



Coastal Bend Bays & Estuaries Program

2004 Implementation Review



Forward

The Coastal Bend Bays & Estuaries Program (CBBEP) is a local, nonprofit 501(c)(3) organization established in 1999 for the purpose of implementing the Comprehensive Conservation and Management Plan (CCMP), known locally as the Coastal Bend Bays Plan, or simply the, '*Bays Plan*'. The purpose of this document is to describe implementation progress. This document complies with the National Estuary Program 2004 Implementation Review Final Guidance.

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Implementation Review Executive Summary

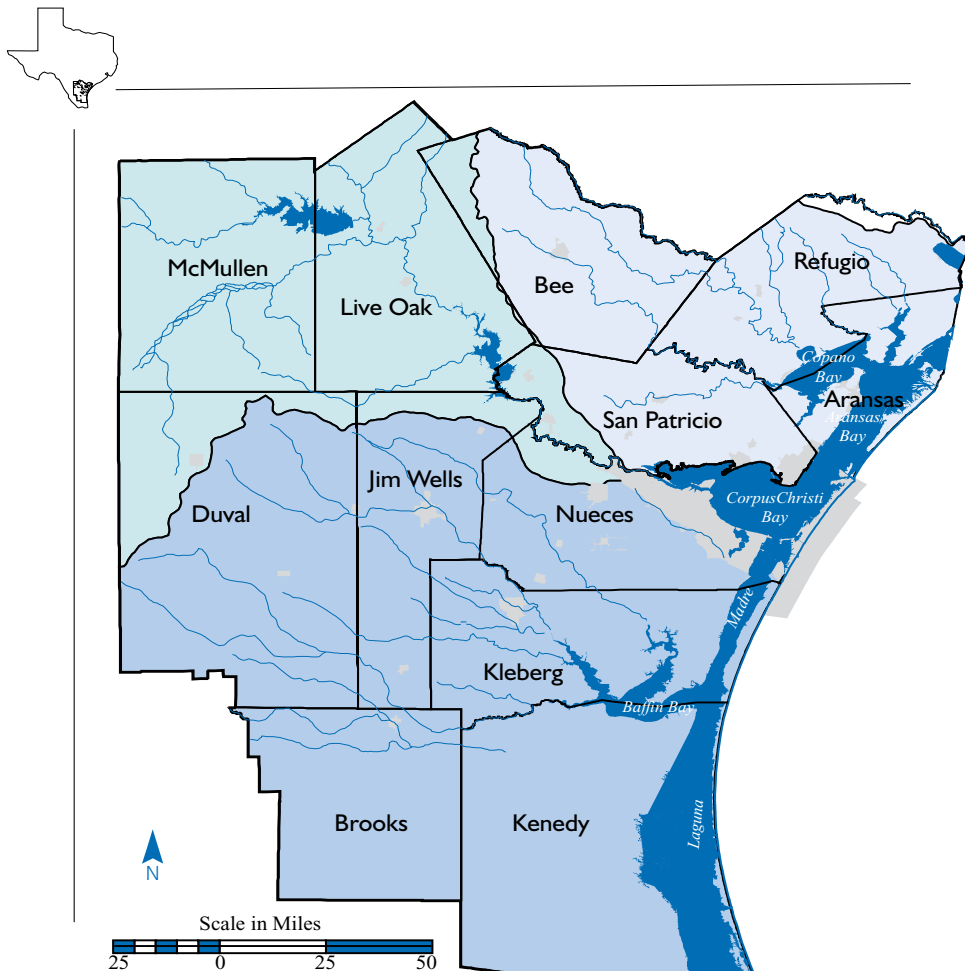
Fiscal Years 2001, 2002 & 2003

Introduction

The Coastal Bend Bays & Estuaries Program, Inc. (CBBEP) is a nonprofit 501(c)(3) organization. It was established in 1999 for the purpose of implementing the *Coastal Bend Bays Plan*, which was developed to protect and restore the health and productivity of the

bays and estuaries while supporting continued economic growth and public use for the next 20-50 years.

Figure 1. Coastal Bend Bays & Estuaries Program project area.



The CBBEP is a non-regulatory, voluntary partnership effort working with industry, environmental groups, bay users, local governments and resource managers. The CBBEP project area encompasses 12 counties coincident with the Coastal Bend Council of Governments and extends from the Land-Cut in the Laguna Madre, through the Corpus Christi Bay system, and north to the Aransas National Wildlife Refuge.

CBBEP Achievements

The end of fiscal year 2003 marked the anniversary of five successful years for the CBBEP. This report details the Program's activities during the past three fiscal years (FY01-03) and highlights *Bays Plan* implementation successes.

Habitat Protection

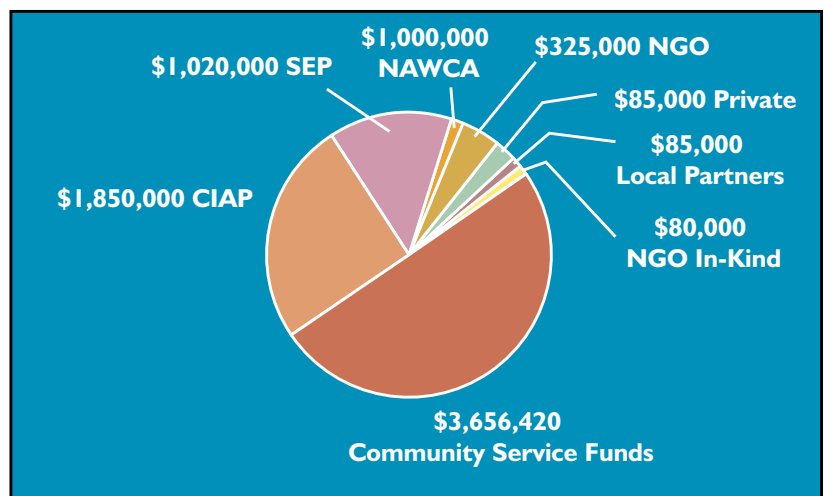
During this report period, the CBBEP and its partners successfully secured long-term protection of ecologically important habitat through direct land acquisitions, easements, and land management agreements. The CBBEP received funds from the Supplemental Environmental Project (SEP) and other grants to purchase more than 2,000 acres as part of the regional habitat protection strategy. These lands include Nueces River delta wetlands and brackish marshes on Mustang Island. As a result of these efforts, the habitat in these areas will be managed and protected in perpetuity by CBBEP partners the Nature Conservancy of Texas and the Coastal Bend Land Trust.

In addition to land acquisition efforts, the CBBEP is working to protect, improve and restore damaged habitats around the Coastal Bend. The Program initiated 10 projects during this report period to address ecologically important wetlands, rookery islands, and sea-grass beds. As a result, the Program and its partners have effected positive improvements for 254 acres in the Coastal Bend.

Investment in Community Stewardship

The CBBEP strengthened grassroots stewardship through investments in locally operated nongovernmental organizations (NGOs) including the Coastal Bend Bays Foundation, Coastal Bend Land Trust, Coalition for Animal Rescue and Rehabilitation and the Adopt-A-Wetland Program. Each of these organizations is committed to addressing one or more issues identified in the *Bays Plan*.

Figure 2. Habitat protection fund sources FY01-03.



The Coastal Bend Land Trust is the first and only locally operated land trust that focuses solely on the Coastal Bend. The need for a local land trust was identified in the *Bays Plan* and CBBEP funding helped establish the Coastal Bend Land Trust. A local land trust provides the necessary legal capacity and expertise to acquire and manage lands for maximum ecological benefits through direct acquisition and conservation easements.

The Coastal Bend Bays Foundation is a NGO with a long history in the region. It hosts monthly public forums on environmental issues of interest. The Foundation is also the lead organization for the annual Earth Day/Bay Day celebration, which attracts thousands of visitors each spring and serves to raise public awareness about the recreational and economic benefits of a healthy bay system. Both of these activities are identified in the *Bays Plan* and funding from the Program plays an instrumental role in continuing these events.

Local NGOs provide:

- ***Public Forums***
- ***Land Acquisition and Management***
- ***Animal Rescue & Rehabilitation***
- ***Wetlands Exhibits***
- ***Earth Day/Bay Day***
- ***Wildlife Photo Contest***
- ***Environmental Education***

Investment in NGOs is an important activity for the CBBEP. First, these organizations are implementing *Bays Plan* actions directly through their activities. Second, and perhaps more importantly, these organizations are building the institutional capacity for greater community stewardship. As these NGOs become better established, they create their own constituencies and thereby broaden support base conservation in the region. Investing in these groups will pay dividends for the future of our community and the environment.

Closing Data Gaps on Water and Sediment Quality

During this report period the CBBEP worked closely with state and federal resource agencies to implement the comprehensive *Surface Water and Sediment Quality Monitoring Project*. The project is one of the first large-scale efforts in the nation to use “*Ultra Clean*” water sampling and analysis technologies. The CBBEP is also funding an atmospheric deposition project to collect this data. The purpose of these projects is to fill baseline and episodic data gaps left by historical sampling. These data provide valuable new information allowing resource managers to more fully assess the condition of bay resources.

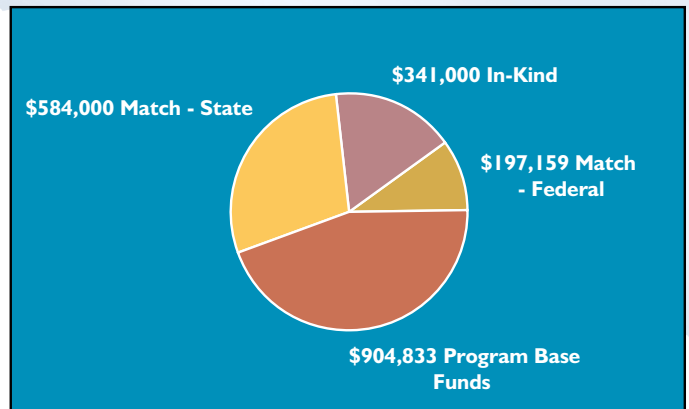
This project is also significant because it is highly collaborative. Partners include three state resources agencies, the USEPA, Corpus Christi Port Authority and local industries. One benefit of this strategy is that it allows other agencies and organizations to expand

the effort with either additional parameters or monitoring events. In addition, the sampling design and analysis is in compliance with the USEPA Environmental Monitoring and Assessment Program (EMAP)

Colonial Waterbirds

Colonial waterbirds and coastal shorebird populations are key environmental indicators of estuary health and productivity. During this report period, the CBBEP continued its effort to understand and implement management strategies to address the decline in some waterbird populations through the collaborative, *Colonial Waterbird / Avian Resources Project*. State, federal and nongovernmental resource agencies are helping with this project. The Program completed the *Coastal Bend Colonial Waterbird Management Plan*. Management strategies are already being implemented including improvements to nesting habitat and public education to avoid impacts to colonies.

Figure 3. Funding sources for water and sediment quality projects.



Stakeholder Activity – Supporting the *Bays Plan*

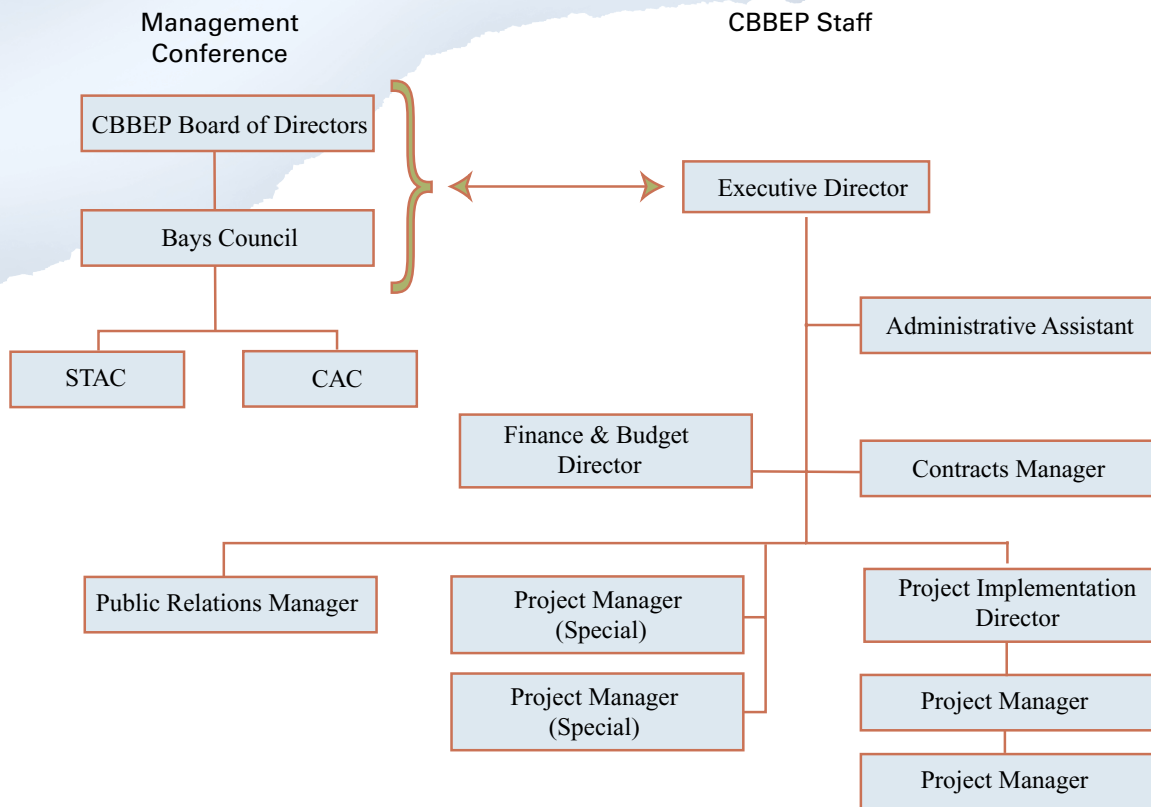
Administrative Support

The CBBEP is working with many stakeholders to plan and conduct projects to implement the *Bays Plan*. Key stakeholders are represented on the Program's governing committees and help guide the direction of the Program through participation in the development of the CBBEP Annual Workplan. The Bays Council collects input for annual projects from the general public, Program staff and advisory committees.

Organizational Structure – Increasing Community Involvement

In the five years since its inception, the CBBEP has worked to keep community stakeholders involved at all levels. However, it has been observed that while overall participation and support remains very high, the breadth of that support has narrowed. In response, the Program is conducting a critical evaluation of its advisory structure with the support of an outside consultant. The outcome of this effort will be the adoption of a

Figure 4. CBBEP organization chart for FY01-03.



new advisory and management structure. More importantly, the Program staff is recommit-
mitted to the meaningful engagement of stakeholders through the implementation of
recommendations outlined by the consultant.

The stakeholder involvement initiative is planned in two phases. The first phase more
fully engages current stakeholders by securely linking their efforts to the Program's
decision-making process. The second phase will expand the pool of stakeholders and
community representatives through active recruitment of new participants.

In the proposed advisory structure, the STAC and CAC are replaced by smaller, more
focused 'teams' that directly reflect the *Bays Plan* and include:

- Environmental Education and Outreach Team
- Human Uses Team
- Habitat and Living Resources Team
- Water and Sediment Quality Team
- Maritime Commerce and Dredging Team

In addition, a Coordinating Team has been proposed as a conduit for information between the advisory teams and the management structure.

Funding Support

Total Base Funding: \$3,365,962
Grants and Special Funds: \$10,604,600
Total Matching Funds: \$5,622,059
Total In-Kind: 2,369,963

One measure of support for implementing the *Bays Plan* is the amount of leveraged funds from stakeholders. According to the *USEPA 2003 Leveraging Report*, the CBBEP ranked near the top of 28 NEPs in leveraging stakeholder resources (primary role) for project implementation. Total base funding for projects was \$3.3 million for the report period. This was used to leverage additional matching and in-kind contributions totalling \$8 million. Along with grants and special funds which totalled \$10.6 million, the Program managed a sixfold increase in resource support over base funding.

The Texas General Land Office was the single largest matching fund supporter with contributions of \$1.9 million. Major in-kind contributors included the City of Corpus Christi with \$314,000 and the TAMU-CC Center for Coastal Studies with \$284,934. Below is a summary of project resources from all key stakeholder groups.

FEDERAL

Total Base Program Support (USEPA §320 Funds): \$1,175,000
Total Matching Funds: \$835,659
Total In-kind: \$15,000
Grants (NAWCA, CIAP): \$3,675,000
Total Federal Resources: \$4,525,659
Change From Last Report: 109% increase

Summary Support:

- Annual base funding from the USEPA increased 50 percent during this report period from \$325,000 in



FY01 to \$510,000 in FY03. Total base funding from the USEPA for the three year report period was \$1,175,000. And, of this amount only about \$30,000 was for administrative purposes, the rest going directly to implementing *Bays Plan* actions.

- In addition to base funds, the USEPA also matched funds on six projects through the Gulf of Mexico Program with a contribution totalling \$403,500. Another \$13,659 was provided for the CBBEP EMAP water quality monitoring project.
- The US Fish & Wildlife Service significantly increased their supported for *Bays Plan* implementation projects from \$30,000 last report period to \$228,500 this report period. The USFWS also provided a grant from the NAWCA funds for an additional \$1,000,000.

STATE

Total Base Program Support (TCEQ): \$2,555,000

Total Matching Funds: \$2,675,000

Total In-kind: \$210,000

Grants (CEPRA): \$1,690,000

Total State Resources: \$7,155,000

Change From Last Report: 72% increase

Summary Support:

- The Texas Commission on Environmental Quality (TCEQ) annual base funding was \$2,580,000. The total allocated directly to *Bays Plan* projects during the report period was approximately \$1,376,836. The TCEQ also provided an additional \$35,000 of in-kind support.
- The Texas General Land Office (TGLO) increased matching support for *Bays Plan* projects from \$1,405,000 during the previous report period to \$1,889,000 during this period - a 34 percent increase. The TGLO also provided \$1,690,000 in state grants (CEPRA) and \$2,675,000 in federal grant dollars (CIAP).
- The Texas Parks & Wildlife Department (TPWD) increased its matching support for CBBEP projects by over 1,000 percent from \$60,000 last report period to \$661,000 during this period. The TPWD also made in-kind contributions of \$50,000.

LOCAL GOVERNMENT

Total Base Program Support (Local Partners): \$975,000

Total Matching Funds: \$1,013,700

Total In-kind: \$504,000

Total Local Government Resources: \$2,491,700

Change From Last Report: 81% increase

Summary Support:

- The Program received annual base funding from the cities of Corpus Christi, Aransas Pass, Ingleside, Portland, Port Aransas, from the Port of Corpus Christi Authority and Port Industries of Corpus Christi, and from Nueces and San Patricio Counties.
- The City of Ingleside contributed \$15,000 in base funding and \$750,000 in matching funds during the period.
- The City of Corpus Christi contributed \$225,000 in base funding, \$85,000 in project matching funds, and \$314,000 in-kind during the period.
- The City of Port Aransas contributed \$15,000 in base funding, \$123,700 in matching funds and \$15,000 in-kind.

OTHER LOCAL ENTITIES (*Research Institutions, Businesses and Individuals, and NGOs*)

Total Research Institution Support: \$638,434

Total Individual and Business Support: \$1,236,229

Total NGO Support: \$994,000

Summary Support:

- Research institutions contributed \$80,000 in matching funds and \$558,434 in-kind contributions during the report period.
- Private individuals and businesses made significant in-kind contributions totaling \$918,529 as well as \$317,700 in matching funds during the period.
- In this group, NGOs provided the largest contribution of matching funds, totaling \$730,000. They also accounted for \$264,000 in-kind contributions.

- The Nature Conservancy contributed \$325,000 in matching funds and \$82,000 in-kind for land acquisition projects.
- Ducks Unlimited contributed \$125,000 in matching funds.

GRANTS & SPECIAL FUNDS

Total Grant Funding: \$5,365,000

Total Supplemental Environmental Project (SEP) Funds: \$1,583,180

Total Community Service Funds (CSF): \$3,656,420

Total SEP Funds Received: \$1,500,000

- All grants and special funds were targeted to implement Habitat & Living Resources Action Plans.

Public Outreach and Education – A Summary

The Program embarked on an ambitious outreach effort during this report period initiating 13 Public Outreach and Education (PEO) projects, many of which included multiple tasks. Outreach efforts made extensive use of the media and included development of the CBBEP Website, newsletter, brochure, and project summaries; public service announcements for television and radio regarding stormwater pollution, water conservation freshwater inflows; and television and print news coverage for CBBEP funded projects.

The Program supported numerous education projects such as teacher environmental education courses, National Ocean Science Bowl, Walk-Through-the-Wetlands and Keepers of the Coast. The CBBEP also actively supports and participates in public events including Earth Day/Bay Day, Coastal Bend Wildlife Photo Contest and the Boat Show. The Program also includes public outreach objectives into non-PEO projects. For example, there were 11 projects which included outreach as a secondary objective during this period.

Emerging and Identified Challenges

Environmental Challenges

The environmental challenges facing the Coastal Bend are essentially the same as they were when the *Bays Plan* was developed six years ago. Resource managers agree that habitat loss, water quality and freshwater inflows continue to be significant challenges that will not be easily solved. These issues are characterized by an increased demand on

limited resources by a growing population. The need for new and innovative management strategies to address these issues is becoming increasingly important especially as the rate of growth in region is expected to increase significantly.

Habitat Loss

The *Bays Plan* identifies several factors contributing to the destruction, degradation and fragmentation of Coastal Bend habitats including conversion to other land uses, dredge and fill activities, natural erosion, altered freshwater inflow and degraded water quality. The viability of living resource populations are also closely linked to habitat function and health.



The CBBEP is working with local, state, and federal resource agencies to address these challenges using several strategies. The Program allocated significant resources and has initiated 20 *Primary Projects* during this report period, specifically related to habitat protection, conservation or enhancement. For example, efforts to identify and protect the most ecologically important lands or those in danger of development are ongoing as part of the regional strategy for land acquisition and management through land trust agreements. Protecting land this way is expensive and can be done when funds become available through special grants, environmental settlements or punitive court orders. And, while this strategy requires significant front-end investment, it is the most effective means for securing the protection of important habitats. The Program also initiated 10 other projects that protect or enhance habitats at site-specific locations.

Freshwater Inflows – Managing Competing Demands

The *Bays Plan* sites several factors influencing the increased demand for freshwater from the Nueces River. During the last century, the Coastal Bend economy shifted from agricultural to oil and gas production, manufacturing, transportation and government services which together significantly increased freshwater demands



Today, the freshwater issue is contentious and many perceive the mandated inflows as governmental overregulation and unnecessary. The CBBEP is addressing this issue through several public outreach projects emphasizing water conservation and the economic benefits of healthy and productive bay system. The ecological side of the debate is also being addressed by the CBBEP through funded research to understand the relationship between inflows and bay productivity. The Nueces Bay Ichthyoplankton Monitoring project will characterize biological productivity as it relates to inflows. This project should provide valuable information relevant to the freshwater policies and may suggest ways to optimize the required inflows.

Water Quality – Keeping it Clean



Because water quality in the Coastal Bend is generally good to moderate, the focus of the *Bays Plan* is to stay ahead of water quality problems before they pose a risk to people or the environment. However where problems do exist, the CBBEP is working with other resources agencies to assess the cause and extent of these problems. The Coastal Bend Regional Water Quality Monitoring Program was established to collect baseline and event-based data consistent with ultra-clean sampling technologies and the USEPA EMAP methodologies for assessments. This program provides valuable water quality information for regional planners, natural resources managers and policy makers. It will

also be used to update the Coastal Bend total loadings model.

Additional water quality related projects initiated during this period include hypoxia monitoring, atmospheric deposition study, nonpoint source pollution prevention and improvement to failing OSSF systems.

Barriers to *Bays Plan* Implementation

The CBBEP recognizes two barriers limiting the full implementation of the *Bays Plan*. First is the difficulty in gaining region-wide public support for the conservation and protection of natural resources using public outreach and education strategies. This

challenge is not unique to the Coastal Bend, however a 25 percent adult illiteracy rate in Corpus Christi is a significant hindrance. Additionally, in a large number of household English is spoken as a second language further complicating outreach strategies.

