

Project Completion Status

FY92 Work - Completed

FY93 Work - Completed

FY94 - On Schedule

Project Results

- a) *Proposed Program Change:* Not Accomplished-- completion of model elements for SMP scheduled for FY95; local adoption and CZMP amendment scheduled for FY96. (LP)
- b) *Summary of Results/Enhancement:* Project is not complete yet.
- c) *Project Products*
 - 1) Technical and policy reports (see benchmarks for titles)
 - 2) Coastal Erosion Bulletin- an occasional newsletter
 - 3) Draft and Final Programmatic EIS
 - 4) Draft and Final guidance to local governments
 - 5) peer review papers at conferences and symposia
 - 6) Technology transfer papers- planned
- d) *Other Benefits:* No
- e) *Unexpected Results:* No
- f) *Impediments to Project Success:* 1) agency downsizing and reorganization; 2) inability of other agencies and organizations to participate due to budget cuts resulting in abandonment of Coastal Erosion Technical Advisory Committee.
- g) *Is Project of National/State/Local Importance:* Yes-- good measure of interest in the project has been shown by coastal and shoreline managers in other states and nations, by other Washington state agency resource managers, and by local government shoreline administrators.

WISCONSIN

The §309 priority enhancement needs identified by Wisconsin cover three issues:

- Wetlands
- Hazards (made a high priority at request of OCRM)
- Cumulative and Secondary Impacts (dropped due to lack of funding)

The problems identified in the §309 enhancement issue areas are summarized as follows:

Wetlands

Wisconsin has lost roughly 50 percent of its original wetlands through filling, draining and otherwise altering them, resulting in degradation of water quality; decreased fish and wildlife habitats, populations, and diversity; increased flooding and shoreline erosion; and affected groundwater quality and quantity. Considering that of Wisconsin's estimated 5.3 million acres of remaining wetlands, about 25 percent are in counties adjacent to the Great Lakes and two unique wetland types only occur within Wisconsin's coastal zone, wetlands protection will be a high priority for Wisconsin's CZMP. There is a need to improve implementation of existing state and local regulatory and management programs by providing resources to improve monitoring of wetlands, training for staff and local officials, demonstration projects and public education. New wetland protection authorities should also be developed, tested and implemented.

Hazards

Over the years, hazards has increased the costs and risk of damage to coastal homes, businesses, and public facilities. This includes a combination of erosion of coastal bluffs, banks and beaches and the near shore coastal areas; flooding from upland runoff, high lake levels and storm-induced surges; and damage to shoreline structures from storm waves. The most notable threats to Wisconsin's coast are shoreline erosion along specific segments of the coast. The regulatory foundation for addressing coastal flooding and erosion needs to be improved.

List of Wisconsin §309 Projects for FY92 and FY93

Wetlands

WI(1) Wetlands Professional Certification Program, WF, FY93--\$68,000

(Wisconsin did not complete their §309 Strategy until 1993, so received no §309 funds in FY92; applied for but did not receive any PSM funds in FY93)

A Summary evaluations of the §309 project for Wisconsin is attached.

State Contact: Wisconsin CZMP
Department of Administration
P.O. Box 7868
101 East Wilson Street, 6th Floor
Madison, WI 53707-7868
608-266-7257 (Phone)
608-267-6931 (Fax)

Contact: Dea Larsen

Title: WI(1): Wetland Professional Certification Program, WF, FY93--
\$68,000

Project Description: The purpose of this project is to develop a mandatory wetlands professional certification program in Wisconsin by 1996. This project involves the following components: (1) development of educational materials to support the certification including a basic and advance guide to Wisconsin wetlands and a curriculum; (2) track legislation pertaining to wetlands professional certification; (3) training; (4) recommendations for certification provisions; and (5) legislation mandating a wetlands professional certification program.

Length of Project: 3 Years (October 1, 1993- September 30, 1996)

Project Benchmarks

FY93

- Basic Guide to Wisconsin's Wetlands and their Boundaries
- Curriculum to Teach Basic Guide
- Complete analysis of state wetlands legislation

FY94/FY95

- Training workshops for Basic Guide(94) and Advanced Guide (95)
- Encourage passage of Wetlands Professional Certification Legislation/
- Working Paper Recommendations for authority needed for certification program
- Advanced Guide to Wisconsin Wetlands
- Curriculum to Teach Advanced Guide

Project Completion Status

FY93 Work - Completed or On Schedule

Project Results

- a) *Proposed Program Change:* Not Accomplished-- project not scheduled for completion until 1996.
Adopt legislation mandating Wetlands Professional Certification Program (L)
- b) *Summary of Results/ Enhancement:* Project is not completed yet.
- c) *Project Products:*
 - 1) Basic Guide to Wisconsin Wetlands and their Boundaries
 - 2) Curriculum To Teach Basic Guide
- d) *Other Benefits:* Interest from Wisconsin's County Code Administrators in support of wetlands professional certification has lead to co-sponsorship of forums on certification.
- e) *Unexpected Results:* None
- f) *Impediments to Project Success:* None yet.
- g) *Is Project of National/State/Local Importance:* State and National as model for other states.