The second barrier to full implementation is adequate funding. The Coastal Bend economy is not insulated from the national economic slowdown that has dogged the nation during the report period. Funding for the CBBEP, most notably from local governments has suffered setbacks and is directly attributed to the tightened fiscal policies now in place.



CBBEP Finance Plan

The enactment of the Texas Estuaries Act (TEA) by the Texas Legislature recognizes the Coastal Bend and Galveston Bay Estuary Programs and authorizes state funding as part of the biannual budget request by the Texas Commission on Environmental Quality (TCEQ). The TEA and the appropriations commitment by the state provide the CBBEP a solid financial foundation for the foreseeable future.

The CBBEP has also been entrusted to develop and manage projects funded by environmental enforcement actions and settlements. Supplemental Environmental Project (SEP) funds were a significant portion of Program funding during this report period with \$1.6 million allocated to the CBBEP. In addition, the Program was selected to administer \$3.6 million in community service project funding as stipulated by federal court order for corporate environmental infractions.

During this report period, the Program actively sought project funding through partnerships and grants. State, local government and private matching funds (excluding TCEQ base funding) totaled \$8.8 million. Included in this amount is \$4.0 million in Coastal Erosion Planning and Response Act (CERPA) grant funds, \$1.0 million in North American Wetlands Conservation Act (NAWCA) grant funds, and \$1.9 million in Coastal Impact Assistance Program (CIAP) funds.

These grants have increased CBBEP's visibility in the environmental community. The Program is recognized as a reliable agent for the implementation of environmental projects and will likely continue to receive special grants and funds as a result. For ex-

ample, the Program has been selected to administer funds and oversee the mitigation of seagrass lost during the construction of major dredging project – the Packery Channel Project.

Efforts to expand funding sources into new areas are also underway. The CBBEP is working to leverage its current successes into new ties with foundations and corporate donors. In addition, the CBBEP will continue to monitor the biannual state budget process and ensure that elected officials remain informed about the Programs’ successes in the Coastal Bend.

USEPA Funding

The USEPA increased base Program funding from \$325,000 in FY01 to \$510,000 in FY03. And while these funds can be used for administrative expenses such as salaries, the Program used the majority of funds for projects. This is possible because of the Program’s success in leveraging funds for administrative support from local partners and TCEQ.

During the report period, the USEPA base funds totalled \$1,175,000 of which \$30,000 was budgeted for travel. (See Appendices xx for a complete accounting of USEPA travel allocations.) The remaining funds were allocated to 21 CBBEP projects (See Table 2).

Table 1. USEPA base funding and budget allocations.

Annual Base Funding	Project Allocation	Travel	Total
FY01	\$315,000	\$10,000	\$325,000
FY02	\$330,000	\$10,000	\$340,000
FY03	\$500,000	\$10,000	\$510,000

Table 2. USEPA base funding for projects.

Project #	Primary Action	Secondary Action	EPA Base Funds
0102 Bay Debris Removal Demonstration Project - End of Pipe Collection System	BD-1	NPS-1	\$37,500
0201A & 0301A Whooping Crane Habitat Restoration & Erosion Protection	HLR-1	HLR-2	\$50,000
0201B & 0301B Goose Island State Park Habitat Restoration & Erosion Protection	HLR-1	HLR-2	\$80,500
0201C & 0301C Sunfish Island Habitat Restoration & Erosion Protection	HLR-1	HLR-2	\$125,000
0201D & 0301D Indian Point Habitat Restoration & Erosion Protection	HLR-1	HLR-2	\$200,000
0201E1 & 0301E1 Bayside Shoreline Restoration & Erosion Protection	HLR-1	HLR-2	\$28,000
0201E2 & 0301E2 Mission Bay Habitat Enhancement & Erosion Protection	HLR-1	HLR-2	\$3,000
0201E3 & 0301E3 Ingleside Habitat Enhancement & Erosion Protection	HLR-1	HLR-2	\$6,000
0201F & 0301F Port Aransas Habitat Protection & Erosion Control	HLR-1	HLR-2	\$50,000
0302 Colonial Waterbird Rookery Island Management	HLR-4	BTR-3, D-1, HLR-2	\$125,000
0108 & 0109 Surface Water and Bay Sediment Quality Monitoring	WSQ-1	PH-1, HLR-9, WSQ-3, WSQ-4, WSQ-5	\$251,500
0202 Coastal Bend Regional Water Quality Monitoring Program	PH-1, WSQ-1	WSQ-3-5	\$110,000
0110 Atmospheric Deposition Study	WSQ-3	WSQ-1	\$48,750
0111 NPS Pollution Prevention Project	NPS-1, NPS-2	PH-1, SM-1, SM-2, WSQ-1, PEO-1	\$40,269
0112 Rehabilitation of Failed OSSF (Septic Tanks) in Priority Areas	NPS-3	PH-1, SM-1, SM-2, WSQ-1	\$30,000
0203 Assist Nueces Delta Freshwater Inflow Ich. Monitoring	FW-1	WSQ-1, WSQ-3, WSQ-4, FW-2	\$20,000
0113 Develop & Implement Public Outreach Strategy	PEO-1	FW-4	\$37,500
0208 Walk-Through-the-Wetlands / Adopt-A-Wetland	PEO-1	BTR-1, PEO-2, PEO-3, PEO-5	\$15,000
0304 Walk-Through-The-Wetlands / Adopt-A-Wetland	PEO-1	BTR-1, PEO-2, PEO-3, PEO-5	\$25,000
0116 Bay Ambassador Program	PEO-3		\$37,500

Coastal Bend Bays Plan Implementation Tracking

This section describes the efforts of the Coastal Bend Bays & Estuaries Program and its partners to implement the *Bays Plan*. This document tracks implementation in three ways. First, Program projects from the report period (Workplans FY01-03) are described in summary including project partners, description, status, CBBEP leveraging role and resources. Secondly, projects initiated prior the report period (Workplans FY99-00) are listed at the beginning of each *Bays Plan* action. The inclusion of these projects, while not part of the review period, provide a more complete representation of the Program's overall efforts and success. And finally, stakeholder and Program staff activities are included for actions where CBBEP projects are limited or nonexistent. For a number of these projects, it is recognized that Program partners are best suited to implement these actions. Therefore, in these cases the Program's role may be limited to supporting an action through participation on a planning committee or by simply monitoring the implementation of a project.

This implementation tracking document is organized using the same six chapters used in the *Bays Plan* including, Human Uses, Maritime Commerce and Dredging, Habitat and Living Resources, Water and Sediment Quality, Freshwater Resources and Public Education and Outreach. Each chapter begins with a summary of the resources used to implement the Program projects. Also included is project area map with georeferenced site-specific projects. Non-site specific actions are listed on the side.

Each chapter contains one or more 'Action Plans' which include the 50 actions as listed in the *Bays Plan*. Actions are abbreviated with a letter and sequential number for identification. The Action Plans and their associated abbreviation are shown below:



- Bay Tourism and Recreation (BTR)
- Bay Debris (BD)
- Public Health (PH)
- Shoreline Management (SM)
- Maritime Commerce (MC)
- Dredging (D)
- Habitat and Living Resources (HLR)
- Water and Sediment Quality (WSQ)
- Nonpoint Source Management (NPS)
- Freshwater Resources (FW)
- Public Education and Outreach (PEO)

During this report period, the Program has been working on a total of 70 projects, 28 in FY01, 16 in FY02 and 22 in FY03. Projects are given a four digit designation. The first two digits indicate the fiscal year in which they were initiated. Projects are also designated to indicate the *Bays Plan* action they address. They can be designated as either a 'Primary Project' or 'Secondary Project' depending on the degree to which they address the goals of the specific actions. Table 3 provides a summary of the correlation between *Bays Plan* actions and Program projects.

The CBBEP and its partners are pleased to report significant progress implementing *Bays Plan* actions. Of the 50 actions in the plan, 29 are being addressed by one or more primary projects and 8 by one or more secondary projects during this report period. Additionally, since the Program began implementation, all but one action has been addressed by either the CBBEP or one of its partners.

This implementation tracking document uses the following terms.

Primary Project(s): Identifies the primary action(s) addressed by the project.

Secondary Project(s): Identifies additional *Bays Plan* action(s) addressed by the projects.

Leveraged Funds: Combined total of matching funds and in-kind contributions from sources other than USEPA §320 funds.

Partner Activities: Activities conducted by other organizations with or without Program participation to implement the *Bays Plan*.

Local Partners: Annually scheduled contributions for Program operations and

project support.

TCEQ Funds: Annually scheduled contributions for Program operations and project support.

Total Program Resources: Sum of Program expenditures for project implementation.

Total Project Resources: Sum of Program and non-Program resources allocated for project implementation.

Match: Support for CCMP implementation actions from identified partners in dollars. These may be Program or non-Program resources.

In-Kind: Support for CCMP implementation actions from identified partners in time or materials. These are always non-Program resources.

The implementation summary and report card was compiled from various sources including CBBEP staff, existing program documents and interviews with implementation partners. Project descriptions and partners were gathered from the CBBEP Work Plans (see attachments 3-5).

Table 3. Summary of FY01 Bays Plan implementation projects.

	0101	0102	0103	0104	0105	0106	0107	0108	0109	0110	0111	0112	0113	0115	0116	0117	0118	0120	0121	0122	0124	0125	0126	0127	0128	SEP-001	SEP-002	SEP-003
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Project Number

LEGEND

●

Bays Plan Primary Project

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Bays Plan Secondary Project

(Table continued next page)

Table 3. Summary of FY02 *Bays Plan* implementation projects.

[illegible]

LEGEND

- **Bays Plan Primary Project**
- **Bays Plan Secondary Project**

(Table continued next page)

Table 3. Summary of FY03 *Bays Plan* implementation projects.

	0301	0302	0303	0304	0305	0306	0307	0308	0309	0310	0312	0313	0314	0315	0316	0317	0318	0319	0320	0321	0322	0323
PEO-5																						
PEO-4																						
PEO-3																						
PEO-2																						
PEO-1																						
FW-4																						
FW-3																						
FW-2																						
FW-1																						
NPS-4																						
NPS-3																						
NPS-2																						
NPS-1																						
WSQ-5																						
WSQ-4																						
WSQ-3																						
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HLR-10																						
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HLR-5																						
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MC-8																						
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MC-2																						
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SM-3																						
SM-2																						
SM-1																						
PH-3																						
PH-2																						
PH-1																						
BD-1																						
BTR-4																						
BTR-3																						
BTR-2																						
BTR-1																						

Project Number

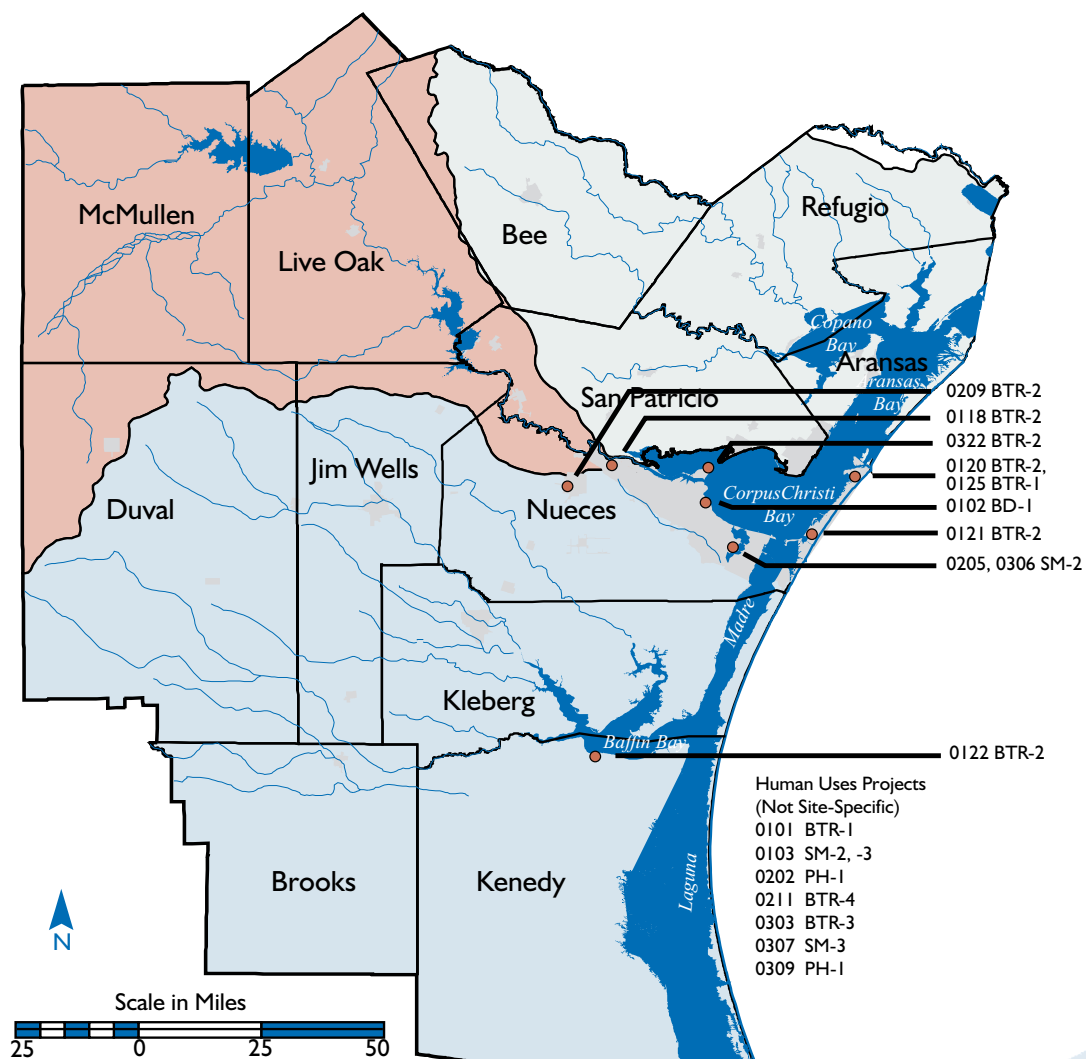
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Bays Plan Primary Project

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Bays Plan Secondary Project

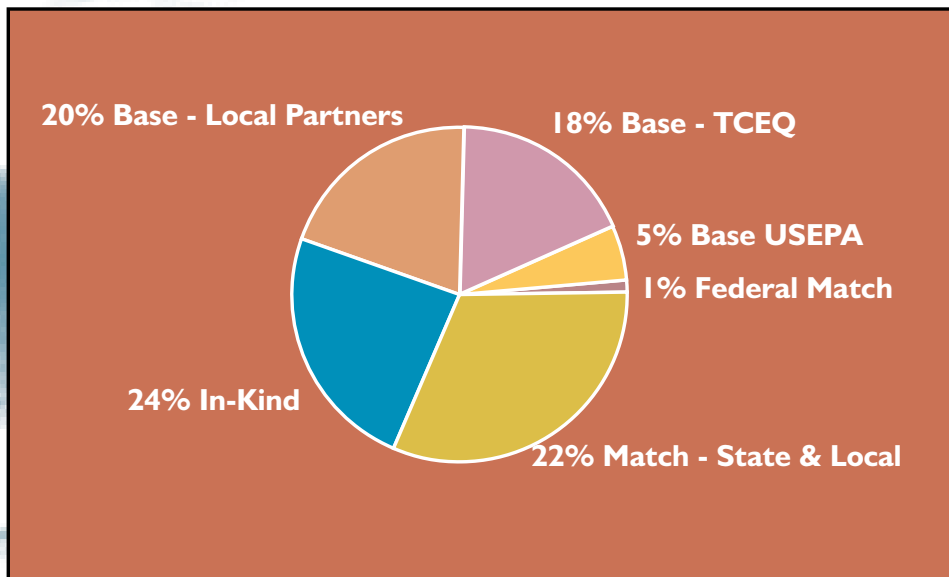
Figure 4. Human Uses project map.



Implementation Summary FY01-03

Number of Bays Plan Actions: 11
Number of Bays Plan Primary Projects: 17
USEPA §320 Funds: \$102,500
Leveraged Funds: \$1,837,7714
Leverage Ratio (Primary & Significant Role) 1:18

Figure 5. Human Uses funding summary.



Bay Tourism & Recreation **Action Implementation** **Plan**

BTR-1 Encourage and assist regional tourism organizations to adopt a “theme” of resource protection and stewardship in their promotion of tourism.

FY01-03

**Primary
Project(s)**

- 0101 Ecotourism Management and Stewardship Promotion Project (*complete*)
- 0125 - Paradise Pond Habitat Protection and Public Access Enhancement Project - Phase 2 (*complete*)

**Secondary
Project(s)**

- 0115 Various Public Education and Outreach Programs
- 0208 Walk-through-the-Wetlands / Adopt-A-Wetland
- 0215 Various Public Outreach and Education Projects
- 0304 Walk-Through-the-Wetlands / Adopt-A-Wetland
- 0313 Public Outreach Events and Activities

FY99-00

**Primary
Project(s)**

- 0014 – Ecotourism Strategic Plan and Support Materials

**Secondary
Project(s):**

- N/A

BTR-1 Primary Project

0101 – ECOTOURISM MANAGEMENT AND STEWARDSHIP PROMOTION PROJECT	
Partners:	City of Corpus Christi, Corpus Christi Convention and Visitors Bureau, and TAMU-CC Center for Ecotourism
Description:	This project will allow the Convention and Visitors Bureau (CVB) to integrate nature tourism into their regional strategy for promoting tourism. As part of this project the CVB will be sponsoring and promoting a number of nature based events designed to increase public awareness about the natural resources of the Coastal Bend. TAMU-CC Center for Ecotourism is working with the City of Corpus Christi and the CVB to assist in organizing events and providing on-line “bird cams” so that computer users everywhere can log onto a website to view birds at local hot spots.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$75,000
	Total Base Funding \$75,000
	In-kind - City of Corpus Christi \$14,000
	Total Project Resources \$89,000

BTR-1 Primary Project

0125 – PARADISE POND HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT PHASE 2	
Partners:	City of Port Aransas, Gulf Coast Bird Observatory
Description:	The site for this project provides important habitat for both migrating neotropical birds and resident/breeding bird species. One of the few natural freshwater ponds on Mustang Island, Paradise Pond and adjacent grasslands are important ecological resources and are part of the ecotourism strategy adopted by the City of Port Aransas. The city has acquired the pond and adjacent area to accommodate growing public use of the area. The project will fund the second phase of this project area and include a boardwalk, observation deck and interpretive signage
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$13,000
	Total Program Resources \$13,000
	In-kind – City of Port Aransas \$15,000
	Total Project Resources \$28,000

BTR-2

Provide for the appropriate number of improved, well-managed public access sites.

FY01-03

Primary Project(s)

- 0118 – Hazel Bazemore Park Habitat Protection and Public Access Enhancement Project (*complete*)
- 0120 – Paradise Pond Habitat Protection and Public Access Enhancement Project (*complete*)
- 0121 – Mollie Beattie Habitat Protection and Public Access Enhancement Project (*complete*)
- 0122 – Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project (*complete*)
- 0209 – Nueces County Wetlands Creation Project (*10 percent complete*)
- 0322 – Nueces Bay Public Access (*20 percent complete*)

Secondary Project(s)

- 0103 – Support Development of the Coastal Bend Land Trust
- 0124 – Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project
- 0125 – Paradise Pond Habitat Protection and Public Access Enhancement Project - Phase 2

FY99-00

Primary Project(s)

- 0007 – Corpus Christi Beach Shoreline Stabilization and Habitat Creation Project
- 0015 – Water Exchange Improvements and Wetland Enhancements in the Aransas Pass Nature Park
- 0017 – Pollywog Pond Bird Watching Areas Public Access Improvements

Secondary Project(s)

- 0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project
- 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan

BTR-2 Primary Project

0118 – HAZEL BAZEMORE PARK HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT	
Partners:	Nueces County
Description:	Hazel Bazemore Park is a facility owned and operated by Nueces County. Located along the Nueces River in the river delta it supports some wonderful riparian habitat and public use facilities. This project will provide for the construction of an observation tower overlooking the river and delta complex along with an educational kiosk and nature trail. As the official home of the "South Texas Hawk Watch" the observation tour will provide the public and research scientists an unobstructed view of the annual hawk migration.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$50,000
	Total Program Resources \$50,000
	In-kind - Nueces County \$50,000
	Total Project Resources \$100,000

BTR-2 Primary Project

0120 - PARADISE POND HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT	
Partners:	City of Port Aransas
Description:	One of the worst kept secret birding hot spots in the Coastal Bend, Paradise Pond is located entirely on private property. The City of Port Aransas will acquire the pond and adjoining grassland areas as a public park and with funding provided by the CBBEP put in boardwalks, educational signage, observation platforms and parking areas designed to keep the public out of the most sensitive areas to avoid disturbing the wildlife and their habitat. The private property owners are providing very favorable terms to the city in order to guarantee the future protection of this wildlife oasis.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$35,000
	Total Program Resources \$35,000
	Match – City of Port Aransas \$73,700
	Total Project Resources \$108,700

BTR-2 Primary Project

0121 - MOLLIE BEATTIE HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT	
Partners:	TAMU –CC Center for Coastal Studies, Texas General Land Office.
Description:	Located on the bay-side of Mustang Island, this important coastal habitat complex was previously barricaded to limit vehicular damage to sensitive wetlands. While the management plan for this site called for protecting wetlands from vehicular impacts it also addressed the need for providing better public access. This project will fund the installation of bollards so that the public can better access popular fishing areas. In addition, educational kiosks and observation platforms will be constructed to provide the public with an enhanced viewing opportunity.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$50,000
	Total Program Resources \$50,000
	In-kind - Center for Coastal Studies, TAMU-CC \$13,514
	Total Project Resources \$63,514

BTR-2 Primary Project

0122 – KAUFER-HUBERT MEMORIAL PARK HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT	
Partners:	TAMU-Kingsville, Kleberg County
Description:	Located on Baffin Bay the Kaufer-Hubert Park provides easy access to Baffin Bay. Due to prevalent wind direction and boat ramp location the adjacent seagrass beds have been impacted by recreational uses. The construction of an engineered “soft shoreline will improve the public use of the facilities while reducing erosion. The project will include interpretive signage (education) and bollards to protect habitat.
Project Status:	This project has been completed.
Leveraging Role	N/A
Resources:	TCEQ Funds \$50,000
	Total Program Resources \$50,000
	Total Project Resources \$50,000

BTR-2 & NPS-4 Primary Project

0209 – NUECES COUNTY WETLANDS CREATION PROJECT		
Partners:	Nueces County, Texas Parks & Wildlife Department, Nueces County Drainage District	
Description:	Nueces County proposes an innovative blend of public service, environmental protection and enhancement, and improved recreational resources through the creation of a series of stormwater retention ponds at the Robstown County Park. This constructed wetland will improve water quality by retaining and filtering stormwater runoff from adjacent agricultural fields. The ponds will also provide an excellent opportunity for public viewing of wildlife, other recreational benefits such as fishing, educational benefits via signage and learning opportunities, and ecological enhancement through the planting of native vegetation.	
Project Status:	Project is approximately 10% complete and should be completed by 8/31/04. The Project Manager is Amy Hanna.	
Leveraging Role	Primary	
	TCEQ Funds	\$50,000
	Total Program Resources	\$50,000
	Match – TPWD	\$50,000
	In-Kind – TPWD	\$50,000
	In-Kind - Nueces County Drainage District	\$50,000
	Total Project Resources	\$200,000

BTR-2 Primary Project

0322 – NUECES BAY PUBLIC ACCESS		
Partners:	Texas Parks & Wildlife Department, Nueces County, Saltwater-Fisheries Enhancement Association (SEA), Texas Department of Transportation	
Description:	This project will improve public access to bay resources by facilitating the repair of the courtesy dock, parking area and access lane that are an integral part of the Nueces Causeway Boat Ramp. The boat ramp is owned by Texas Parks and Wildlife Department (TPWD), but maintenance and repair funding is limited. The CBBEP along with other partners will provide the local match for a TPWD grant to facilitate the repairs. The CBBEP Funds will be utilized as part of a larger project that includes the SEA and TPWD funding.	
Project Status:	Project is approximately 20% complete and should be completed by 06/1/04. The Project Manager is Jim Bowman.	
Leveraging Role	Primary	
Resources:	USEPA – §320 Funds	\$15,000
	Total Program Resources	\$15,000
	Match – SEA	\$10,000
	Match – TPWD	\$106,000
	In-Kind – TxDOT	\$25,000
	In-Kind – Nueces County	\$25,000
	Total Project Resources	\$181,000

BTR-3 Develop and implement management strategies to reduce or avoid impacts from recreational uses.

FY01-03

- | | |
|-----------------------------|---|
| Primary Project(s) | <ul style="list-style-type: none"> 0303 – Public Education & Outreach Media Campaign (<i>27 percent complete</i>) |
| Secondary Project(s) | <ul style="list-style-type: none"> 0104 - Colonial Waterbird Rookery Island Management within the Coastal Bend Region 0125 - Paradise Pond Habitat Protection and Public Access Enhancement Project - Phase 2 0213 - Colonial Waterbird / Avian Resources Project 0302 - Colonial Waterbird Rookery Island Management |

FY99-00

- | | |
|-----------------------------|--|
| Primary Project(s) | <ul style="list-style-type: none"> 9906 & 0009 – Seagrass Protection and Restoration Project |
| Secondary Project(s) | <ul style="list-style-type: none"> 0017 – Pollywog Pond Bird Watching Areas Public Access Improvements 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan |

BTR-3 & FW-4 Primary Project

0303 – PUBLIC EDUCATION & OUTREACH MEDIA CAMPAIGN			
Partners:	CBBEP Staff, Texas Parks & Wildlife Department		
Description:	Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities. This project funds the creation and implementation of an education and media campaign to raise public awareness about freshwater inflows, nonpoint source pollution and to promote environmentally friendly recreational activities. The CBBEP will use local and regional media outlets including television, radio, print and websites to reach the public.		
Project Status:	Project is approximately 27% complete and should be completed by 07/31/04. The Project Manager Monika De La Garza.		
Leveraging Role	Primary		
	USEPA – \$320 Funds	\$50,000	
	Total Program Resources		\$50,000
	In-Kind – various media outlets	\$150,000	
	Total Project Resources		\$200,000

BTR-4 Enhance the recreational fishery through artificial reefs or restored natural reefs.

FY01-03	Primary Project(s)	<ul style="list-style-type: none"> 0211 – Reef Restoration Plan and Pilot Project (<i>95 percent complete</i>)
	Secondary Project(s)	<ul style="list-style-type: none"> SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird Rookery Islands In Nueces and Corpus Christi Bays

FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	N/A

BTR-4 Primary Project	0211 – REEF RESTORATION PLAN AND PILOT PROJECT		
	Partners:	TAMU-CC / Sea Grant, US Fish & Wildlife Service	
	Description:	Artificial reefs constructed to enhance recreational and commercial fishing have been used throughout the world for centuries. The Texas Artificial Reef Fishery Management Plan provides detailed guidance on reef development in Gulf Mexico state waters but does not include policy on artificial reef development in Texas bays and estuaries. Since the Texas artificial reef legislation specifically mentioned reef development in Texas coastal waters, the primary objective of this project is to provide background information to assist the TPWD in 1) deciding if an artificial reef policy is needed for coastal bays; and 2) provide background information to assist them in establishing such a policy and to establish a test reef in the CBBEP project area.	
	Project Status:	Project is approximately 95% complete and should be completed by 08/31/04. The Project Manager Leo Trevino.	
	Leveraging Role	Primary	
		Match - USFWS	\$22,500
		Total Program Resources	\$22,500
		In-Kind – TAMU-CC, Sea Grant	\$22,500
		Total Project Resources	\$45,000

Bay Debris Action Implementation Plan

BD-1 Reduce the amount of debris reaching the bays due to improper trash disposal or inadequate solid waste management.

FY01-03

Primary Project(s)

- 0102 – Bay Debris Removal Demonstration Project – End of Pipe Collection System (*complete*)

Secondary Project(s)

N/A

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

- 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan
- 0015 – Water Exchange Improvements and Wetland Enhancements in the Aransas Pass Nature Park

BD-1 Primary Project

0102 – BAY DEBRIS REMOVAL DEMONSTRATION PROJECT – END OF PIPE COLLECTION SYSTEM

Partners:	City of Corpus Christi and TAMU-Kingsville		
Description:	In conjunction with current efforts to keep debris out of the stormwater system, this project will help to keep the debris that still manages to find its way into the system from reaching the bay. This project will provide for the literature research, review of systems installed elsewhere in the country, and the basic engineering and site selection of a demonstration project. The demonstration project may be installed depending upon the cost of the system.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$12,500	
	USEPA - §320 Funds	\$37,500	
	Total Program Resources		\$50,000
	In-kind – City of Corpus Christi	\$25,000	
	Total Project Resources		\$75,000

Public Health Action Implementation Plan

PH-1 Facilitate a regional approach to recreational water quality management.

FY 01-03

Primary Project(s)

- 0202 – Coastal Bend Regional Water Quality Monitoring Program (completed).
- 0309 – Continue Water and Sediment Quality Monitoring (*80 percent complete*)

Secondary Project(s)

- 9904, 0018, & 0111 - Nonpoint Source Pollution Prevention Assistance Project
- 9907 & 0112 Rehabilitation of Failed OSSF in Priority Areas/ Assistance to Local Governments

FY 99-00

Primary Project(s)

- 0003 Regional Approach to Ensure Recreational Water Quality (Project Managed by TCEQ)

Secondary Project(s)

N/A

0202 – COASTAL BEND REGIONAL WATER QUALITY MONITORING PROGRAM													
Partners:	TAMU-CC Center for Coastal Studies, Texas Parks & Wildlife Department												
Description:	<p>The CBBEP is implementing a regional water quality monitoring program to assess the health of the estuary. This project establishes a routine, baseline-monitoring program that provides an ongoing assessment of water quality and addresses special areas of concern.</p> <p>A. Regional EMAP Based Water Quality Monitoring The EPA Office of Research and Development's Environmental Monitoring and Assessment Program (EMAP) probability based sampling design allows for the determination of current status, extent, changes, and trends in the water quality and ecological community of the CBBEP project area with a scientifically sound monitoring plan. The EMAP sampling program also helps determine the condition of resources, aids in evaluating environmental policies, and provides early identification of water quality concerns.</p> <p>B. Dissolved Oxygen Monitoring The upper Laguna Madre/Baffin Bay and Oso Creek/Oso Bay systems are on the 303(d) list for low dissolved oxygen and bacteria. This area of concern will be monitored for dissolved oxygen over a 24 hour period on a seasonal basis to help determine if the previously observed low levels are a response to natural conditions, or is indicative of anthropogenic impacts.</p> <p>C. Monitor Bacteria Levels at Priority Areas Local studies have found a relationship between rainfall in urban areas and elevated bacteria levels in bay waters. This effort will expand on these findings to monitor water quality in smaller bay and rural communities and will include wet and dry weather sampling.</p>												
Project Status:	This project has been completed.												
Leveraging Role	Primary												
Resources:	<table> <tr> <td>TCEQ Funds</td><td>\$45,000</td></tr> <tr> <td>USEPA – \$320 Funds</td><td>\$110,000</td></tr> <tr> <td>Total Program Resources</td><td>\$155,000</td></tr> <tr> <td>Match – Texas Parks & Wildlife Department</td><td>\$150,000</td></tr> <tr> <td>In-kind – Center for Coastal Studies, TAMU-CC</td><td>\$50,000</td></tr> <tr> <td>Total Project Resources</td><td>\$355,000</td></tr> </table>	TCEQ Funds	\$45,000	USEPA – \$320 Funds	\$110,000	Total Program Resources	\$155,000	Match – Texas Parks & Wildlife Department	\$150,000	In-kind – Center for Coastal Studies, TAMU-CC	\$50,000	Total Project Resources	\$355,000
TCEQ Funds	\$45,000												
USEPA – \$320 Funds	\$110,000												
Total Program Resources	\$155,000												
Match – Texas Parks & Wildlife Department	\$150,000												
In-kind – Center for Coastal Studies, TAMU-CC	\$50,000												
Total Project Resources	\$355,000												

0309 – CONTINUE WATER AND SEDIMENT QUALITY MONITORING

Partners:	TAMU-CC Center for Coastal Studies		
Description:	<p>The CBBEP is implementing a regional water quality monitoring program to assess the health of the estuary. This project establishes a routine, baseline-monitoring program that provides an ongoing assessment of water quality and addresses special areas of concern.</p> <p>A. Regional EMAP Based Water Quality Monitoring The EPA Office of Research and Development's Environmental Monitoring and Assessment Program (EMAP) probability based sampling design allows for the determination of current status, extent, changes, and trends in the water quality and ecological community of the CBBEP project area with a scientifically sound monitoring plan. The EMAP sampling program also helps determine the condition of resources, aids in evaluating environmental policies, and provides early identification of water quality concerns.</p> <p>B. Dissolved Oxygen Monitoring The upper Laguna Madre/Baffin Bay and Oso Creek/Oso Bay systems are on the 303(d) list for low dissolved oxygen and bacteria. This area of concern will be monitored for dissolved oxygen over a 24 hour period on a seasonal basis to help determine if the previously observed low levels are a response to natural conditions, or is indicative of anthropogenic impacts.</p> <p>C. Monitor Bacteria Levels at Priority Areas Local studies have found a relationship between rainfall in urban areas and elevated bacteria levels in bay waters. This effort will expand on these findings to monitor water quality in smaller bay and rural communities and will include wet and dry weather sampling.</p>		
Project Status:	Project is approximately 80% complete and should be completed by 07/31/04. The Project Manager is Jim Bowman.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$38,000	
	USEPA – GOMP	\$137,500	
	Total Program Resources		\$175,500
	Match – Texas Parks & Wildlife Department	\$150,000	
	In-kind – Center for Coastal Studies, TAMU-CC	\$50,000	
	Total Project Resources		\$375,500

PH-2 Conduct health risk assessment associated with consumption of seafood in suspect areas.

FY 01-03

Primary Project(s) N/A

Secondary Project(s) • 0002, 0108 & 0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region

FY 99-00

Primary Project(s) N/A

Secondary Project(s) N/A

Stakeholder Activity

- The Texas Department of Health conducted a risk-based characterization for finfish and shellfish in Nueces Bay in 2002.

PH-3 Develop and implement a method to collect epidemiological and injury data from regional and local health care providers

FY 01-03

Primary Project(s) N/A

Secondary Project(s) N/A

FY 99-00

Primary Project(s) N/A

Secondary Project(s) N/A

Shoreline Management Action Implementation Plan

SM-1 Conduct a shoreline inventory to gain a site-specific understanding of shoreline management needs.

FY01-03

**Primary
Project(s)**

N/A

**Secondary
Project(s)**

- SEP 002 – Habitat Acquisition and protection in San Patricio and Nueces Counties
- SEP 003 – Bay Shoreline Erosion Protection and Habitat Enhancement Project
- 9904, 0018, & 0111 – Nonpoint Source Pollution Prevention Assistance Project
- 9907 & 0112 – Rehabilitation of Failed OSSF in Priority Areas/ Assistance to Local Governments
- 0121 – Mollie Beattie Habitat Protection and Public Access Enhancement Project
- 0127 – Geographic Information System Development Project

FY99-00

**Primary
Project(s)**

N/A

**Secondary
Project(s)**

- 0007 – Corpus Christi Beach Shoreline Stabilization and Habitat Creation Project
- 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan
- 0013 – Sunset Lake Water Circulation Enhancement Project

SM-2 Assist local governments with shoreline management issues.

FY01-03

Primary Project(s)

- 0103 – Support Development of the Coastal Bend Land Trust (completed).
- 0205 & 0306 – Oso Bay / Oso Creek Wetlands Acquisition (*10 percent complete*)

Secondary Project(s)

- SEP 002 – Habitat Acquisition and protection in San Patricio and Nueces Counties
- 9904, 0018, & 0111 – Nonpoint Source Pollution Prevention Assistance Project
- 9907 & 0112 – Rehabilitation of Failed OSSF in Priority Areas/ Assistance to Local Governments

FY99-00

Primary Project(s)

- 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan

Secondary Project(s)

- 0007 – Corpus Christi Beach Shoreline Stabilization and Habitat Creation Project
- 0122 – Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project
- 0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project

SM-2, SM-3 Primary Project

0103 – SUPPORT DEVELOPMENT OF THE COASTAL BEND LAND TRUST	
Partners:	Coastal Bend Land Trust and the City of Corpus Christi
Description:	The first part of the project is focused on the continued growth and development of the Land Trust, with funds provided for habitat acquisition along the Oso shoreline.
Project Status:	This project has been completed.
Resources:	TCEQ Funds \$50,000
	Local Partners \$100,000
	Total Program Resources \$150,000
	Total Project Resources \$150,000

SM-2 Primary Project

0205 & 0306 – Oso BAY / Oso CREEK WETLANDS ACQUISITION	
Partners:	City of Corpus Christi, Texas Department of Transportation, Coastal Bend Land Trust
Description:	The purpose of this project is to acquire property/conservation easements along Oso Bay/Oso Creek, preserve habitat, maintain open space, and to ensure water quality protection. The City of Corpus Christi and the Coastal Bend Land Trust will identify land to be acquired for conservation and habitat protection and for construction of a hike and bike trail. Land for the hike and bike trail will provide improved public access to the waterfront and a buffer strip between Oso Bay/Oso Creek and residential/commercial development. The buffer strip will also provide open space and visual access to the Oso Creek/Oso Bay system, wildlife habitat and filter stormwater runoff. CBBEP funds will be used by the City of Corpus Christi as a 20% match for a State Transportation Enhancement Program (STEP) grant to achieve these multiple objectives.
Project Status:	Project is approximately 10% complete and should be completed by 12/31/04. The Project Manager is Amy Hanna.
Leveraging Role	Primary
Resources:	Local Partners \$200,000
	Total Program Resources \$200,000
	Match – TxDOT \$125,000
	In-kind – City of Corpus Christi \$25,000
	Total Project Resources \$350,000

SM-3

Establish a locally administered land trust to augment public access, sensitive habitat protection, and open space preservation.

FY01-03

**Primary
Project(s)**

- 0103 – Support Development of the Coastal Bend Land Trust (completed)
- 0307 – Continue to Support Development of Local Land Trust (completed)

**Secondary
Project(s)**

- 0205 & 0306 – Oso Bay / Oso Creek Wetlands Acquisition
- 0305 – Nueces Delta Habitat Acquisition Project

FY99-00

**Primary
Project(s)**

- 0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project

**Secondary
Project(s)**

N/A

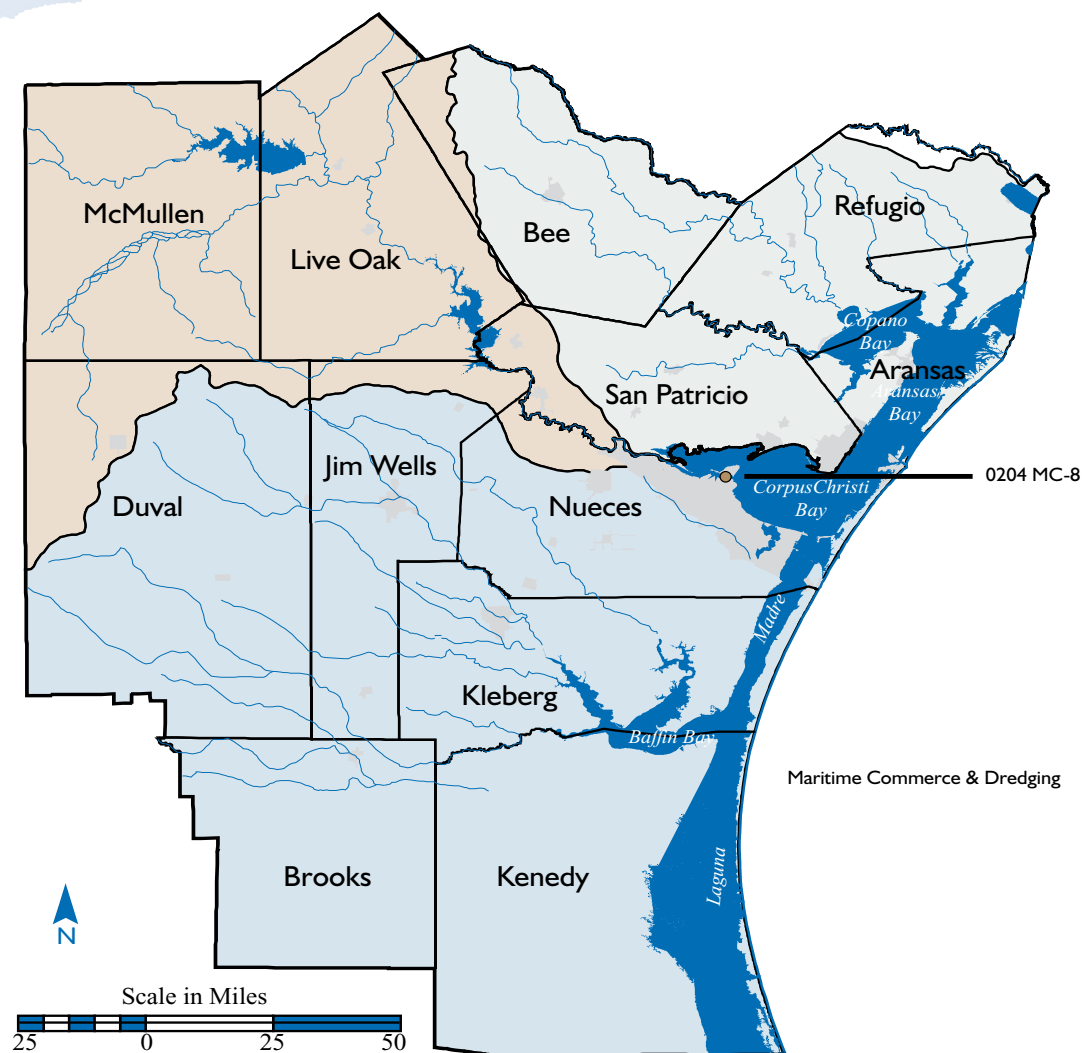
SM-2, SM-3 Primary Project

0103 – SUPPORT DEVELOPMENT OF THE COASTAL BEND LAND TRUST									
Partners:	Coastal Bend Land Trust and the City of Corpus Christi								
Description:	The first part of the project is focused on the continued growth and development of the Land Trust, with funds provided for habitat acquisition along the Oso shoreline.								
Project Status:	This project has been completed.								
Resources:	<table> <tr> <td>TCEQ Funds</td><td>\$50,000</td></tr> <tr> <td>Local Partners</td><td>\$100,000</td></tr> <tr> <td>Total Program Resources</td><td>\$150,000</td></tr> <tr> <td>Total Project Resources</td><td>\$150,000</td></tr> </table>	TCEQ Funds	\$50,000	Local Partners	\$100,000	Total Program Resources	\$150,000	Total Project Resources	\$150,000
TCEQ Funds	\$50,000								
Local Partners	\$100,000								
Total Program Resources	\$150,000								
Total Project Resources	\$150,000								

SM-3 Primary Project

0307 – CONTINUE TO SUPPORT DEVELOPMENT OF LOCAL LAND TRUST									
Partners:	Coastal Bend Land Trust								
Description:	During FY00 & FY01 the CBBEP provided the Coastal Bend Bays Foundation with funds to establish the Coastal Bend Land Trust (CBLT). The purpose of this project is to continue to assist the CBLT in developing and becoming firmly established within the community. The major objectives of this project are to continue informing landowners about the benefits of land conservation and conservation easements, continue acquiring property and/or easements for the purposes of conservation, and further establish the Board of Directors to guide financial development, identify new partnerships and possible sources of additional funding. The CBLT is required to find and secure a 3 to 1 match for CBBEP funds either through additional funding or through donations of property or conservation easements.								
Project Status:	Project has been completed.								
Leveraging Role	Primary								
	<table> <tr> <td>TCEQ Funds</td><td>\$50,000</td></tr> <tr> <td>Total Program Resources</td><td>\$50,000</td></tr> <tr> <td>Match – Coastal Bend Land Trust</td><td>\$250,000</td></tr> <tr> <td>Total Project Resources</td><td>\$300,000</td></tr> </table>	TCEQ Funds	\$50,000	Total Program Resources	\$50,000	Match – Coastal Bend Land Trust	\$250,000	Total Project Resources	\$300,000
TCEQ Funds	\$50,000								
Total Program Resources	\$50,000								
Match – Coastal Bend Land Trust	\$250,000								
Total Project Resources	\$300,000								

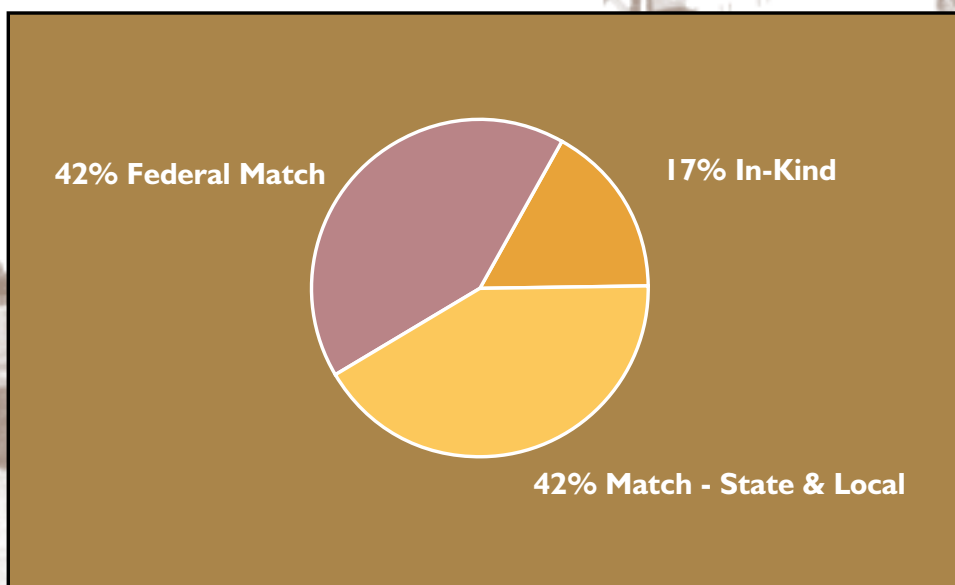
Figure 6. Maritime Commerce & Dredging project map.



Implementation Summary FY01-03

Number of *Bays Plan* Actions: 11
Number of *Bays Plan* Primary Projects: 1
USEPA §320 Funds: \$0
Leveraged Funds: \$60,000
Leverage Ratio (Primary & Significant Role) ALL

Figure 7. Maritime Commerce & Dredging funding summary.



Maritime Commerce Action Implementation Plan

MC-1 **Support construction of a 125 foot wide barge shelf on both sides of the ship channel to a depth of 15 feet.**

Stakeholder Activity

- Program partners Port of Corpus Christi Authority and US Army Corps of Engineers are pursuing this action item as part of a larger project that involves widening and deepening the Corpus Christi Ship Channel. Project progress this project during this report period includes the completion and approval of the feasibility study. All that remains to move forward is congressional appropriations for the channel improvements.

CBBEP Staff Activities

- CBBEP Project Implementation Director Leo Trevino is an regular participant on the Channel Improvements Project Advisory Committee which includes beneficial use of dredge material planning for the widening and deepening project

MC-2 **Modify the height, size, position, and light intensity of existing navigation ranges and add new ranges where necessary.**

Stakeholder Activity

- CBBEP Partners, Aransas-Corpus Christi Pilots, Port of Corpus Christi Authority and the US Coast Guard made significant progress on this action during the previous report period including improvements to existing ranges, construction of a sector light and improved power dependability. During this report period, these ranges were kept in excellent working condition.

MC-3 **Modernize the vessel traffic system and aids to navigation.**

Stakeholder Activity

- CBBEP Partners, Aransas-Corpus Christi Pilots, Port of Corpus Christi Authority and Texas Coastal Oceanic Observation Network have made significant progress on this action including improvement to weather, tide and sea state monitoring equipment

It is recognized that CBBEP partners are best suited to further the objectives of these actions. Therefore, Program efforts were focused on other implementation projects during this report period.

MC-4	Increase vessel operator training regarding safe operating procedures, rules of the road, and local navigation hazards.
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Stakeholder Activity

- The Aransas-Corpus Christi Pilots have adopted the pilot training schedule recommended by the American Pilots Association including mandatory Bridge Resource Management every three years.

MC-5	Maintain and improve regional oil spill response capability.
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Stakeholder Activity

- The Texas General Land Office, US Coast Guard Area Plan Committee, South Texas Coastal Zone Advisory Committee and Texas Railroad Commission continue to make improvements to their response capability through drills and equipment upgrades.

MC-6	Coordinate hazardous material spill response planning and resources to ensure adequate public protection.
-------------	--

Stakeholder Activity

- The US Coast Guard Area Plan Committee, South Texas Coastal Zone Advisory Committee and the City of Corpus Christi continue to make improvements to their response capability through drills and equipment upgrades.

MC-7	Establish an interagency forum to coordinate pipeline mapping and contingency planning.
-------------	--

Stakeholder Activity

- The City of Corpus Christi continues digitize oil and gas transmission lines within the city limits

It is recognized that CBBEP partners are best suited to further the objectives of these actions. Therefore, Program efforts were focused on other implementation projects during this report period.

MC-8	Prevent the introduction of non-native species through improved ballast water management.
-------------	--

FY01-03	Primary Project(s)	<ul style="list-style-type: none"> 0204 – Ballast Water / Nonindigenous Invasive Species Risk Assessment (completed)
	Secondary Project(s)	N/A

FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	N/A

MC-8 & HLR-10 Primary Project	0204 – BALLAST WATER / NONINDIGENOUS INVASIVE SPECIES RISK ASSESSMENT		
	Partners:	TAMU-CC Center for Coastal Studies, Port of Corpus Christi, USEPA Gulf of Mexico Program	
	Description:	The objective of this project is to preliminarily assess the risk of introduction of non-indigenous invasive species from ship ballast water from deep draft ships calling at the Port of Corpus Christi. The focus of this proposal is on aquatic nuisance species (ANS). The Port of Corpus Christi Authority (POCCA) has already initiated an effort to compile data on deep draft ship using the port system. This CBBEP project will fund the second phase and will review the ship data for consistency, then search, review and compile relevant biological, climatological and water quality information characteristic of the various ports of call visited by the deep draft ships prior to using the port system. The data will be formatted to facilitate accessibility and will help identify species for risk assessment.	
	Project Status:	This project has been completed.	
	Leveraging Role	Primary	
		USEPA – GOMP	\$25,000
		Total Program Resources	\$25,000
		Match – Port Industries of Corpus Christi	\$25,000
		In-Kind – TAMU-CC Center for Coastal Studies	\$10,000
		Total Project Resources	\$60,000

Dredging Action Implementation Plan

D-1 **Establish a proactive Beneficial Uses Group (BUG) to maximize beneficial uses of dredged material.**

FY01-03

Primary Project(s)

N/A

Secondary Project(s)

- 0012 & 0104 – Colonial Waterbird Rookery Island Management within the Coastal Bend Region
- 0213 – Colonial Waterbird / Avian Resources Project
- 0302 – Colonial Waterbird Rookery Island Management

FY99-00

Primary Project(s)

- 9903 & 0008 – Beneficial Uses of Dredged Material

Secondary Project(s)

N/A

Stakeholder Activities

- CBBEP partner, US Army Corps of Engineers completed an EIS and 50-year Dredge Material Management Plan during this period.

CBBEP Staff Activities

- Project Implementation Director Leo Trevino is an regular participant on the Channel Improvements Project Advisory Committee which addresses beneficial use of dredge material from the proposed widening and deepening project.
- Project Implementation Director Leo Trevino is actively involved with the Lower Laguna Madre Interagency Coordinating Team that considers long-term dredge material management for that region and provides advice for placement of maintenance dredge material.

D-2 Develop a long-term (50 year) dredged material management plan and strategy for the Corpus Christi Ship Channel.

FY01-03

Primary Project(s) N/A

Secondary Project(s) N/A

FY99-00

Primary Project(s) N/A

Secondary Project(s) • 9903 & 0008 – Beneficial Uses of Dredged Material

Stakeholder Activity

- Program partners Port of Corpus Christi Authority and US Army Corps of Engineers are pursuing this action item as part of a larger project that involves widening and deepening the Corpus Christi Ship Channel. Project progress this project during this report period includes the completion and approval of the feasibility study. All that remains to move forward is congressional appropriations for the channel improvements.
- Project Implementation Director Leo Trevino is an regular participant on the Channel Improvements Project Advisory Committee which addresses beneficial use of dredge material from the proposed widening and deepening project

D-3 Develop a long-term (50 year) dredged material management plan and strategy for the Gulf Intracoastal Waterway Channel subdivisions, and private and public marinas.		
FY01-03	Primary Project(s)	N/A
	Secondary Project(s)	N/A
FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	<ul style="list-style-type: none"> 9903 & 0008 – Beneficial Uses of Dredged Material

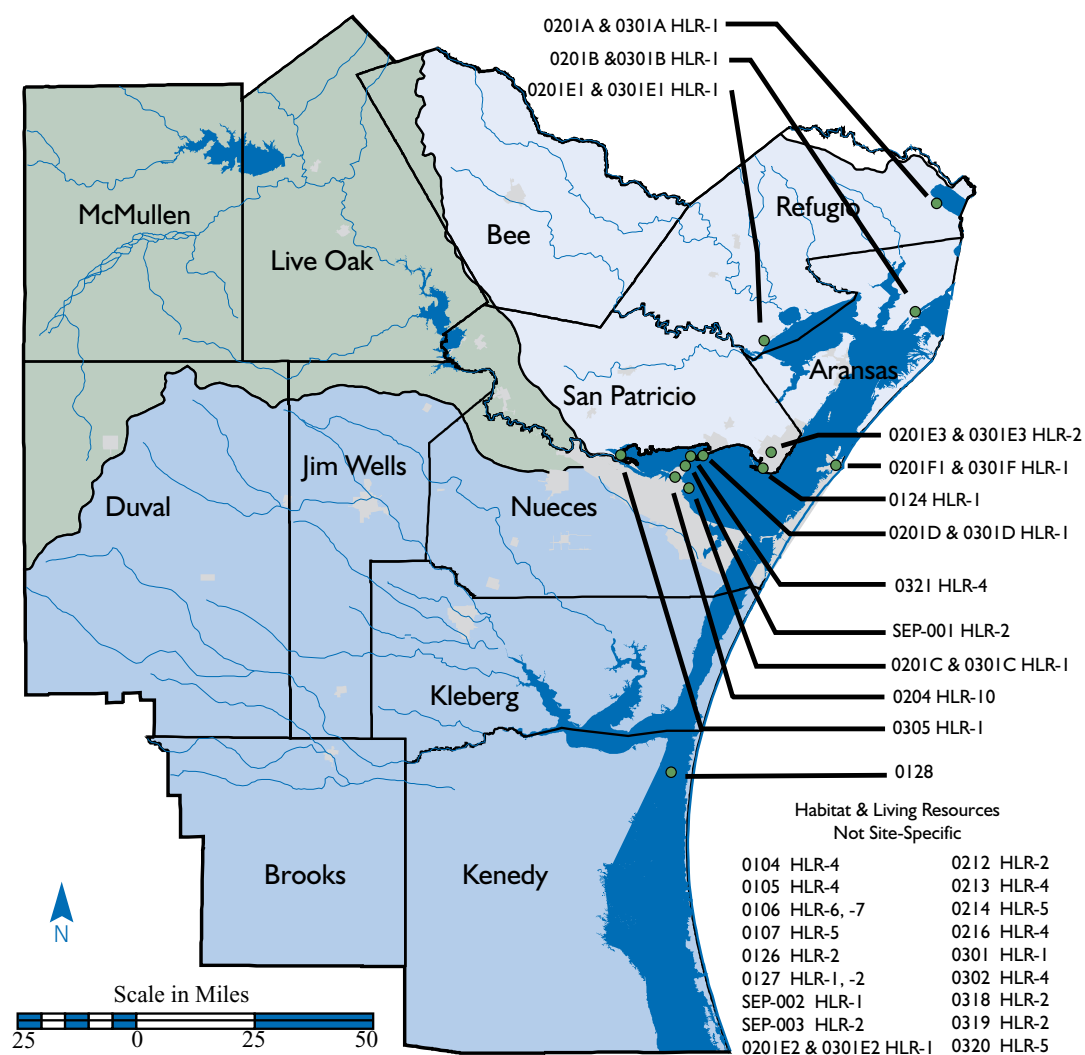
Stakeholder Activity

- The Port of Corpus Christi Authority and US Army Corps of Engineers are pursuing a related action item as part of a larger project that involves widening and deepening the Corpus Christi Ship Channel (see MC-1). The project scope has been expanded to include parts of the Intracoastal Waterway.

Program Staff Activity

- Project Implementation Director Leo Trevino is an regular participant on the Channel Improvements Project Advisory Committee which addresses beneficial use of dredge material from the proposed widening and deepening project
- Project Implementation Director Leo Trevino is also actively involved with the Lower Laguna Madre Interagency Coordinating Team which considers long-term dredge material management for that region

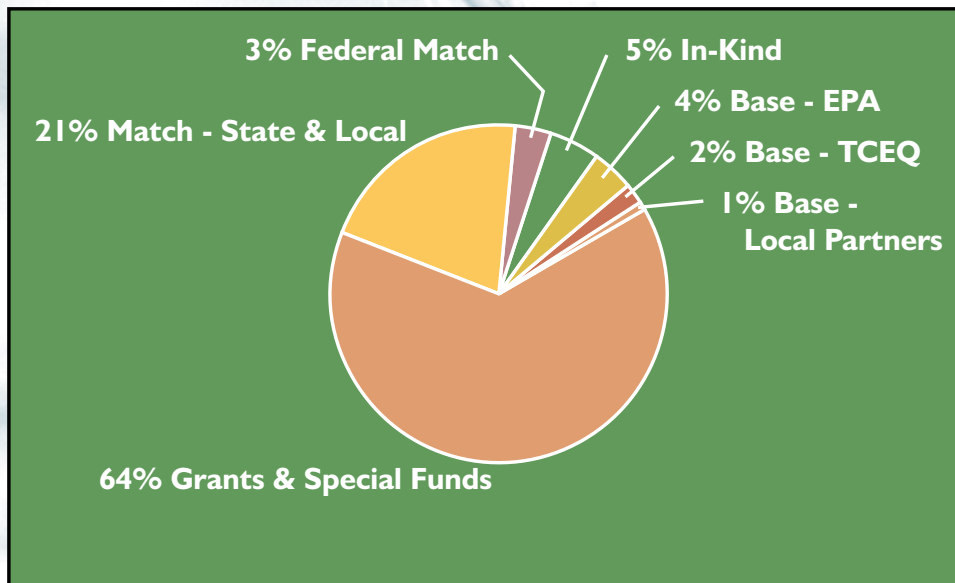
Figure 8. Habitat & Living Resources project map.



Implementation Summary FY01-03

Number of *Bays Plan* Actions: 10
Number of *Bays Plan* Primary Projects: 25
USEPA \$320 Funds: \$667,500
Leveraged Funds: \$15,837,149
Leverage Ratio (Primary & Significant Role) 1:23

Figure 9. Habitat & Living Resources funding summary.



Habitat & Living Resources Action Implementation Plan

HLR-1 Preserve functional, natural habitats of all major types.

FY01-03

Primary Project(s)

- SEP 002 – Habitat Acquisition and protection in San Patricio and Nueces Counties (completed)
- 0124 – Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project (completed)
- 0127 – Geographic Information System Development Project (completed)
- 0201A & 0301A – Aransas National Wildlife Refuge Whooping Crane Habitat Enhancement Project (*10 percent complete*)
- 0201B & 0301B – Goose Island State Park Habitat Restoration and Erosion Protection Project (*30 percent complete*)
- 0201C & 0301C – Sunfish Island Habitat Restoration and Erosion Protection Project (*30 percent complete*)
- 0201D & 0301D – Indian Point & Sunset Lake Recreation Area Habitat Restoration and Erosion Protection Project (*30 percent complete*)
- 0201E1 & 0301E1 – Bayside Shoreline Restoration and Erosion Protection Project (completed)
- 0201E2 & 0301E2 – Mission Bay Habitat Enhancement and Erosion Protection Project (completed)
- 0201E3 & 0301E3 – Ingleside Habitat Enhancement and Erosion Protection Project (completed)
- 0201F & 0301F – Port Aransas Habitat Enhancement and Erosion Protection Project (*10 percent complete*)
- 0305 – Nueces Delta Habitat Acquisition Project (*15 percent complete*)

Secondary Project(s)

- 0103 – Support Development of the Coastal Bend Land Trust
- 0120 – Paradise Pond Habitat Protection and Public Access Enhancement Project
- 0121 – Mollie Beattie Habitat Protection and Public Access Enhancement Project
- 0122 – Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project
- 0126 – Coastal Bend Bays & Estuaries Program Project Evaluation and Assessment Project
- 0128 – Croaker Hole Habitat Enhancement
- 0205 & 0306 – Oso Bay / Oso Creek Wetlands Acquisition
- 0307 – Continue to Support Development of Local Land Trust
- 0318 – Continue Development of Geographic Information System
- 0319 – Identify Potential Habitat Restoration & Enhancement Sites
- 0321 – Causeway Island Habitat Enhancement

Habitat & Living Resources **Action** Implementation **Plan**

FY99-00

**Primary
Project(s)**

N/A

**Secondary
Project(s)**

- 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan
- 9906 & 0009 – Seagrass Protection and Restoration Project
- 0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project

HLR-1 Primary Project

SEP 002 – HABITAT ACQUISITION AND PROTECTION IN SAN PATRICIO AND NUECES COUNTIES		
Partners:	The Nature Conservancy, Texas Commission on Environmental Quality, City of Corpus Christi, and US Fish & Wildlife Service	
Description:	The best way to protect habitat over the long-term is to own it. Using the tools of fee simple acquisition, habitat conservation easements, and land donations, the CBBEP along with The Nature Conservancy (TNC), is working to acquire top ecological value habitat or habitat in danger of being lost to development. More than 280 acres of bay shoreline wetlands and associated uplands were acquired on Mustang Island and are now being managed by TNC. With the City of Corpus Christi, the CBBEP has participated in a project that acquired nearly 36 acres of intertidal wetlands located on the Rincon Channel on Corpus Christi Beach. The TNC and CBBEP continue to work on protecting habitat at locations within the Nueces River Delta.	
Project Status:	This project has been completed.	
Leveraging Role	Primary	
Resources:	CBBEP SEP Funds	\$1,020,000
	Total Program Resources	\$1,020,000
	Match – USFWS (NAWCA)	\$1,000,000
	Match – City of Corpus Christi	\$85,000
	Match – The Nature Conservancy	\$325,000
	Match – Marcus Cohn land donation	\$180,000
	In-kind – The Nature Conservancy	\$80,000
	Total Project Resources	\$2,690,000

HLR-1 Primary Project


0124 – LAKE WHITNEY AND MCCAMPBELL SLOUGH WATERSHED HABITAT PROTECTION AND PUBLIC ACCESS IMPROVEMENT PROJECT																	
Partners:	City of Ingleside, San Patricio Drainage District, and Naismith Engineering																
Description:	The City and the Drainage District are responding to the needs of homeowners and businesses subjected to flooding and are seeking a way to address the drainage needs while also preserving the scenic beauty and ecological function of natural drainages. Another part of this project is to provide appropriate public access to these natural and created wetlands. Through the efforts of our partners we have been able to take advantage of a much larger, more costly project and develop strategies to protect and create wetland habitats.																
Project Status:	This project has been completed.																
Leveraging Role	Primary																
Resources:	<table><tr><td>TCEQ Funds</td><td>\$50,000</td><td></td></tr><tr><td>Total Program Resources</td><td></td><td>\$50,000</td></tr><tr><td>Match – City of Ingleside</td><td>\$750,000</td><td></td></tr><tr><td>Match – San Patricio County Drainage District</td><td>\$25,000</td><td></td></tr><tr><td>Total Project Resources</td><td></td><td>\$825,000</td></tr></table>		TCEQ Funds	\$50,000		Total Program Resources		\$50,000	Match – City of Ingleside	\$750,000		Match – San Patricio County Drainage District	\$25,000		Total Project Resources		\$825,000
TCEQ Funds	\$50,000																
Total Program Resources		\$50,000															
Match – City of Ingleside	\$750,000																
Match – San Patricio County Drainage District	\$25,000																
Total Project Resources		\$825,000															

HLR-1 & HLR-2 Primary Project

0127 – GEOGRAPHIC INFORMATION SYSTEM DEVELOPMENT PROJECT							
Partners:	TAMU-CC Center for Coastal Studies						
Description:	A GIS can track and assess programmatic and environmental status and trends. The information can be used to evaluate future CBBEP projects. It will also allow CBBEP staff to prepare maps, graphic presentations and information to the public. This project will compile a geographical database on past, present and future CBBEP projects. It will include metadata for each CBBEP project and <i>Coastal Bend Bays Plan</i> Action Items, financial information, performing party, sub-contractor(s), project manager, GPS coordinates, digital site photos and other information as necessary. The funding will also provide GIS training for CBBEP personnel.						
Project Status:	This project has been completed.						
Leveraging Role	Primary						
	<table><tr><td>TCEQ Funds</td><td>\$13,862</td><td></td></tr><tr><td>Total Program Resources</td><td></td><td>\$13,862</td></tr></table>	TCEQ Funds	\$13,862		Total Program Resources		\$13,862
TCEQ Funds	\$13,862						
Total Program Resources		\$13,862					
	<table><tr><td>In-Kind – Center for Coastal Studies</td><td>\$10,000</td><td></td></tr><tr><td>Total Project Resources</td><td></td><td>\$23,862</td></tr></table>	In-Kind – Center for Coastal Studies	\$10,000		Total Project Resources		\$23,862
In-Kind – Center for Coastal Studies	\$10,000						
Total Project Resources		\$23,862					

Project 0201A-F & 301A-F Note: This habitat restoration and protection project leverages state funds (TGLO-CEPRA). The \$200,000 allocated for these projects will leverage a total project budget of \$1.3 million. The following projects have been identified as high priority and the CBBEP is working with the TGLO to complete as many of the projects as possible.

HLR-1 Primary Project

0201A & 0301A – ARANSAS NATIONAL WILDLIFE REFUGE WHOOPING CRANE HABITAT ENHANCEMENT PROJECT		
Partners:	Aransas National Wildlife Refuge	
Description:	The wintering grounds of the endangered Whooping Crane are restricted to the Texas Gulf Coast at Aransas National Wildlife Refuge (ANWR) and vicinity. Lack of suitable foraging habitat can have a negative impact on Whooping Crane populations. This project will implement restoration efforts to ensure adequate habitat is available to wintering crane populations. Plans include the removal and suppression of invasive native and non-native species using several methods and treatments including roller chopping. Several months after roller chopping an area, it will be treated using prescribed fire. This combination roller chopping followed by fire has been found to be very effective in controlling running live oak and invasive species on the ANWR. Elsewhere in the treatment area, sites will be evaluated for removal of tallow and salt cedar using fire or chemical systems.	
Project Status:	Project is approximately 10% complete and should be completed by 06/01/04. The Project Manager is Amy Hanna.	
Leveraging Role	Primary	
	USEPA – \$320 Funds	\$50,000
	Total Program Resources	\$50,000
	Match - Aransas National Wildlife Refuge	\$40,000
	Total Project Resources	\$90,000

HLR-1 & HLR-2 Primary Project

0127 – GEOGRAPHIC INFORMATION SYSTEM DEVELOPMENT PROJECT							
Partners:	TAMU-CC Center for Coastal Studies						
Description:	A GIS can track and assess programmatic and environmental status and trends. The information can be used to evaluate future CBBEP projects. It will also allow CBBEP staff to prepare maps, graphic presentations and information to the public. This project will compile a geographical database on past, present and future CBBEP projects. It will include metadata for each CBBEP project and <i>Coastal Bend Bays Plan</i> Action Items, financial information, performing party, sub-contractor(s), project manager, GPS coordinates, digital site photos and other information as necessary. The funding will also provide GIS training for CBBEP personnel.						
Project Status:	This project has been completed.						
Leveraging Role	Primary						
	<table><tr><td>TCEQ Funds</td><td>\$13,862</td><td></td></tr><tr><td>Total Program Resources</td><td></td><td>\$13,862</td></tr></table>	TCEQ Funds	\$13,862		Total Program Resources		\$13,862
TCEQ Funds	\$13,862						
Total Program Resources		\$13,862					
	<table><tr><td>In-Kind – Center for Coastal Studies</td><td>\$10,000</td><td></td></tr><tr><td>Total Project Resources</td><td></td><td>\$23,862</td></tr></table>	In-Kind – Center for Coastal Studies	\$10,000		Total Project Resources		\$23,862
In-Kind – Center for Coastal Studies	\$10,000						
Total Project Resources		\$23,862					

Project 0201A-F & 301A-F Note: This habitat restoration and protection project leverages state funds (TGLO-CEPRA). The \$200,000 allocated for these projects will leverage a total project budget of \$1.3 million. The following projects have been identified as high priority and the CBBEP is working with the TGLO to complete as many of the projects as possible.

HLR-1 Primary Project

0201A & 0301A – ARANSAS NATIONAL WILDLIFE REFUGE WHOOPING CRANE HABITAT ENHANCEMENT PROJECT		
Partners:	Aransas National Wildlife Refuge	
Description:	The wintering grounds of the endangered Whooping Crane are restricted to the Texas Gulf Coast at Aransas National Wildlife Refuge (ANWR) and vicinity. Lack of suitable foraging habitat can have a negative impact on Whooping Crane populations. This project will implement restoration efforts to ensure adequate habitat is available to wintering crane populations. Plans include the removal and suppression of invasive native and non-native species using several methods and treatments including roller chopping. Several months after roller chopping an area, it will be treated using prescribed fire. This combination roller chopping followed by fire has been found to be very effective in controlling running live oak and invasive species on the ANWR. Elsewhere in the treatment area, sites will be evaluated for removal of tallow and salt cedar using fire or chemical systems.	
Project Status:	Project is approximately 10% complete and should be completed by 06/01/04. The Project Manager is Amy Hanna.	
Leveraging Role	Primary	
	USEPA – \$320 Funds	\$50,000
	Total Program Resources	\$50,000
	Match - Aransas National Wildlife Refuge	\$40,000
	Total Project Resources	\$90,000

HLR-1 Primary Project

0201B & 0301B – GOOSE ISLAND STATE PARK HABITAT RESTORATION AND EROSION PROTECTION PROJECT			
Partners:	Texas General Land Office, Texas Parks and Wildlife Department, US Fish & Wildlife Service, Aransas County		
Description:	Goose Island State Park is located on the southern tip of Lamar Peninsula and is bounded by Aransas and St. Charles bays. An offshore breakwater will be constructed to stabilize the eroding shoreline of Goose Island State Park. The breakwater will create a lagoon effect and enhance seagrass beds and marsh development along the shoreline. Future projects will be developed to restore the lost wetlands and wildlife habitat acreage.		
Project Status:	Project is approximately 30% complete and should be completed by 12/31/04. The Project Manager is Amy Hanna.		
Leveraging Role	Primary		
Resources:	USEPA – §320 Funds	\$80,500	
	Total Program Resources		\$80,500
	Match – TGLO (CIAP)	\$825,000	
	Match – TPWD	\$100,000	
	Match – USFWS	\$35,000	
	Match – Other Federal	\$15,000	
	Match – Neptune Harbor	\$15,000	
	Total Project Resources		\$1,700,500

HLR-1 Primary Project

0201C & 0301C – SUNFISH ISLAND HABITAT RESTORATION AND EROSION PROTECTION PROJECT			
Partners:	Texas General Land Office, City of Corpus Christi		
Description:	Sunfish Island, is a colonial waterbird rookery located on a portion of the breakwater protecting the Corpus Christi Municipal Marina. The island is eroding due to wave action which is threatening to cleave the island. This project will restore the island habitat and protect it from further erosion.		
Project Status:	Project is approximately 30% complete and should be completed by 12/31/04. The Project Manager is Jim Bowman.		
Leveraging Role	Primary		
Resources:	USEPA – §320 Funds	\$125,000	
	Total Program Resources		\$125,000
	Match – TGLO	\$750,000	
	In-Kind – City of Corpus Christi	\$250,000	
	Total Project Resources		\$1,125,000

HLR-1 Primary Project

0201D & 0301D – INDIAN POINT & SUNSET LAKE RECREATION AREA HABITAT RESTORATION AND EROSION PROTECTION PROJECT		
Partners:	Texas General Land Office, City of Portland	
Description:	The Indian Point & Sunset Lake Recreational Area is the largest government acquisition of wetlands in this area and includes a high quality saltwater system with coastal wetland marsh and sandflat habitat. Shoreline erosion threatens the marshes along the southern fringe of Indian Point. This project will stabilize the shoreline and protect emergent marsh and shell ridge habitats through construction of an offshore breakwater.	
Project Status:	Project is approximately 30% complete and should be completed by 12/31/04. The Project Manager is Amy Hanna.	
Leveraging Role	Primary	
	USEPA – §320 Funds	\$200,000
	Total Program Resources	\$200,000
	Match – Texas General Land Office	\$800,000
	In-Kind – City of Portland	\$50,000
	Total Project Resources	\$1,050,000

HLR-1 Primary Project

0201E1 & 0301E1 – BAYSIDE SHORELINE RESTORATION AND EROSION PROTECTION PROJECT		
Partners:	Texas General Land Office	
Description:	This project uses smooth cord grass (<i>Spartina alterniflora</i>) to create an energy buffer along eroding bay shorelines in Nueces, Aransas and Copano Bays. Other erosion control techniques may be employed. The Natural Resource Conservation Service (NRCS) provides technical support and direct project management assistance.	
Project Status:	This project has been completed.	
Leveraging Role	Primary	
Resources:	USEPA – §320 Funds	\$28,000
	Total Program Resources	\$28,000
	Match – TGLO	\$59,000
	Total Project Resources	\$87,000

HLR-1 Primary Project

0201E2 & 0301E2 – MISSION BAY HABITAT ENHANCEMENT AND EROSION PROTECTION PROJECT			
Partners:	Texas General Land Office		
Description:	This project uses smooth cord grass (<i>Spartina alterniflora</i>) to create an energy buffer along eroding bay shorelines in Nueces, Aransas and Copano Bays. Other erosion control techniques may be employed. The Natural Resource Conservation Service (NRCS) provides technical support and direct project management assistance.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
	USEPA – §320 Funds	\$3,000	
	Total Program Resources		\$3,000
	Match – TGLO	\$17,000	
	Total Project Resources		\$20,000

HLR-1 Primary Project

0201E3 & 0301E3 – INGLESIDE HABITAT ENHANCEMENT AND EROSION PROTECTION PROJECT			
Partners:	Texas General Land Office		
Description:	This project uses smooth cord grass (<i>Spartina alterniflora</i>) to create an energy buffer along eroding bay shorelines in Nueces, Aransas and Copano Bays. Other erosion control techniques may be employed. The Natural Resource Conservation Service (NRCS) provides technical support and direct project management assistance.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
	USEPA – §320 Funds	\$6,000	
	Total Program Resources		\$6,000
	Match – TGLO	\$14,000	
	Total Project Resources		\$20,000

HLR-1 Primary Project

0201F & 0301F – PORT ARANSAS HABITAT ENHANCEMENT AND EROSION PROTECTION PROJECT			
Partners:	City of Port Aransas		
Description:	This project will stabilize the eroding shoreline and reduce the loss of emergent marsh habitat along the main ship channel where the City of Port Aransas plans to develop a low impact recreational park. The city will also acquire property to protect wetlands and wildlife habitat. This project, and a planned phase II project, will provide protection for important wetlands.		
Project Status:	Project is approximately 10% complete and should be completed by 12/31/04. The Project Manager is Amy Hanna.		
Leveraging Role	Primary		
	USEPA – §320 Funds	\$50,000	
	Total Program Resources		\$50,000
	Match – City of Port Aransas	\$50,000	
	Total Project Resources		\$100,000

HLR-1 Priority Project

0305 – NUECES DELTA HABITAT ACQUISITION PROJECT			
Partners:	CBBEP Staff, Texas General Land Office		
Description:	Long-term protection of the Nueces River Delta is best accomplished through acquisition, including either outright ownership or the purchase of conservation easements. Once these areas are protected by acquisition, future projects can implement management strategies to restore the value and functionality of the habitat. The CBBEP along with The Nature Conservancy (TNC), and Coastal Bend Land Trust is working to acquire habitat that has top ecological value or is in danger of being lost to development.		
Project Status:	Project is approximately 15% complete and should be completed by 12/31/04. The Project Manager is Amy Hanna.		
Leveraging Role	Primary		
	Community Service Funds	\$3,656,420	\$
	Texas General Land Office – CIAP	\$1,850,000	\$
	Total Program Resources		\$5,506,420
	Total Project Resources		\$5,506,420

HLR-2

Create new habitats and/or restore degraded habitats where feasible.

FY01-03

Primary
Project(s)

- SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird Rookery Islands In Nueces and Corpus Christi Bays (completed)
 - SEP 003 Bay Shoreline Erosion Protection and Habitat Enhancement Project (completed)
 - 0126 – Coastal Bend Bays & Estuaries Program Project Evaluation and Assessment Project (completed)
 - 0127 – Geographic Information System Development Project (completed)
 - 0128 – Croaker Hole Habitat Enhancement (completed)
 - 0212 – Private Lands Riparian Habitat Restoration (*60 percent complete*)
 - 0318 – Continue Development of Geographic Information System (completed)
 - 0319 – Identify Potential Habitat Restoration & Enhancement Sites (completed)
-

Secondary Project(s)	<ul style="list-style-type: none"> • 0012 & 0104 – Colonial Waterbird Rookery Island Management within the Coastal Bend Region • 0120 – Paradise Pond Habitat Protection and Public Access Enhancement Project • 0121 – Mollie Beattie Habitat Protection and Public Access Enhancement Project • 0122 – Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project • 0124 – Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project • 0201A & 0301A – Aransas National Wildlife Refuge Whooping Crane Habitat Enhancement Project • 0201B & 0301B – Goose Island State Park Habitat Restoration and Erosion Protection Project • 0201C & 0301C – Sunfish Island Habitat Restoration and Erosion Protection Project • 0201D & 0301D – Indian Point & Sunset Lake Recreation Area Habitat Restoration and Erosion Protection Project • 0201E1 & 0301E1 – Bayside Shoreline Restoration and Erosion Protection Project • 0201E2 & 0301E2 – Mission Bay Habitat Enhancement and Erosion Protection Project • 0201E3 & 0301E3 – Ingleside Habitat Enhancement and Erosion Protection Project • 0201F & 0301F – Port Aransas Habitat Enhancement and Erosion Protection Project • 0205 & 0306 – Oso Bay / Oso Creek Wetlands Acquisition • 0209 – Nueces County Wetlands Creation Project • 0211 – Reef Restoration Plan and Pilot Project • 0213 – Colonial Waterbird / Avian Resources Project • 0302 – Colonial Waterbird Rookery Island Management • 0305 – Nueces Delta Habitat Acquisition Project • 0307 – Continue to Support Development of Local Land Trust • 0321 – Causeway Island Habitat Enhancement
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FY99-01

Primary Project(s)	<ul style="list-style-type: none"> • 0013 – Sunset Lake Water Circulation Enhancement Project • 0015 – Water Exchange Improvements and Wetland Enhancements in the Aransas Pass Nature Park • 0016 – Constructed Wetlands in the Baffin Bay Drainage Basin
Secondary Project(s)	<ul style="list-style-type: none"> • 0007 – Corpus Christi Beach Shoreline Stabilization and Habitat Creation Project • 0017 – Pollywog Pond Bird Watching Areas Public Access Improvements • 9906 & 0009 – Seagrass Protection and Restoration Project • 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan

FY99-00

**Primary
Project(s)**

N/A

**Secondary
Project(s)**

- 9902, 9908, & 0006 – City of Aransas Pass Shoreline Master Plan
- 9906 & 0009 – Seagrass Protection and Restoration Project
- 0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project

HLR-2 Primary Project

SEP 001 ENHANCEMENT OF HARD SUBSTRATE REEFS AND COLONIAL WATERBIRD ROOKERY ISLANDS IN NUECES AND CORPUS CHRISTI BAYS	
Partners:	Texas General Land Office
Description:	In 1999 the Texas legislature passed and funded the Coastal Erosion Planning and Response Act to address a number of public infrastructure issues including the loss of fish and wildlife habitat due to erosion. This project will protect as many as six existing rookery islands and provide for the restoration of approximately six acres of rookery island habitat in Nueces Bay. Due to engineering problems, the hard substrate reef was placed in shallow areas (< 2') and our desire to create deepwater reefs was not accomplished with this particular project.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	CBBEP SEP Funds \$388,180
	Total Program Resources \$388,180
	Match – Texas General Land Office - CEPRA \$1,165,000
	Total Project Resources \$1,553,180

HLR-2 Primary Project

SEP 003 BAY SHORELINE EROSION PROTECTION AND HABITAT ENHANCEMENT PROJECT	
Partners:	Texas General Land Office, USDA-Natural Resources Conservation Services, Texas State Soil and Water Conservation Board
Description:	This project specifically addresses shoreline erosion in Nueces, Corpus Christi, Redfish and Copano Bays through the planting of smooth cord grass along eroding shorelines. In addition to the shoreline erosion protection a significant amount of emergent marsh habitat will be created. This created habitat will help to replace natural emergent marsh habitat lost to natural and anthropogenic causes.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	CBBEP SEP Funds \$25,000
	Total Program Resources \$25,000
	Match – Texas General Land Office - CEPRA \$75,000
	Total Project Resources \$100,000

HLR-2 Primary Project

0126 – COASTAL BEND BAYS & ESTUARIES PROGRAM PROJECT EVALUATION AND ASSESSMENT PROJECT	
Partners:	TAMU-CC Center for Coastal Studies
Description:	This project assesses past and present CBBEP projects and provides measures of success and monitoring strategies from available information. It includes recommendations to increase environmental linkages among past and future projects, and identifies action items in the Coastal Bend Bays Plan that have not been addressed.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$7,115
	Total Program Resources \$7,115
	In-Kind – Center for Coastal Studies \$10,000
	Total Project Resources \$17,115

HLR-1 & HLR-2 Primary Project

0127 – GEOGRAPHIC INFORMATION SYSTEM DEVELOPMENT PROJECT	
Partners:	TAMU-CC Center for Coastal Studies
Description:	A GIS can track and assess programmatic and environmental status and trends. The information can be used to evaluate future CBBEP projects. It will also allow CBBEP staff to prepare maps, graphic presentations and information to the public. This project will compile a geographical database on past, present and future CBBEP projects. It will include metadata for each CBBEP project and <i>Coastal Bend Bays Plan</i> Action Items, financial information, performing party, sub-contractor(s), project manager, GPS coordinates, digital site photos and other information as necessary. The funding will also provide GIS training for CBBEP personnel.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$13,862
	Total Program Resources \$13,862
	In-Kind – Center for Coastal Studies \$10,000
	Total Project Resources \$23,862

HLR-2 Primary Project

0318 – CONTINUE DEVELOPMENT OF GEOGRAPHIC INFORMATION SYSTEM	
Partners:	Texas A&M University–Corpus Christi
Description:	A GIS can efficiently track and assess programmatic and environmental status and trends. The purpose of this project is to continue collecting information that can be used to assess and critically evaluate future CBBEP projects. It will also allow CBBEP staff to prepare maps and graphic presentation and proposal materials and provide information to the public. This project will compile a geographical database focusing on past, present and future CBBEP projects. The database will include metadata for each CBBEP project and <i>Coastal Bend Bays Plan</i> Action Items, financial information, performing party, sub-contractor(s), project manager, GPS coordinates, digital site photos and other information as necessary. The funding will also provide GIS training for CBBEP personnel.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$28,652
	Total Program Resources \$28,652
	In-Kind – Center for Coastal Studies, TAMU-CC \$28,000
	Total Project Resources \$56,652

HLR-2 Primary Project

0319 – IDENTIFY POTENTIAL HABITAT RESTORATION & ENHANCEMENT SITES	
Partners:	TAMU-CC Center for Coastal Studies
Description:	There are many efforts within the Coastal Bend to protect wetland and upland habitat. This project collects data regarding conservation projects conducted by other entities including project goals, funding sources, budgets, long-term plans, GPS coordinates and digital site photos. Frequently funds become available to the CBBEP for wetland conservation but these funding opportunities often have a narrow window to develop project proposals. The project will address this need through the identification of wetland restoration and enhancement sites and develop project designs for the sites. Designs include project descriptions, goals and objectives, aerial and ground photographs and maps.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$20,000
	Total Program Resources \$20,000
	In-Kind – Center for Coastal Studies \$20,000
	Total Project Resources \$40,000

HLR-3	Determine and manage the impact(s) of seismic activities and operations requiring state and/or local permits on coastal habitats and associated fauna.
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Stakeholder Activity

- The Texas Parks & Wildlife Department indicated that self-reporting by seismic companies has been very high. While impacts have not been eliminated, new procedures for determining impacts and where appropriate, restitution have been implemented. Compliance has been verified through unannounced site visits and consultations with biological monitors.

HLR-4	Develop management plans to ensure sustainability for species of concern.
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FY01-03

Primary Project(s)

- 0012 & 0104 – Colonial Waterbird Rookery Island Management within the Coastal Bend Region (completed)
- 0105 – The Effects of Redhead Ducks on Shoal Grass in the Laguna Madre (completed)
- 0213 – Colonial Waterbird / Avian Resources Project (completed)
- 0216 – Snowy Plover Survey (completed)
- 0302 – Colonial Waterbird Rookery Island Management (completed)
- 0321 – Causeway Island Habitat Enhancement (*50 percent complete*)

Secondary Project(s)

- SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird Rookery Islands In Nueces and Corpus Christi Bays
- 0127 – Geographic Information System Development Project
- 0214 – Animal Rescue and Rehabilitation Programs
- 0320 – Support Animal Rescue and Rehabilitation

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

N/A

HLR-4 Primary Project

0012 & 0104 – COLONIAL WATERBIRD ROOKERY ISLAND MANAGEMENT WITHIN THE COASTAL BEND REGION	
Partners:	CBBEP Staff US Fish & Wildlife Service, Texas Audubon Society, USEPA Gulf of Mexico Program
Description:	In response to the long-term decline of certain colonial waterbird species, the CBBEP has initiated a multi-year effort to develop and implement a Strategic Management Plan to stem the population decline and eventually restore bird populations to historic levels. This management effort starts with developing a good database to use as the basis for management actions. Those management actions include habitat enhancement to provide additional nesting area, predator control, controlling human disturbance of nesting areas, and inter-regional planning.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$75,000
	Match – USEPA GOMP \$90,000
	Match – USFWS \$30,000
	Total Program Resources \$195,000
	In-kind – Texas Audubon Society \$19,500
	Total Project Resources \$214,500

HLR-4 Primary Project

0105 – THE EFFECTS OF REDHEAD DUCKS ON SHOAL GRASS IN THE LAGUNA MADRE	
Partners:	Texas A&M University-Kingsville, Caesar Kleberg Wildlife Research Institute and Ducks Unlimited
Description:	More than 80% of the North American population of redhead ducks winters in South Texas, mostly in the Laguna Madre. The broad, shallow Laguna Madre with extensive seagrass beds is ideal habitat for the redhead duck. However, several factors come into play that are important for the long-term survival of the redhead duck, first is the availability of it's preferred food (shoal grass), second is the close availability of a freshwater source, and third is the interaction of a large numbers of redheads concentrated at the few available freshwater ponds (at least during dry years) and the heavy feeding pressure at near by shoal grass beds in the Laguna Madre. We hope that this study provides a better understanding of the importance of shoal grass to the redhead duck and to document the need (if any) to provide supplemental freshwater sources along the Laguna Madre.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$50,000
	Total Program Resources \$50,000
	Match – Ducks Unlimited \$125,000
	Match – TAMUK \$50,000
	Match – Caesar Kleberg Wildlife Research Institute \$50,000
	Total Project Resources \$275,000

HLR-4 Primary Project

0213 – COLONIAL WATERBIRD / AVIAN RESOURCES PROJECT	
Partners:	CBBEP Staff, Texas Audubon Society
Description:	Building on the CBBEP FY01 efforts, this project includes the completion of the <i>Colonial Waterbird Rookery Island Management Plan</i> and continues implementation of specific management actions including human-disturbance avoidance, nesting substrate supplementation, vegetation management to enhance rookery island habitat and predator control. Outreach will continue to be a crucial component in achieving project objectives.
Project Status:	Project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$35,000
	Match USEPA – GOMP Funds \$85,000
	Total Program Resources \$120,000
	In-Kind – Texas Audubon Society \$25,000
	Total Project Resources \$145,000

HLR-4 Primary Project

0216 – SNOWY PLOVER SURVEY	
Partners:	Texas Parks & Wildlife Department, TAMU-CC Center for Coastal Studies, US Fish & Wildlife Service
Description:	The Snowy Plover (<i>Charadrius alexandrinus</i>) is characterized as a 'highly imperiled' by the <i>Lower Mississippi/Western Gulf Coast Regional Shorebird Plan</i> and the Texas Parks and Wildlife Department. This project will fund the planning and implementation of a comprehensive Texas coast-wide survey of breeding Snowy Plovers, using a network of qualified volunteers. The nesting habitats include barrier island washover passes and the higher, drier portions of tidal flats and some beaches. Identified threats to species survival include vehicular traffic, human disturbances and commercial development.
Project Status:	This project has been completed.
Leveraging Role	Primary
	Match - TPWD \$10,000
	Total Program Resources \$12,000
	In-Kind - USFWS \$15,000
	In-Kind - Center for Coastal Studies \$13,600
	Total Project Resources \$38,600

HLR-4 Primary Project

0302 – COLONIAL WATERBIRD ROOKERY ISLAND MANAGEMENT	
Partners:	CBBEP Staff
Description:	Building on the efforts in FY01 & FY02, this project continues implementation of specific management actions in the CBBEP <i>Colonial Waterbird Rookery Island Management Plan</i> including human-disturbance avoidance, nesting substrate supplementation, vegetation management to enhance rookery island habitat and predator control. Additional efforts include continued monitoring of colonial waterbird populations and development of new outreach materials and signage to reduce impacts of human disturbance on waterbird colonies.
Project Status:	Project has been completed.
Leveraging Role	Primary
Resources:	USEPA – \$320 Funds \$125,000
	Total Program Resources \$125,000
	In-Kind – Texas Audubon Society \$30,000
	Total Project Resources \$155,000

HLR-4 Primary Project

0321 – CAUSEWAY ISLAND HABITAT ENHANCEMENT	
Partners:	US Fish & Wildlife Service, Texas General Land Office
Description:	Causeway Island is located in north of IH 37 and along the causeway between the City of Corpus Christi and Portland. The island provides colonial waterbird habitat and is being eroded at 1-3 feet/year. This project addresses the need to protect this important rookery island from erosion and enhance the fish and wildlife habitat value. Preservation of this ecological habitat will also contribute to the growing eco-tourism strategy in the region.
Project Status:	Project is approximately 50% complete and should be completed by 12/31/04. The Project Manager is Leo Trevino.
Leveraging Role	Primary
Resources:	USFWS \$50,000
	Total Program Resources \$50,000
	Match - SEP \$150,000
	Match - TGLO CEPRA \$450,000
	Total Project Resources \$650,000

HLR-5	Improve animal rescue and rehabilitation programs.
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Y01-03	Primary Project(s)	<ul style="list-style-type: none"> 0107 – Animal Rescue and Rehabilitation Project (completed) 0214 – Animal Rescue and Rehabilitation Programs (completed) 0320 – Support Animal Rescue and Rehabilitation (completed)

Secondary Project(s)	N/A
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9-00	Primary Project(s)	N/A
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Secondary Project(s)	N/A
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HLR-5 Primary Project

0107 – ANIMAL RESCUE AND REHABILITATION PROJECT							
Partners:	Texas State Aquarium, University of Texas Marine Science Institute at Port Aransas, Texas Marine Mammal Stranding Network, and others.						
Description:	This project was implemented with the goal of bringing the various animal rescue and rehabilitation organizations together for the purpose of better coordinating activities, sharing of resources, and identification of needs. It is expected that better coordination will result in reduced overlap, avoidance of conflict, and more efficient accomplishment of tasks. CBBEP funds will be used to acquire an assortment of priority supplies, medicines, feed, shelters and other important materials for the continued operation of the various organizations.						
Project Status:	This project has been completed.						
Resources:	<table><tr><td>Local Partners</td><td>\$50,000</td></tr><tr><td>Total Program Resources</td><td>\$50,000</td></tr><tr><td>Total Project Resources</td><td>\$50,000</td></tr></table>	Local Partners	\$50,000	Total Program Resources	\$50,000	Total Project Resources	\$50,000
Local Partners	\$50,000						
Total Program Resources	\$50,000						
Total Project Resources	\$50,000						

HLR-5 Primary Project

0214 – ANIMAL RESCUE AND REHABILITATION PROGRAMS	
Partners:	Various Organizations
Description:	In previous years, CBBEP funds were used to help establish the Coalition of Animal Rescue and Rehabilitation (CARR) as the coordinated communications network of professionals and volunteers involved with animal rescue and rehabilitation. These animals are invaluable tools for education and for encouraging public environmental stewardship. CARR helped to develop a management plan identifying the priority needs of animal rescue and rehabilitation programs. This project will implement the priority needs and conduct a workshop to refine communications and aid animal rescue training.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$50,000
	Total Program Resources \$50,000
	In-Kind – Various \$150,000
	Total Project Resources \$200,000

HLR-5 Primary Project

0320 – SUPPORT ANIMAL RESCUE AND REHABILITATION	
Partners:	Various organizations
Description:	In previous years, CBBEP funds were used to help establish the Coalition of Animal Rescue and Rehabilitation (CARR) as the coordinated communications network of professionals and volunteers involved with animal rescue and rehabilitation. These animals are invaluable tools for education and for encouraging public environmental stewardship. CARR helped to develop a management plan identifying the priority needs of animal rescue and rehabilitation programs. This project will implement the priority needs and conduct a workshop to refine communications and aid animal rescue training.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$10,000
	Total Program Resources \$10,000
	In-Kind – Various \$50,000
	Total Project Resources \$60,000

HLR-6 Facilitate consensus on a regional approach to effective management of bay and bait shrimping.

FY01-03	Primary Project(s)	<ul style="list-style-type: none"> 0106 – Bay Shrimping in the Coastal Bend – A Summary of Current Conditions (completed)
	Secondary Project(s)	N/A

FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	N/A

Program Staff Activities

- The CBBEP facilitated designation of portions of Nueces, Copano and Mesquite Bays as nursery areas by Texas Parks & Wildlife Department. This designation excludes all commercial shrimping from these sensitive bay bottom habitats.

HLR-6 & 7 Primary Project

0106 – BAY SHRIMPING IN THE COASTAL BEND – A SUMMARY OF CURRENT CONDITIONS			
Partners:	TAMU-CC Center for Coastal Studies		
Description:	This project was completed to better understand the bay shrimping industry by collecting relevant biological, sociological and financial information. This information and the contacts established will serve as the basis for developing a consensus on a regional approach to bay shrimping management. The goal of the regional bay shrimping management strategy will be the long-term sustainability of bay shrimp populations and an economically viable (i.e. profitable) bay shrimping industry. Ancillary to this project was the purchase and distribution of 300 by-catch reduction devices for use by bay shrimpers in the region.		
Project Status:	Project is has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$50,000	
	Local Partners	\$10,000	
	Total Program Resources		\$60,000
	In-kind – Center for Coastal Studies	\$34,820	
	Total Project Resources		\$94,820

HLR-7 Reduce bycatch from bay shrimp trawling

FY01-03 **Primary Project(s)** • 0106 – Bay Shrimping in the Coastal Bend – A Summary of Current Conditions

Secondary Project(s) N/A

FY99-00 **Primary Project(s)** N/A

Secondary Project(s) N/A

HLR-6 & 7 Primary Project

0106 – BAY SHRIMPING IN THE COASTAL BEND – A SUMMARY OF CURRENT CONDITIONS

Partners:	TAMU-CC Center for Coastal Studies		
Description:	This project was completed to better understand the bay shrimping industry by collecting relevant biological, sociological and financial information. This information and the contacts established will serve as the basis for developing a consensus on a regional approach to bay shrimping management. The goal of the regional bay shrimping management strategy will be the long-term sustainability of bay shrimp populations and an economically viable (i.e. profitable) bay shrimping industry. Ancillary to this project was the purchase and distribution of 300 by-catch reduction devices for use by bay shrimpers in the region.		
Project Status:	Project is has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$50,000	
	Local Partners	\$10,000	
	Total Program Resources		\$60,000
	In-kind – Center for Coastal Studies	\$34,820	
	Total Project Resources		\$94,820

HLR-8	Reduce impacts on living resources associated with industrial cooling water intake
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Stakeholder Activity

- American Electric Power (AEP) recently mothballed the Nueces Power Plant and no longer uses bay water for cooling at this site. AEP also shut down one of its two units at the Davis Power Station on Laguna Madre effectively reducing use of bay water for cooling by 50 percent.

HLR-9	Minimize the impacts and reduce the occurrence of harmful algal blooms.
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FY01-03

Primary Project(s)

N/A

Secondary Project(s)

- 0002, 0108 & 0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

N/A

Stakeholder Activities

- The Texas Parks and Wildlife Department has implemented a rapid assessment program to respond to harmful algal blooms as they occur.

HLR-10 Develop management plans to minimize introductions and impacts from non-native species.

FY01-03 **Primary Project(s)** • 0204 – Ballast Water / Nonindigenous Invasive Species Risk Assessment (completed)

Secondary Project(s) N/A

FY99-00 **Primary Project(s)** N/A

Secondary Project(s) N/A

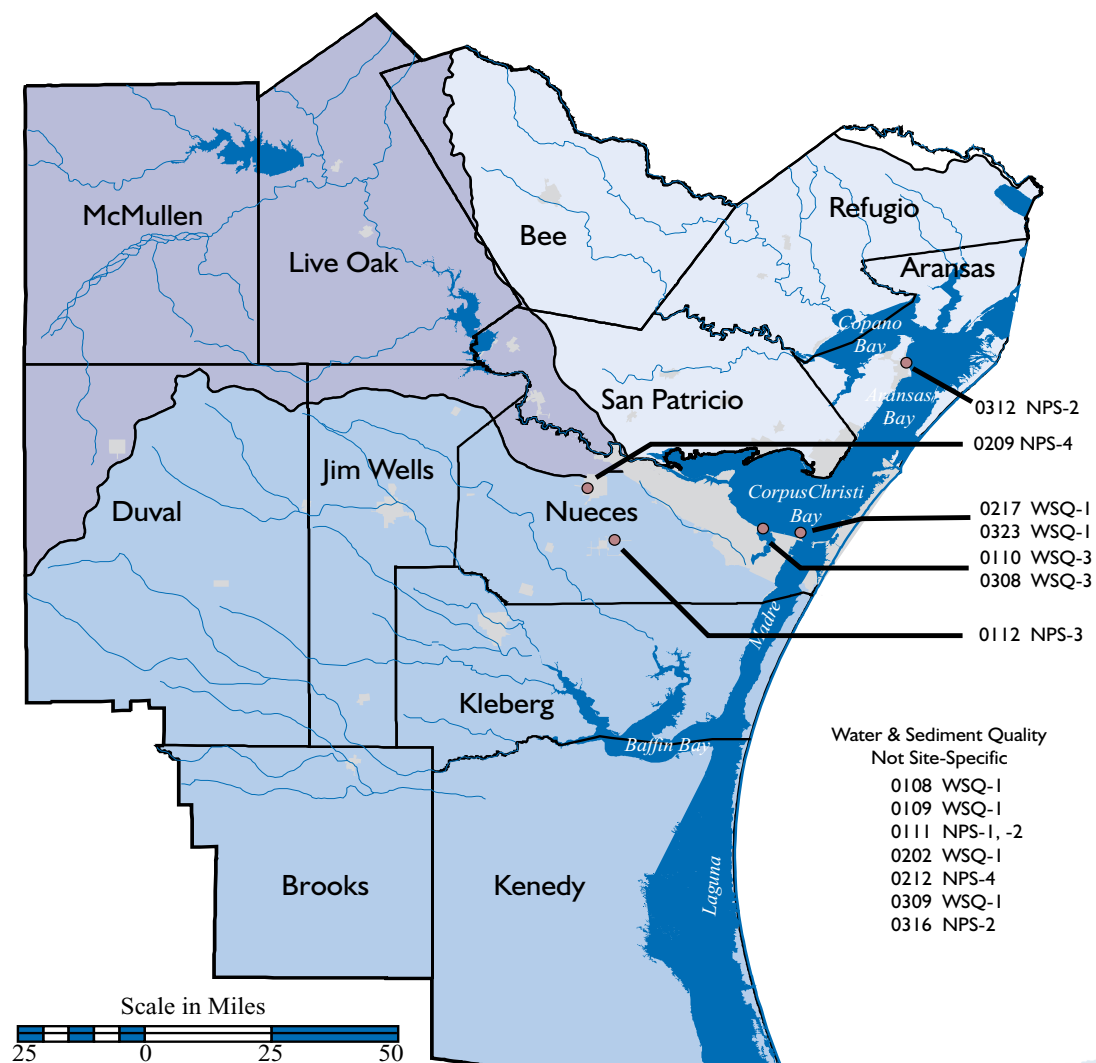
MC-8 & HLR-10 Primary Project

0204 – BALLAST WATER / NONINDIGENOUS INVASIVE SPECIES RISK ASSESSMENT

Partners:	TAMU-CC Center for Coastal Studies, Port of Corpus Christi, USEPA Gulf of Mexico Program		
Description:	The objective of this project is to preliminarily assess the risk of introduction of non-indigenous invasive species from ship ballast water from deep draft ships calling at the Port of Corpus Christi. The focus of this proposal is on aquatic nuisance species (ANS). The Port of Corpus Christi Authority (POCCA) has already initiated an effort to compile data on deep draft ship using the port system. This CBBEP project will fund the second phase and will review the ship data for consistency, then search, review and compile relevant biological, climatological and water quality information characteristic of the various ports of call visited by the deep draft ships prior to using the port system. The data will be formatted to facilitate accessibility and will help identify species for risk assessment.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
	USEPA – GOMP	\$25,000	
	Total Program Resources		\$25,000
	Match – Port Industries of Corpus Christi	\$25,000	
	In-Kind – TAMU-CC Center for Coastal Studies	\$10,000	
	Total Project Resources		\$60,000



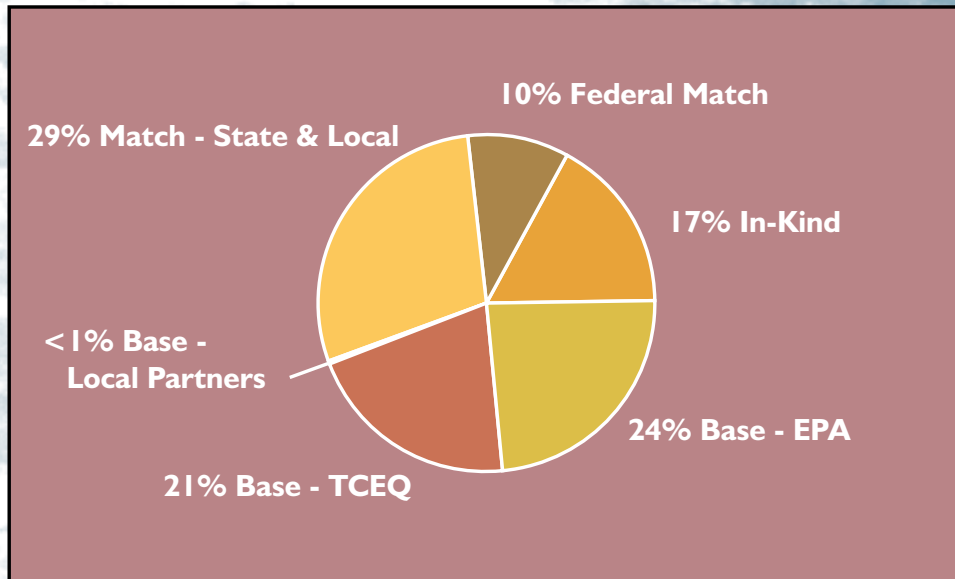
Figure 10. Water & Sediment Quality project map.



Implementation Summary FY01-03

Number of *Bays Plan* Actions: 11
Number of *Bays Plan* Primary Projects: 14
USEPA §320 Funds: \$480,519
Leveraged Funds: \$1,546,473
Leverage Ratio (Primary & Significant Role) 1:3

Figure 11. Water & Sediment Quality funding summary.



Water & Sediment Quality Action Implementation Plan

WSQ-1 **Implement plans to improve water and sediment quality in identified segments.**

FY01-03

**Primary
Project(s)**

- 0002, 0108 & 0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region (completed)
- 0202 – Coastal Bend Regional Water Quality Monitoring Program (completed)
- 0217 – Hypoxia Monitoring in Corpus Christi Bay (completed)
- 0309 – Continue Water and Sediment Quality Monitoring (*80 percent complete*)
- 0323 – Hypoxia Monitoring in Corpus Christi Bay (completed)

**Secondary
Project(s)**

- 0004 & 0110 – Atmospheric Deposition Study
- 9904, 0018, & 0111 Nonpoint Source Pollution Prevention Assistance Project
- 9907 & 0112 Rehabilitation of Failed OSSF in Priority Areas/ Assistance to Local Governments
- 0203 – Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring
- 0209 – Nueces County Wetlands Creation Project
- 0308 – Continuation of Atmospheric Deposition Monitoring Project
- 0310 – Nueces Bay Ichthyoplankton Monitoring
- 0312 – Oily Bilge Water Recovery Project

FY99-00

**Primary
Project(s)**

N/A

**Secondary
Project(s)**

- 0003 Regional Approach to Ensure Recreational Water Quality (Project Managed by TCEQ)
- 0016 – Constructed Wetlands in the Baffin Bay Drainage Basin N/A

WSQ-1 Primary Project

0002, 0108 & 0109 – SURFACE WATER AND BAY SEDIMENT QUALITY MONITORING THROUGHOUT THE COASTAL BEND REGION																													
Partners:	Nueces River Authority, TAMU-CC Center for Coastal Studies, Texas General Land Office, TCEQ, and USEPA																												
Description:	In response to the need for comprehensive and timely water and sediment quality data the CBBEP has launched a series of projects designed to gather statistically valid data throughout the bays of the Coastal bend project area. Using both randomly selected sites and historic monitoring sites the CBBEP and the lead state and federal resource agencies will be able to arrive at statistically defensible conclusions on water and sediment quality throughout the Coastal Bend. This will allow for the identification of any impaired segments (if any) and provide current information on natural conditions to be compared with established water quality standards.																												
Project Status:	This project has been completed.																												
Leveraging Role	Primary																												
Resources:	<table><tr><td>TCEQ Funds</td><td>\$83,833</td><td></td></tr><tr><td>USEPA – §320 Funds</td><td>\$251,500</td><td></td></tr><tr><td>Total Program Resources</td><td></td><td>\$335,333</td></tr><tr><td colspan="3"><hr/></td></tr><tr><td>Match – TPWD</td><td>\$35,000</td><td></td></tr><tr><td>Match – TGLO</td><td>\$140,000</td><td></td></tr><tr><td>In-kind – TCEQ</td><td>\$35,000</td><td></td></tr><tr><td>In-kind – EPA Office of Research & Development</td><td>\$30,000</td><td></td></tr><tr><td>Total Project Resources</td><td></td><td>\$575,333</td></tr></table>		TCEQ Funds	\$83,833		USEPA – §320 Funds	\$251,500		Total Program Resources		\$335,333	<hr/>			Match – TPWD	\$35,000		Match – TGLO	\$140,000		In-kind – TCEQ	\$35,000		In-kind – EPA Office of Research & Development	\$30,000		Total Project Resources		\$575,333
TCEQ Funds	\$83,833																												
USEPA – §320 Funds	\$251,500																												
Total Program Resources		\$335,333																											
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Match – TPWD	\$35,000																												
Match – TGLO	\$140,000																												
In-kind – TCEQ	\$35,000																												
In-kind – EPA Office of Research & Development	\$30,000																												
Total Project Resources		\$575,333																											

0202 – COASTAL BEND REGIONAL WATER QUALITY MONITORING PROGRAM													
Partners:	TAMU-CC Center for Coastal Studies, Texas Parks & Wildlife Department												
Description:	<p>The CBBEP is implementing a regional water quality monitoring program to assess the health of the estuary. This project establishes a routine, baseline-monitoring program that provides an ongoing assessment of water quality and addresses special areas of concern.</p> <p>A. Regional EMAP Based Water Quality Monitoring The EPA Office of Research and Development's Environmental Monitoring and Assessment Program (EMAP) probability based sampling design allows for the determination of current status, extent, changes, and trends in the water quality and ecological community of the CBBEP project area with a scientifically sound monitoring plan. The EMAP sampling program also helps determine the condition of resources, aids in evaluating environmental policies, and provides early identification of water quality concerns.</p> <p>B. Dissolved Oxygen Monitoring The upper Laguna Madre/Baffin Bay and Oso Creek/Oso Bay systems are on the 303(d) list for low dissolved oxygen and bacteria. This area of concern will be monitored for dissolved oxygen over a 24 hour period on a seasonal basis to help determine if the previously observed low levels are a response to natural conditions, or is indicative of anthropogenic impacts.</p> <p>C. Monitor Bacteria Levels at Priority Areas Local studies have found a relationship between rainfall in urban areas and elevated bacteria levels in bay waters. This effort will expand on these findings to monitor water quality in smaller bay and rural communities and will include wet and dry weather sampling.</p>												
Project Status:	This project has been completed.												
Leveraging Role	Primary												
Resources:	<table> <tr> <td>TCEQ Funds</td><td>\$45,000</td></tr> <tr> <td>USEPA – \$320 Funds</td><td>\$110,000</td></tr> <tr> <td>Total Program Resources</td><td>\$155,000</td></tr> <tr> <td>Match – Texas Parks & Wildlife Department</td><td>\$150,000</td></tr> <tr> <td>In-kind – Center for Coastal Studies, TAMU-CC</td><td>\$50,000</td></tr> <tr> <td>Total Project Resources</td><td>\$355,000</td></tr> </table>	TCEQ Funds	\$45,000	USEPA – \$320 Funds	\$110,000	Total Program Resources	\$155,000	Match – Texas Parks & Wildlife Department	\$150,000	In-kind – Center for Coastal Studies, TAMU-CC	\$50,000	Total Project Resources	\$355,000
TCEQ Funds	\$45,000												
USEPA – \$320 Funds	\$110,000												
Total Program Resources	\$155,000												
Match – Texas Parks & Wildlife Department	\$150,000												
In-kind – Center for Coastal Studies, TAMU-CC	\$50,000												
Total Project Resources	\$355,000												

0217 – HYPOXIA MONITORING IN CORPUS CHRISTI BAY		
Partners:	University of Texas Marine Science Institute	
Description:	Hypoxia (low oxygen condition $<2 \text{ mg l}^{-1}$) has been documented in the southeastern region of Corpus Christi Bay every summer since 1988. Data trends indicate that extent and intensity of hypoxia is increasing over time and is due to increases in temperatures since nutrients have not increased. Hypoxia is a grave concern because aerobic organisms require oxygen to live. Hypoxia in Corpus Christi Bay occurs only in bottom waters, within 1 – 2 meters above bottom and primarily in July. This project will provide spatial and temporal monitoring of hypoxic conditions in Corpus Christi Bay thru the use of continuous oxygen recorders.	
Project Status:	This project has been completed.	
Leveraging Role	Primary	
Resources:	Local Partners	\$3,000
	Total Program Resources	\$3,000
	Match – UT Marine Science Institute	\$25,000
	Total Project Resources	\$28,000

0309 – CONTINUE WATER AND SEDIMENT QUALITY MONITORING																				
Partners:	TAMU-CC Center for Coastal Studies																			
Description:	<p>The CBBEP is implementing a regional water quality monitoring program to assess the health of the estuary. This project establishes a routine, baseline-monitoring program that provides an ongoing assessment of water quality and addresses special areas of concern.</p> <p>A. Regional EMAP Based Water Quality Monitoring The EPA Office of Research and Development’s Environmental Monitoring and Assessment Program (EMAP) probability based sampling design allows for the determination of current status, extent, changes, and trends in the water quality and ecological community of the CBBEP project area with a scientifically sound monitoring plan. The EMAP sampling program also helps determine the condition of resources, aids in evaluating environmental policies, and provides early identification of water quality concerns.</p> <p>B. Dissolved Oxygen Monitoring The upper Laguna Madre/Baffin Bay and Oso Creek/Oso Bay systems are on the 303(d) list for low dissolved oxygen and bacteria. This area of concern will be monitored for dissolved oxygen over a 24 hour period on a seasonal basis to help determine if the previously observed low levels are a response to natural conditions, or is indicative of anthropogenic impacts.</p> <p>C. Monitor Bacteria Levels at Priority Areas Local studies have found a relationship between rainfall in urban areas and elevated bacteria levels in bay waters. This effort will expand on these findings to monitor water quality in smaller bay and rural communities and will include wet and dry weather sampling.</p>																			
Project Status:	Project is approximately 80% complete and should be completed by 07/31/04. The Project Manager is Jim Bowman.																			
Leveraging Role	Primary																			
Resources:	<table><tr><td>TCEQ Funds</td><td>\$38,000</td><td></td></tr><tr><td>USEPA – GOMP</td><td>\$137,500</td><td></td></tr><tr><td>Total Program Resources</td><td></td><td>\$175,500</td></tr><tr><td>Match – Texas Parks & Wildlife Department</td><td>\$150,000</td><td></td></tr><tr><td>In-kind – Center for Coastal Studies, TAMU-CC</td><td>\$50,000</td><td></td></tr><tr><td>Total Project Resources</td><td></td><td>\$375,500</td></tr></table>		TCEQ Funds	\$38,000		USEPA – GOMP	\$137,500		Total Program Resources		\$175,500	Match – Texas Parks & Wildlife Department	\$150,000		In-kind – Center for Coastal Studies, TAMU-CC	\$50,000		Total Project Resources		\$375,500
TCEQ Funds	\$38,000																			
USEPA – GOMP	\$137,500																			
Total Program Resources		\$175,500																		
Match – Texas Parks & Wildlife Department	\$150,000																			
In-kind – Center for Coastal Studies, TAMU-CC	\$50,000																			
Total Project Resources		\$375,500																		

0323 – HYPOXIA MONITORING IN CORPUS CHRISTI BAY		
Partners:	University of Texas Marine Science Institute	
Description:	Hypoxia (low oxygen condition $<2 \text{ mg l}^{-1}$) has been documented in the southeastern region of Corpus Christi Bay every summer since 1988. Data trends indicate that extent and intensity of hypoxia is increasing over time and is due to increases in temperatures since nutrients have not increased. Hypoxia is a grave concern because aerobic organisms require oxygen to live. Hypoxia in Corpus Christi Bay occurs only in bottom waters, within 1 – 2 meters above bottom and primarily in July. This project will provide spatial and temporal monitoring of hypoxic conditions in Corpus Christi Bay thru the use of continuous oxygen recorders.	
Project Status:	This project has been completed	
Leveraging Role	Primary	
Resources:	Local Partners	\$3,000
	Total Program Resources	\$3,000
	Match – UT Marine Science Institute	\$25,000
	Total Project Resources	\$28,000

WSQ-2 Support the implementation of permitting rules for shrimp farms and other aquaculture facilities

Stakeholder Activity

- Environmental Defense worked with a citizen's coalition to improve state aquaculture regulations including wastewater discharge permits during the previous report period. As a result of these changes, shrimp aquaculture has decreased the amount of discharge by 80 percent in most cases and more than doubled production per acre.

WSQ-3 Implement plans to improve water and sediment quality in identified segments.

FY01-03

Primary Project(s)	<ul style="list-style-type: none"> 0004 & 0110 – Atmospheric Deposition Study (completed) 0308 – Continuation of Atmospheric Deposition Monitoring Project (5 percent complete)
Secondary Project(s)	<ul style="list-style-type: none"> 0002, 0108 & 0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region 0202 – Coastal Bend Regional Water Quality Monitoring Program 0203 – Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring 0217 – Hypoxia Monitoring in Corpus Christi Bay 0309 – Continue Water and Sediment Quality Monitoring 0310 – Nueces Bay Ichthyoplankton Monitoring 0323 – Hypoxia Monitoring in Corpus Christi Bay (combine with 0217?)

FY99-00

Primary Project(s)	N/A
Secondary Project(s)	<ul style="list-style-type: none"> 0003 - Regional Approach to Ensure Recreational Water Quality (Project Managed by TCEQ)

WSQ-3 Primary Project	0004 & 0110 – ATMOSPHERIC DEPOSITION STUDY																		
	Partners:	Texas A&M University - College Station, GERG																	
	Description:	The purpose of this project is to fill the data gap respective to the contribution of atmospheric deposition to the total loadings of pollutants to the bay system. This on-going multi-year effort is collecting information on both dry and wet weather conditions at a station located on the campus of Texas A&M University at Corpus Christi. This information will be used the next time the total loadings model for the bay system is updated.																	
	Project Status:	This project has been completed.																	
	Leveraging Role	Primary																	
	Resources:	<table> <tr> <td>TCEQ Funds</td><td>\$16,250</td><td></td></tr> <tr> <td>USEPA – \$320 Funds</td><td>\$48,750</td><td></td></tr> <tr> <td>Special USEPA Funds</td><td>\$13,659</td><td></td></tr> <tr> <td>Total Program Resources</td><td></td><td>\$78,659</td></tr> <tr> <td>In-kind - TAMU</td><td>\$10,000</td><td></td></tr> <tr> <td>Total Project Resources</td><td></td><td>\$88,695</td></tr> </table>	TCEQ Funds	\$16,250		USEPA – \$320 Funds	\$48,750		Special USEPA Funds	\$13,659		Total Program Resources		\$78,659	In-kind - TAMU	\$10,000		Total Project Resources	
TCEQ Funds	\$16,250																		
USEPA – \$320 Funds	\$48,750																		
Special USEPA Funds	\$13,659																		
Total Program Resources		\$78,659																	
In-kind - TAMU	\$10,000																		
Total Project Resources		\$88,695																	

WSQ-3 Primary Project	0308 – CONTINUATION OF ATMOSPHERIC DEPOSITION MONITORING PROJECT												
	Partners:	Texas A&M University-Geochemical and Environmental Research Group											
	Description:	This is a continuation of earlier CBBEP efforts to determine the contribution atmospheric deposition on total pollutant loadings to the bay system. This on-going multi-year effort is collecting information on both dry and wet weather conditions at a station located on the campus of Texas A&M University at Corpus Christi. The monitoring study has been maintained since 1997 and in 2000, the site was established as a part of the National Atmospheric Deposition Program-National Trends Network (NADP-NTN). The data will be used to evaluate trends in atmospheric pollutants, compare Corpus Christi with other NADP-NTN sites around the country and will be used in the bay system total loadings model.											
	Project Status:	Project is approximately 5% complete and should be completed by 08/31/05. The Project Manager is Jim Bowman.											
	Leveraging Role	Primary											
	Resources:	<table> <tr> <td>TCEQ Funds</td><td>\$50,000</td><td></td></tr> <tr> <td>Total Program Resources</td><td></td><td>\$50,000</td></tr> <tr> <td>In-Kind – TAMU-GERG</td><td>\$50,000</td><td></td></tr> <tr> <td>Total Project Resources</td><td></td><td>\$100,000</td></tr> </table>	TCEQ Funds	\$50,000		Total Program Resources		\$50,000	In-Kind – TAMU-GERG	\$50,000		Total Project Resources	
TCEQ Funds	\$50,000												
Total Program Resources		\$50,000											
In-Kind – TAMU-GERG	\$50,000												
Total Project Resources		\$100,000											

WSQ-4 Undertake an analysis of the biological and ecological effects of selected constituents.

FY01-03	Primary Project(s)	N/A
	Secondary Project(s)	<ul style="list-style-type: none"> • 0002, 0108 & 0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region • 0202 – Coastal Bend Regional Water Quality Monitoring Program • 0203 – Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring • 0217 – Hypoxia Monitoring in Corpus Christi Bay • 0309 – Continue Water and Sediment Quality Monitoring • 0310 – Nueces Bay Ichthyoplankton Monitoring • 0323 – Hypoxia Monitoring in Corpus Christi Bay

FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	N/A

WSQ-5	Ensure that water quality standards and sediment quality criteria are adequate and appropriate.
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FY01-03

Primary Project(s)

N/A

Secondary Project(s)

- 0002, 0108 & 0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region
- 0202 – Coastal Bend Regional Water Quality Monitoring Program
- 0217 – Hypoxia Monitoring in Corpus Christi Bay
- 0309 – Continue Water and Sediment Quality Monitoring
- 0323 – Hypoxia Monitoring in Corpus Christi Bay

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

- 0003 Regional Approach to Ensure Recreational Water Quality (Project Managed by TCEQ)

Program Activities

- CBBEP staff supported efforts by the Texas Commission on Environmental Quality and Texas Department of Health to update water segment use designations. As a result, some segments that were historically designated as 'oyster waters' were changed to more accurately reflect their current uses.

Nonpoint Source Management Action Implementation Plan

NPS-1 **Develop a regional handbook of urban nonpoint source pollution Best management practices for voluntary use by local governments seeking to implement nonpoint source pollution prevention programs.**

FY01-03

- | | |
|-----------------------------|--|
| Primary Project(s) | <ul style="list-style-type: none"> 9904, 0018, & 0111 Nonpoint Source Pollution Prevention Assistance Project (complete) |
| Secondary Project(s) | <ul style="list-style-type: none"> 0102 – Bay Debris Removal Demonstration Project – End of Pipe Collection System 0316 – Nonpoint Source Outreach & Education Project |

FY99-00

- | | |
|-----------------------------|-----|
| Primary Project(s) | N/A |
| Secondary Project(s) | N/A |

NPS-1 & NPS-2 Primary Project

9904, 0018, & 0111 NONPOINT SOURCE POLLUTION PREVENTION ASSISTANCE PROJECT			
Partners:	TAMU CC University Outreach		
Description:	The nonpoint source Pollution Prevention Assistance Project will assist Coastal Bend communities with stormwater management. A regional, technical advisory committee will convene to identify, compile and develop (if necessary) resources or a handbook of recommended urban nonpoint source BMPs appropriate for the Coastal Bend. Assistance in the form of outreach and demonstration management strategies for the communities will be provided to assist in the development and implementation of proven stormwater management practices. In addition, a roster of technical resource personnel will be developed and provided to participating small-cities for them to draw upon as they design and implement their stormwater management programs.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$83,231	
	USEPA – \$320 Funds	\$40,269	
	Total Program Resources		\$123,500
	Match – Texas General Land Office	\$25,000	
	Total Project Resources		\$148,500

NPS-2 Provide compliance assistance to small businesses and industries in the region that are subject to the NPDES permit program or have nonpoint source control needs.

FY01-03

Primary Project(s)	<ul style="list-style-type: none"> 9904, 0018, & 0111 Nonpoint Source Pollution Prevention Assistance / Assistance to Local Governments Project (completed) 0312 – Oily Bilge Water Recovery Project (completed) 0316 – Nonpoint Source Outreach & Education Project (completed)
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Secondary Project(s)	N/A
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FY99-00

Primary Project(s)	N/A
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Secondary Project(s)	N/A
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NPS-1 & NPS-2 Primary Project	9904, 0018, & 0111 NONPOINT SOURCE POLLUTION PREVENTION ASSISTANCE PROJECT		
	Partners:	TAMU CC University Outreach	
	Description:	The nonpoint source Pollution Prevention Assistance Project will assist Coastal Bend communities with stormwater management. A regional, technical advisory committee will convene to identify, compile and develop (if necessary) resources or a handbook of recommended urban nonpoint source BMPs appropriate for the Coastal Bend. Assistance in the form of outreach and demonstration management strategies for the communities will be provided to assist in the development and implementation of proven stormwater management practices. In addition, a roster of technical resource personnel will be developed and provided to participating small-cities for them to draw upon as they design and implement their stormwater management programs.	
	Project Status:	This project has been completed.	
	Leveraging Role	Primary	
	Resources:	<div> TCEQ Funds \$83,231 USEPA – \$320 Funds \$40,269 Total Program Resources </div>	\$123,500
		<div> Match – Texas General Land Office \$25,000 Total Project Resources </div>	\$148,500

NPS-2 Primary Project

0312 – OILY BILGE WATER RECOVERY PROJECT		
Partners:	University Outreach, Texas A&M University–Corpus Christi, Texas General Land Office	
Description:	Oil spills in marine waters have often been traced to commercial and recreational marine vessel operations. Often the spills result from “pumping out” bilge water that has been contaminated with oil. The project will reduce oily bilge discharges in the harbors and channels through the design, manufacture and installation of two Mobile Bilge Pumpout Stations located at harbors in Rockport-Fulton and Port Aransas. Educate commercial vessel operators on availability and operating procedures. Each unit will consist of a skid-mounted tank and pump designed to pump-out and hold up to 3000 gallons of contaminated bilge water and may also include a parallel feature to pump-out and hold crankcase oil.	
Project Status:	This project has been completed.	
Leveraging Role	Primary	
	TCEQ Funds	\$42,000
	Total Program Resources	\$42,000
	Match – Texas General Land Office	\$84,000
	In-Kind – TAMU-CC	\$16,000
	Total Project Resources	\$142,000

NPS-2 Primary Project

0316 – NONPOINT SOURCE OUTREACH & EDUCATION PROJECT			
Partners:	TAMU-CC Outreach		
Description:	This project addresses the continued need for greater public awareness of nonpoint source pollution and its impact to our bays and estuaries. It will develop an outreach strategy for communities that may be affected by new stormwater regulations. These outreach efforts are coordinated with TCEQ to avoid duplication of efforts. The program has been instrumental in identifying issues concerning nonpoint source pollution and solutions to minimize the pollution. The program continues to be a success by keeping a high level of interest on stormwater pollution prevention the communities.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
	TCEQ Funds	\$50,000	
	Total Program Resources		\$50,000
	In-Kind – University Outreach, TAMU-CC	\$50,000	
	Total Project Resources		\$100,000

NPS-3	Assist local governments to implement On-Site Sewage Facility (OSSF) programs.
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FY01-03	Primary Project(s)	<ul style="list-style-type: none"> 9907 & 0112 Rehabilitation of Failed OSSF in Priority Areas/ Assistance to Local Governments
	Secondary Project(s)	<ul style="list-style-type: none"> 0316 – Nonpoint Source Outreach & Education Project

FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	N/A

NPS-3 Primary Project

9907 & 0112 REHABILITATION OF FAILED OSSF IN PRIORITY AREAS/ ASSISTANCE TO LOCAL GOVERNMENTS

Partners:	Nueces County, USEPA Gulf of Mexico Program		
Description:	The leading cause of local waters failing to meet federal and state water quality standards is bacterial contamination. The lack of adequate sewage treatment in low income rural subdivisions (sometimes called colonias) has created both a public health concern and a water quality problem. Local and state governments have implemented rules and regulations to attempt to avoid these situations in the future. However, having reviewed the possible strategies for responding to the existing situations, the CBBEP has elected to pursue a proactive path of direct involvement in upgrading On Site Septic Facilities (OSSF) (also known as septic tank systems) in certain priority colonias, especially those located close to major drainages to the bay.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$10,000	
	USEPA – §320 Funds	\$30,000	
	USEPA GOMP	\$46,000	
	Total Program Resources		\$86,000
	Total Project Resources		\$86,000

NPS-4 Coordinate and implement agricultural water quality management programs necessary to meet water quality standards.

FY01-03

Primary Project(s)

- 0209 – Nueces County Wetlands Creation Project (10 percent complete)
- 0212 – Private Lands Riparian Habitat Restoration (*60 percent complete*)

Secondary Project(s)

N/A

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

N/A

Stakeholder Activities

- The Texas State Soil and Water Conservation Board has been actively implementing BMPs in the agricultural community including installation of vegetative filter strips, retentions ponds and others.

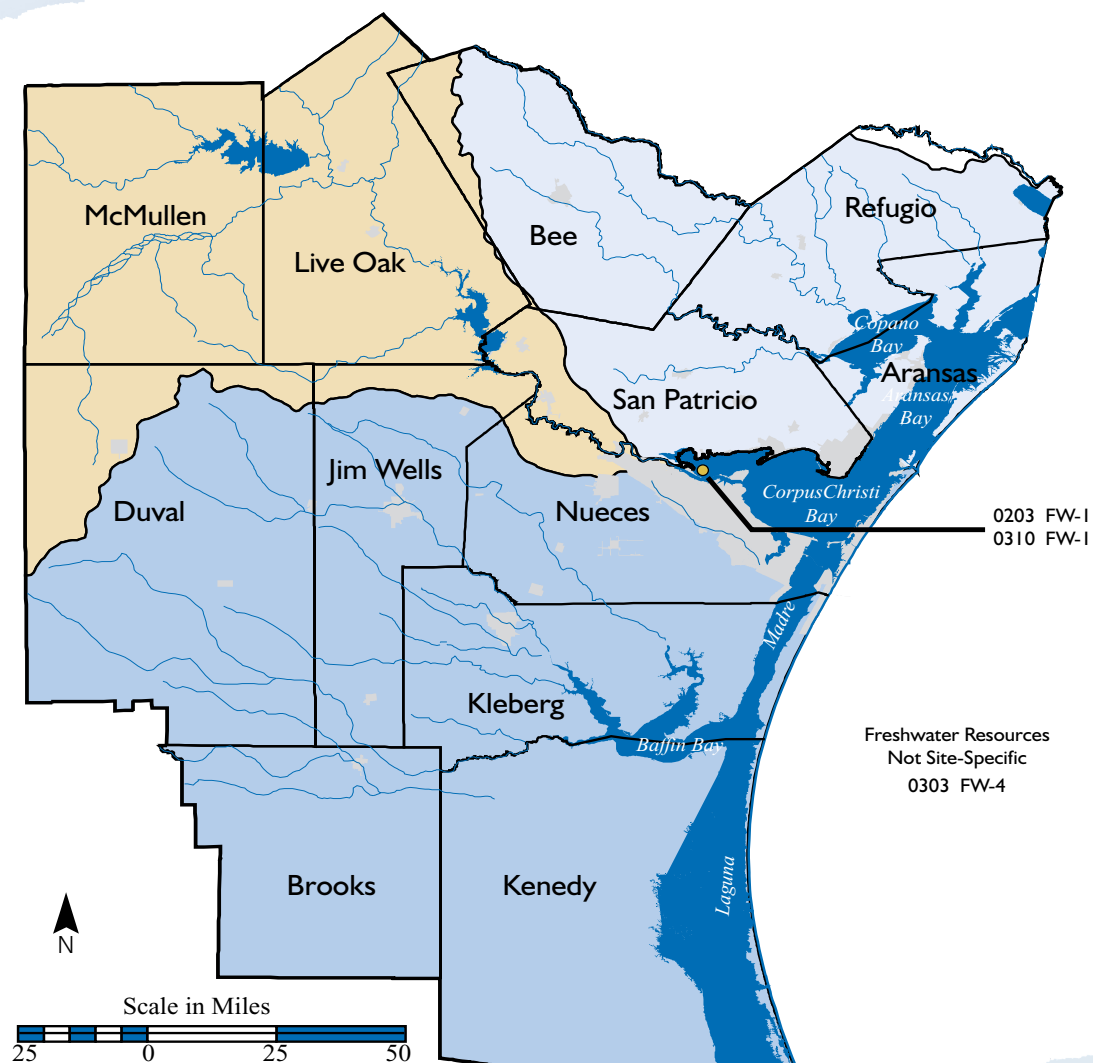
BTR-2 & NPS-4 Primary Project

0209 – NUECES COUNTY WETLANDS CREATION PROJECT			
Partners:	Nueces County, Texas Parks & Wildlife Department, Nueces County Drainage District		
Description:	Nueces County proposes an innovative blend of public service, environmental protection and enhancement, and improved recreational resources through the creation of a series of stormwater retention ponds at the Robstown County Park. This constructed wetland will improve water quality by retaining and filtering stormwater runoff from adjacent agricultural fields. The ponds will also provide an excellent opportunity for public viewing of wildlife, other recreational benefits such as fishing, educational benefits via signage and learning opportunities, and ecological enhancement through the planting of native vegetation.		
Project Status:	Project is approximately 10% complete and should be completed by 8/31/04. The Project Manager is Amy Hanna.		
Leveraging Role	Primary		
	TCEQ Funds	\$50,000	
	Total Program Resources		\$50,000
	Match – TPWD	\$50,000	
	In-Kind – TPWD	\$50,000	
	In-Kind - Nueces County Drainage District	\$50,000	
	Total Project Resources		\$200,000

HLR-2 & NPS-4 Primary Project

0212 – PRIVATE LANDS RIPARIAN HABITAT RESTORATION			
Partners:	De-Go-La Resource Conservation and Development Project, Inc., US Department of Agriculture		
Description:	Riparian habitats provide essential functions including control of nonpoint source pollution and flood and erosion control. Conversion to other uses, including agriculture, contributes to the destruction, degradation and fragmentation of these habitats. This project will assist the U.S. Department of Agriculture’s Continuous Conservation Reserve Program (CCRP) in restoration of more than 100 acres of riparian habitat where agricultural activities have resulted in the removal or significant alteration of vegetation and habitat. Funds will provide a monetary incentive to landowners to convert cropland back to native vegetative cover and implement and assess habitat restoration plans for these areas.		
Project Status:	Project is approximately 60% complete and should be completed by 12/31/04. The Project Manager Amy Hanna.		
Leveraging Role	Primary		
Resources:	US Fish & Wildlife Service	\$46,000	
	Total Program Resources		\$46,000
	Match – De-Go-La RCDP, USDA	\$150,000	
	Total Project Resources		\$196,000

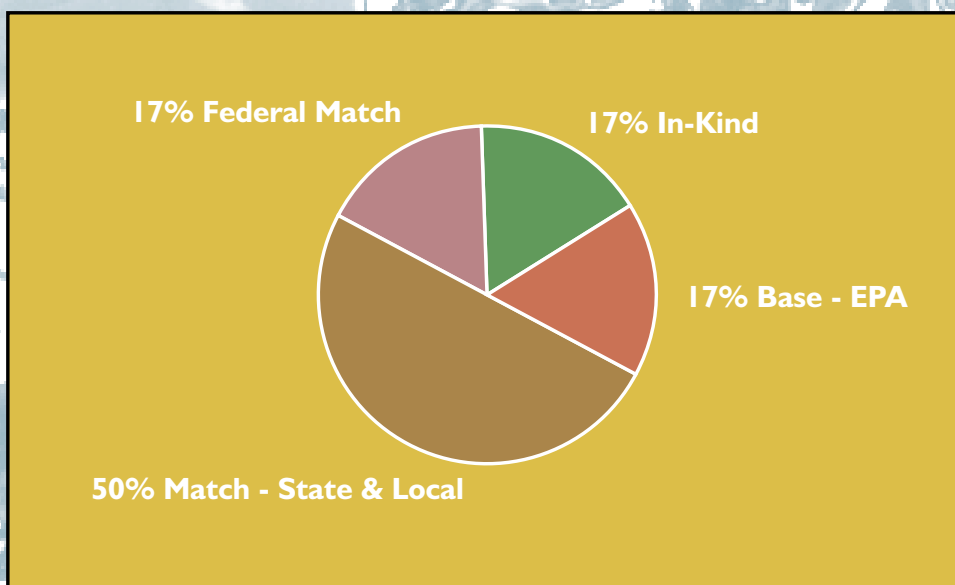
Figure 12. Freshwater Resources project map.



Implementation Summary FY01-03

Number of *Bays Plan* Actions: 4
Number of *Bays Plan* Primary Projects: 3
USEPA \$320 Funds: \$20,000
Leveraged Funds: \$100,000
Leverage Ratio (Primary & Significant Role) 1:5

Figure 13. Freshwater Resources funding summary.



Freshwater Resources Action Implementation Plan

FW-1 **Improve scientific understanding of the freshwater needs of the estuaries.**

FY01-03

**Primary
Project(s)**

- 0203 – Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring (completed)
- 0310 – Nueces Bay Ichthyoplankton Monitoring (*80 percent complete*)

**Secondary
Project(s)**

- 0002, 0108 & 0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region.

FY99-00

**Primary
Project(s)**

N/A

**Secondary
Project(s)**

N/A

FW-1 Primary Project

0203 – ASSIST NUECES DELTA FRESHWATER INFLOW ICHTHYOPLANKTON MONITORING			
Partners:	TAMU-CC Center for Coastal Studies, Texas Parks & Wildlife Department		
Description:	Alternative efforts to maximize freshwater inflow to the Nueces Delta, such as the Rincon Bayou channel and pipeline are being pursued. This project will attempt to determine the type and extent of effects these altered flows may have on fish populations and community structure. The overall ichthyoplankton monitoring project is being implemented by Texas Parks and Wildlife. CBBEP funding will provide support for student workers to assist with field sampling and laboratory analysis. Texas Parks and Wildlife will prove a copy of the results of their monitoring project to the CBBEP.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	USEPA – \$320 Funds	\$20,000	
	Total Program Resources		\$20,000
	Match – TPWD	\$30,000	
	In-Kind – Center for Coastal Studies	\$10,000	
	Total Project Resources		\$60,000

FW-1 Primary Project

0310 – NUECES BAY ICHTHYOPLANKTON MONITORING			
Partners:	TAMU-CC Center for Coastal Studies		
Description:	Alternative efforts to maximize freshwater inflow to the Nueces Delta, such as the Rincon Bayou channel and pipeline are being pursued. This project will attempt to determine the type and extent of effects these altered flows may have on fish populations and community structure. The overall ichthyoplankton monitoring project is being implemented by Texas Parks and Wildlife. CBBEP funding will provide support for student workers to assist with field sampling and laboratory analysis. Texas Parks and Wildlife will prove a copy of the results of their monitoring project to the CBBEP.		
Project Status:	Project is approximately 80% complete and should be completed by 12/31/04. The Project Manager is Jim Bowman.		
Leveraging Role	Primary		
Resources:	USEPA – GOMP	\$20,000	\$
	Total Program Resources		\$20,000
	Match – TPWD	\$30,000	
	In-Kind – Center for Coastal Studies	\$10,000	
	Total Project Resources		\$60,000

FW-2 Assist the Coastal Bend Regional Water Planning Group and regional water managers to incorporate the needs of estuaries in comprehensive planning.

Program Staff Activities

- Staff participates with the City of Corpus Christi and Nueces River Authority on the Coastal Bend Regional Water Planning Group to assess and develop water management strategies.
- Program staff also participate with the Nueces Estuary Advisory Council to provide the Texas Commission on Environmental Quality recommendations regarding freshwater inflows to Nueces Bay.

FW-3 Support efforts that directly contribute to increased freshwater flow events into the bays and estuaries of the Coastal Bend.

FY01-03

Primary Project(s)

N/A

Secondary Project(s)

- SEP 002 – Habitat Acquisition and protection in San Patricio and Nueces Counties
- 0305 – Nueces Delta Habitat Acquisition Project

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

N/A

Program Activities

- The Program is supporting efforts of the City of Corpus Christi to divert low-level river flows directly into the Nueces River delta complex.
- The Program also supports the City's effort to return treated effluent into the delta complex..

FW-4 Effectively communicate the purpose and results of ongoing freshwater plans and programs.

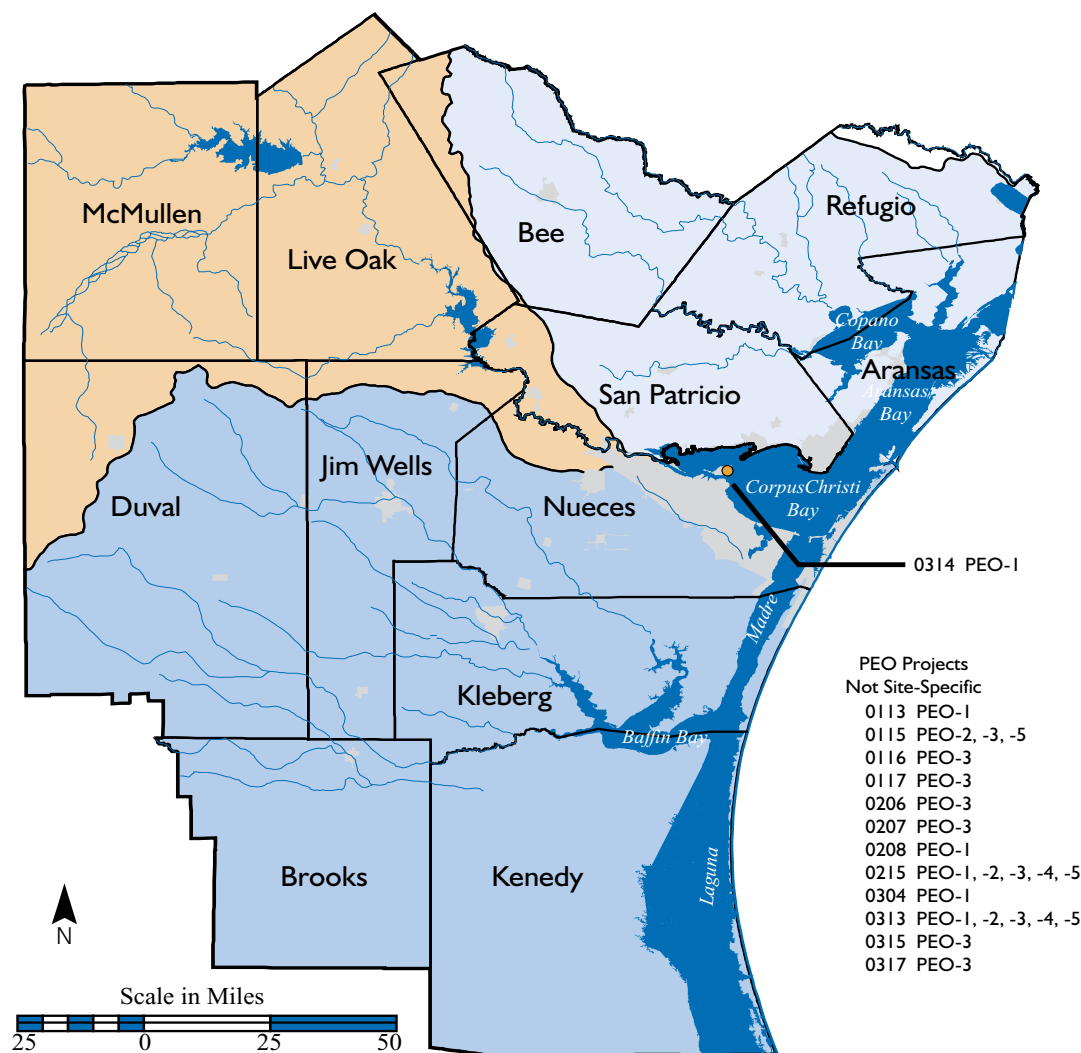
FY01-03	Primary Project(s)	<ul style="list-style-type: none"> 0303 – Public Education & Outreach Media Campaign (<i>27 percent complete</i>)
	Secondary Project(s)	<ul style="list-style-type: none"> 0113 – Develop and Implement a Regional Public Outreach Strategy

FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	N/A

BTR-3 & FW-4 Primary Project

0303 – PUBLIC EDUCATION & OUTREACH MEDIA CAMPAIGN			
Partners:	CBBEP Staff, Texas Parks & Wildlife Department		
Description:	Public outreach continues to be a key element of the CBBEP <i>Coastal Bend Bays Plan</i> implementation. This project funds the creation and implementation of an education and media campaign to raise public awareness about freshwater inflows, nonpoint source pollution and to promote environmentally friendly recreational activities. The CBBEP will use local and regional media outlets including television, radio, print and websites to reach the public.		
Project Status:	Project is approximately 27% complete and should be completed by 07/31/04. The Project Manager Monika De La Garza.		
Leveraging Role	Primary		
Resources	USEPA – \$320 Funds	\$50,000	
	Total Program Resources		\$50,000
	In-Kind – various media outlets	\$150,000	
	Total Project Resources		\$200,000

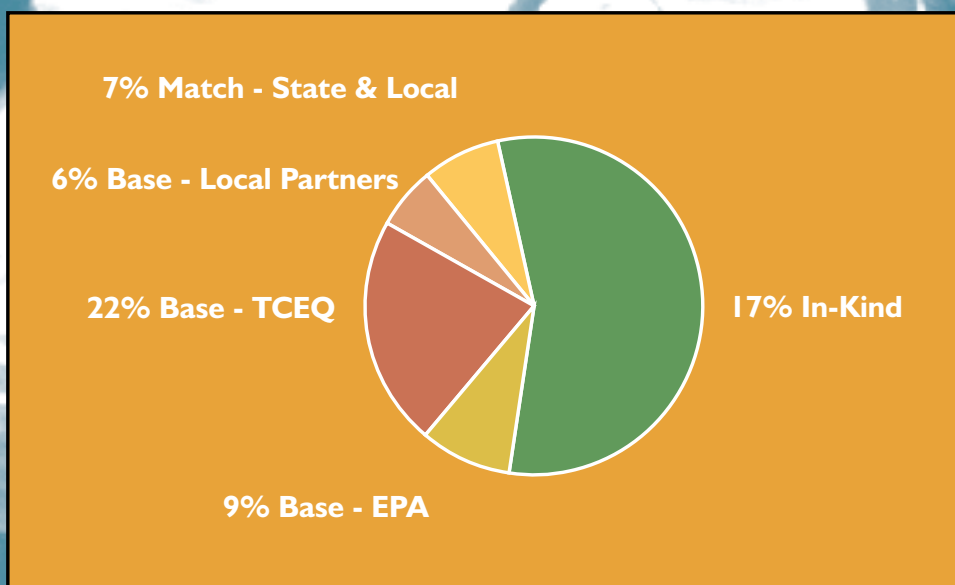
Figure 14. Public Education & Outreach project map.



Implementation Summary FY01-03

Number of Bays Plan Actions: 5
Number of Bays Plan Primary Projects: 13
USEPA §320 Funds: \$115,000
Leveraged Funds: \$1,310,729
Leverage Ratio (Primary & Significant Role) 1:10

Figure 15. Public Education & Outreach funding summary.



Public Education & Outreach Action Implementation Plan

PEO-1 Develop and implement a regional public education and outreach strategy.

FY01-03

Primary Project(s)

- 0113 – Develop and Implement a Regional Public Outreach Strategy (completed)
- 0208 – Walk-through-the-Wetlands / Adopt-A-Wetland (completed)
- 0215 – Various Public Outreach and Education Projects (completed)
- 0304 – Walk-Through-the-Wetlands / Adopt-A-Wetland (completed)
- 0313 – Public Outreach Events and Activities (*85 percent complete*)
- 0314 – Estuary Exhibit Redesign at the Texas State Aquarium (*25 percent complete*)

Secondary Project(s)

- 0101 – Ecotourism Management and Stewardship Promotion Project
- 0120 – Paradise Pond Habitat Protection and Public Access Enhancement Project
- 0121 – Mollie Beattie Habitat Protection and Public Access Enhancement Project
- 0122 – Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project
- 9904, 0018, & 0111 Nonpoint Source Pollution Prevention Assistance Project
- 0307 – Continue to Support Development of Local Land Trust

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

- 0014 – Ecotourism Strategic Plan and Support Materials
- 0016 – Constructed Wetlands in the Baffin Bay Drainage Basin
- 9906 & 0009 – Seagrass Protection and Restoration Project

PEO-1 Primary Project

0113 – DEVELOP AND IMPLEMENT A REGIONAL PUBLIC OUTREACH STRATEGY	
Partners:	CBBEP staff project with external partners as appropriate
Description:	CBBEP advisory committees strongly support the need to implement outreach efforts designed to reach the general public. Areas of special interest include nonpoint source pollution, environmental stewardship, seagrass protection, and freshwater inflows. CBBEP staff has sought partnerships with local governments and non-profit organizations to help get out the message. Partnership projects at this point include \$15,000 allocated for a non-point source pollution education campaign with the City of Corpus Christi and \$7,500 to sponsor a private lands stewardship photography campaign with the Coastal Bend Photo contest. Additional projects are under development.
Project Status:	This project has been completed.
Resources:	TCEQ Funds \$12,500
	USEPA – \$320 Funds \$37,500
	Total Program Resources \$50,000
	Total Project Resources \$50,000

PEO-1 Primary Project

0208 – WALK-THROUGH-THE-WETLANDS / ADOPT-A-WETLAND	
Partners:	Center for Coastal Studies, Texas A&M University Corpus Christi
Description:	One of the most important goals of the CBBEP Bays Plan is to educate citizens about the ecology of the bay system and its many environmental and economic values. <i>Walk Through The Wetlands</i> is an interactive wetland display designed to interest and educate people about coastal wetlands. The display was first installed at Bayfest 2000, where over 1000 visitors enjoyed the exhibit and learned about the benefits wetlands provide to people and animals. Trained volunteer interpreters are available at learning stations to share their knowledge of the various aspects of wetlands. Accessibility allows people of all ages and abilities to explore and learn about the plants and animals that inhabit wetlands.
Project Status:	Project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$10,000
	USEPA – Region IV \$15,000
	Total Program Resources \$25,000
	In-Kind – Center for Coastal Studies, TAMU-CC \$25,000
	Total Project Resources \$50,000

0215 – VARIOUS PUBLIC OUTREACH AND EDUCATION PROJECTS	
Partners:	CBBEP & others
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Aransas Pass Shrimporee, Rockport Seafair, Fulton Oysterfest and others. • CBBEP Newsletter “Around the Bend” - The newsletter is an important outreach tool and keeps Estuary Council members and the public informed about local environmental issues and Program activities. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. • Public Outreach Through Media – Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$19,000
	TCEQ Funds \$32,500
	Total Program Resources \$51,500
	In-Kind – Various \$250,000
	Total Project Resources \$301,500

0304 – WALK-THROUGH-THE-WETLANDS / ADOPT-A-WETLAND

Partners:	TAMU-CC Center for Coastal Studies, Adopt-A-Wetland Program, Corpus Christi Botanical Gardens		
Description:	One of the most important goals of the CBBEP Bays Plan is to educate citizens about the ecology of the bay system and its many environmental and economic values. Walk Through The Wetlands is an interactive wetland display designed to interest and educate people about coastal wetlands. The display was first installed at Bayfest 2000, where over 1000 visitors enjoyed the exhibit and learned about the benefits wetlands provide to people and animals. Trained volunteer interpreters are available at learning stations to share their knowledge of the various aspects of wetlands. Accessibility allows people of all ages and abilities to explore and learn about the plants and animals that inhabit wetlands.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	USEPA – §320 Funds	\$25,000	
	Total Program Resources		\$25,000
	In-Kind – Center for Coastal Studies,	\$25,000	
	In-Kind - Corpus Christi Botanical Gardens	\$5,000	
	Total Project Resources		\$55,000

0313 – PUBLIC OUTREACH EVENTS AND ACTIVITIES											
Partners:	CBBEP										
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none">• Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Shrimporee, Seafair, Oysterfest, Great Texas Birding Classic, International Migratory Bird Day and others.• Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support.• Newsletter “Living On The Edge” – The redesigned newsletter is an important outreach tool keeping Estuary Council members and the public informed about regional environmental issues and Program activities.• Website – The redesigned website is frequently updated with special features and information about the CBBEP.• Brochure – The brochure provides an overview of the history, purpose and activities of the CBBEP.• CBBEP Annual Meeting and CBBF Public Forums – The Annual Meeting provides the Estuary Committees with Program project updates. Public Forums take place monthly in partnership with the Coastal Bend Bays Foundation.• National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues.• Other Outreach Opportunities - Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.										
Project Status:	Project is approximately 85% complete and should be completed by 06/30/04. The Project Manager is Monika De La Garza.										
Leveraging Role	Primary										
Resources:	<table><tr><td>Local Partners</td><td>\$25,000</td><td></td></tr><tr><td>TCEQ Funds</td><td>\$31,500</td><td></td></tr><tr><td>Total Program Resources</td><td></td><td>\$56,500</td></tr></table>		Local Partners	\$25,000		TCEQ Funds	\$31,500		Total Program Resources		\$56,500
Local Partners	\$25,000										
TCEQ Funds	\$31,500										
Total Program Resources		\$56,500									
	<table><tr><td>In-Kind – Various</td><td>\$250,000</td><td></td></tr><tr><td>Total Project Resources</td><td></td><td>\$306,500</td></tr></table>		In-Kind – Various	\$250,000		Total Project Resources		\$306,500			
In-Kind – Various	\$250,000										
Total Project Resources		\$306,500									

0314 – ESTUARY EXHIBIT REDESIGN AT THE TEXAS STATE AQUARIUM

Partners:	Texas State Aquarium		
Description:	This project will design a new exhibit gallery highlighting Texas Living Shores and explore the Gulf Coast shoreline. The new gallery will focus on the entire shoreline ecosystem including estuarine, barrier island and nearshore habitats. Visitors will learn about the vital role that marshes, bays, seagrass beds and barrier islands play in the ecology of the oceans and how they can help protect these resources.		
Project Status:	Project is approximately 25% complete and should be completed by 12/31/04. The Project Manager is Monika De La Garza.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$6,000	
	Total Program Resources		\$6,000
	Match – Texas State Aquarium	\$20,000	
	Total Project Resources		\$26,000

PEO-2 Establish a Bay Day Celebration to focus attention on bay resources and uses.

FY01-03

Primary Project(s)

- 9909 & 0115 (partial) – Bay Stewardship and Celebration Day(s) (completed)
- 0215 – Various Public Outreach and Education Projects (completed)
- 0313 – Public Outreach Events and Activities (85 percent complete)

Secondary Project(s)

- 0208 – Walk-through-the-Wetlands / Adopt-A-Wetland
- 0303 – Public Education & Outreach Media Campaign
- 0304 – Walk-Through-the-Wetlands / Adopt-A-Wetland

FY99-00

Primary Project(s)

N/A

Secondary Project(s)

N/A

PEO-2 Primary Project

9909 & 0115 (PARTIAL) – BAY STEWARDSHIP AND CELEBRATION DAY(S)			
Partners:	Coastal Bend Bays Foundation		
Funding:	9909 -\$10,000; 0115 (partial) - \$10,000		
Description:	In an effort to promote recognition of bay resources and public stewardship, the CBBEP and the Coastal Bend Bays Foundation are working together to create educational and fun public events. Efforts have focused on Earth Day/Bay Day in April and Bayfest in September, of each year. Although these events each have their own purpose, together we have been able to jointly promote awareness of our bays and estuaries.		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$11,508	
	Local Partners	\$8,492	
	Total Program Resources		\$20,000
	Match – various local organizations	\$45,000	
	In-kind– various local organizations	\$12,500	
	Total Project Resources		\$77,500

0215 – VARIOUS PUBLIC OUTREACH AND EDUCATION PROJECTS	
Partners:	CBBEP & others
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Aransas Pass Shrimpooree, Rockport Seafair, Fulton Oysterfest and others. • CBBEP Newsletter “Around the Bend” - The newsletter is an important outreach tool and keeps Estuary Council members and the public informed about local environmental issues and Program activities. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. • Public Outreach Through Media – Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$19,000
	TCEQ Funds \$32,500
	Total Program Resources \$51,500
	In-Kind – Various \$250,000
	Total Project Resources \$251,500

0313 – PUBLIC OUTREACH EVENTS AND ACTIVITIES	
Partners:	CBBEP
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Shrimptoree, Seafair, Oysterfest, Great Texas Birding Classic, International Migratory Bird Day and others. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • Newsletter “Living On The Edge” – The redesigned newsletter is an important outreach tool keeping Estuary Council members and the public informed about regional environmental issues and Program activities. • Website – The redesigned website is frequently updated with special features and information about the CBBEP. • Brochure – The brochure provides an overview of the history, purpose and activities of the CBBEP. • CBBEP Annual Meeting and CBBF Public Forums – The Annual Meeting provides the Estuary Committees with Program project updates. Public Forums take place monthly in partnership with the Coastal Bend Bays Foundation. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. • Other Outreach Opportunities - Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.
Project Status:	Project is approximately 85% complete and should be completed by 06/30/04. The Project Manager is Monika De La Garza.
Leveraging Role	Primary
Resources:	Local Partners \$25,000
	TCEQ Funds \$31,500
	Total Program Resources \$56,500
	In-Kind – Various \$250,000
	Total Project Resources \$306,500

PEO-3

Provide curricula for all levels of environmental education and promote greater use of outdoor educational facilities as a means of reaching children, young people and adults.

FY01-03**Primary Project(s)**

- 9909 & 0115 (partial) – Bay Stewardship and Celebration Day(s) (completed)
- 0116 – Bay Ambassador Program (completed)
- 0117 – Keepers of the Coast (completed)
- 0206 – Bay Ambassador Program (completed)
- 0207 – Keepers of the Coast (completed)
- 0215 – Various Public Outreach and Education Projects (completed)
- 0313 – Public Outreach Events and Activities (*85 percent complete*)
- 0315 – Teaching Environmental Science & Applied Connections Course (completed)
- 0317 – Keepers of the Coast (completed)

Secondary Project(s)

- 0101 – Ecotourism Management and Stewardship Promotion Project
- 0118 – Hazel Bazemore Park Habitat Protection and Public Access Enhancement Project
- 0120 – Paradise Pond Habitat Protection and Public Access Enhancement Project
- 0121 – Mollie Beattie Habitat Protection and Public Access Enhancement Project
- 0122 – Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project
- 0208 – Walk-through-the-Wetlands / Adopt-A-Wetland
- 0303 – Public Education & Outreach Media Campaign
- 0304 – Walk-Through-the-Wetlands / Adopt-A-Wetland
- 0314 – Estuary Exhibit Redesign at the Texas State Aquarium

FY99-00**Primary Project(s)**

- 0011 – Promoting Multicultural Involvement in Coastal Bend Environmental Issues

Secondary Project(s)

- 0014 – Ecotourism Strategic Plan and Support Materials

PEO-3 Primary Project

#0115 (PARTIAL) – VARIOUS PUBLIC EDUCATION AND OUTREACH PROGRAMS										
Partners:	(CBBEP Staff Project) with many external partners including the CBBF, TAMU-CC, USEPA Gulf of Mexico Program and others.									
Description:	<p>Six smaller projects are lumped together under project #0115 for administrative purposes. Two of those projects are specifically related to PEO-3. While these projects may have overlapping goals each is a separate effort unto itself.</p> <p>A total of \$10,000 has been allocated to sponsor a Teaching Environmental Science Workshop held each summer at Texas A&M Corpus Christi. Science teachers throughout South Texas are invited to attend the workshop to learn more about the bays and estuaries and specific projects and lesson plan materials are provided to the teachers. The National Ocean Science Bowl (\$5,000 allocation) is a competition between high schools in the State of Texas. Based on the old "College Bowl" format teams compete against each other to demonstrate their knowledge on ocean issues. The winner of the Texas event moves on to the national competition.</p>									
Project Status:	This project has been completed.									
Resources:	<table><tr><td>Local Partners</td><td>\$15,000</td><td></td></tr><tr><td>Total Program Resources</td><td></td><td>\$15,000</td></tr><tr><td>Total Project Resources</td><td></td><td>\$15,000</td></tr></table>	Local Partners	\$15,000		Total Program Resources		\$15,000	Total Project Resources		\$15,000
Local Partners	\$15,000									
Total Program Resources		\$15,000								
Total Project Resources		\$15,000								

PEO-3 Primary Project

0116 – BAY AMBASSADOR PROGRAM		
Partners:	Texas Agricultural Extension Service	
Description:	This project targets students from “non-coastal” schools in the Coastal Bend and provides educational programs about the bays and estuaries. The Texas Agricultural Extension Service (TAES) is well situated to reach out to these communities and trains student leaders on bay resource management issues. They in turn reach out to other students and the greater community at livestock shows, high school "Ag" days and other events. In partnership with the Texas State Aquarium, TAES uses the mobile aquarium to further this outreach effort.	
Project Status:	This project has been completed.	
Leveraging Role	Primary	
Resources:	TCEQ Funds	\$12,500
	USEPA – \$320 Funds	\$37,500
	Total Program Resources	\$50,000
	Match – Texas Ag. Extension Service	\$30,000
	In-kind – various regional organizations	\$7,529
	Total Project Resources	\$87,529

PEO-3 Primary Project

0117 – KEEPERS OF THE COAST	
Partners:	Texas State Aquarium
Description:	The Texas State Aquarium (TSA) is implementing this project in rural and low-income school districts to provide an enhanced learning experience focused on the marine resources of the Gulf of Mexico, especially the bays and estuaries. This multi-phased project addresses both the needs of teachers for background information and learning materials and the need for students to have some hands-on experiences. The TSA will either travel to the school districts or bring the teachers and students to the Aquarium.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$47,000
	Total Program Resources \$47,000
	Match – local foundations \$2,700
	In-kind – Texas State Aquarium \$7,000
	Total Project Resources \$56,700

PEO-3 Primary Project

0206 – BAY AMBASSADOR PROGRAM	
Partners:	Texas Agricultural Extension Service
Description:	This project targets students from “non-coastal” schools in the Coastal Bend and provides educational programs about the bays and estuaries. The Texas Agricultural Extension Service (TAES) is well situated to reach out to these communities and trains student leaders on bay resource management issues. They in turn reach out to other students and the greater community at livestock shows, high school "Ag" days and other events. In FY 2002, the number ‘Ambassadors’ will increase up to 10-15 students.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$50,000
	Total Program Resources \$50,000
	In-kind – Texas Agriculture Extension Service \$50,000
	Total Project Resources \$100,000

PEO-3 Primary Project

0207 – KEEPERS OF THE COAST	
Partners:	Texas State Aquarium
Description:	This project is being implemented in rural and low-income school districts to enhance curriculum about marine resources, the Gulf of Mexico and especially, bays and estuaries. This multi-phased project addresses the teachers' needs for background and learning materials, and the student needs for hands-on curricula. This is the continuation of FY01 efforts and will provide approximately 8 schools, 56 educators, and 1120 students with an enhanced educational experience.
Project Status:	Project has been completed.
Leveraging Role	Primary
Resources:	TCEQ Funds \$50,000
	Total Program Resources \$50,000
	In-Kind – Texas State Aquarium \$50,000
	Total Project Resources \$100,000

PEO-1 — PEO-5 Primary Project

0215 – VARIOUS PUBLIC OUTREACH AND EDUCATION PROJECTS	
Partners:	CBBEP & others
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Aransas Pass Shrimporree, Rockport Seafair, Fulton Oysterfest and others. • CBBEP Newsletter “Around the Bend” - The newsletter is an important outreach tool and keeps Estuary Council members and the public informed about local environmental issues and Program activities. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. • Public Outreach Through Media – Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$19,000
	TCEQ Funds \$32,500
	Total Program Resources \$51,500
	In-Kind – Various \$250,000
	Total Project Resources \$251,500

0313 – PUBLIC OUTREACH EVENTS AND ACTIVITIES

Partners:	CBBEP		
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Shrimporee, Seafair, Oysterfest, Great Texas Birding Classic, International Migratory Bird Day and others. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • Newsletter “Living On The Edge” – The redesigned newsletter is an important outreach tool keeping Estuary Council members and the public informed about regional environmental issues and Program activities. • Website – The redesigned website is frequently updated with special features and information about the CBBEP. • Brochure – The brochure provides an overview of the history, purpose and activities of the CBBEP. • CBBEP Annual Meeting and CBBF Public Forums – The Annual Meeting provides the Estuary Committees with Program project updates. Public Forums take place monthly in partnership with the Coastal Bend Bays Foundation. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. <p>Other Outreach Opportunities - Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.</p>		
Project Status:	Project is approximately 85% complete and should be completed by 06/30/04. The Project Manager is Monika De La Garza.		
Leveraging Role	Primary		
Resources:	Local Partners	\$25,000	
	TCEQ Funds	\$31,500	
	Total Program Resources		\$56,500
	In-Kind – Various	\$250,000	
	Total Project Resources		\$306,500

PEO-3 Primary Project

0315 – TEACHING ENVIRONMENTAL SCIENCE & APPLIED CONNECTIONS COURSE

Partners:	TAMU-CC		
Description:	<p>This project supports environmental education for teachers. The courses are provided by TAMU-CC and include professional development credits.</p> <ul style="list-style-type: none"> • Teaching Environmental Science – This graduate level course is available to secondary school teachers. Participants receive teaching materials and are actively engaged in formal and informal training on natural resource management issues unique to the Coastal Bend. Workshops and teacher training classes for key educators and leaders is also offered. TAMU-CC awards three graduate credit hours and the Texas Education Agency awards 45 hours of TEEAC credit. • Applied Connections Course – This course is offered to math, science and communications teachers for grades 5-12 to enhance their role as educators and student counselors. The course increases awareness of local industries, employment opportunities and demonstrates the application of classroom objectives in real world applications. Participants then create new activities for the classroom based this experience. 		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$15,000	
	Total Program Resources		\$15,000
	In-Kind – TAMU-CC	\$30,000	
	Total Project Resources		\$45,000

PEO-3 Primary Project

0317 – KEEPERS OF THE COAST

Partners:	Texas State Aquarium		
Description:	<p>This project is being implemented in rural and low-income school districts to enhance curriculum about marine resources, the Gulf of Mexico and especially, bays and estuaries. The project provides a variety of components including in-service training or workshops for teachers, onsite outreach visits and hands-on learning centers, community projects, family learning events and distribution of the KOTC Teacher Resource Guide. The programs and activities in the KOTC Resource Guide support the state education standards and the National Environmental Education Guidelines.</p>		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	TCEQ Funds	\$25,000	\$
	Total Program Resources		\$25,000
	In-Kind – Texas State Aquarium	\$50,000	
	Total Project Resources		\$75,000

PEO-4 Develop and implement a regional public education and outreach strategy.

FY01-03	Primary Project(s)	<ul style="list-style-type: none"> 0215 – Various Public Outreach and Education Projects (completed) 0313 – Public Outreach Events and Activities (85 percent complete)
	Secondary Project(s)	<ul style="list-style-type: none"> 0316 – Nonpoint Source Outreach & Education Project

FY99-00	Primary Project(s)	N/A
	Secondary Project(s)	<ul style="list-style-type: none"> 9903 & 0008 – Beneficial Uses of Dredged Material

PEO-1 — PEO-5 Primary Project

0215 – VARIOUS PUBLIC OUTREACH AND EDUCATION PROJECTS			
Partners:	CBBEP & others		
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues.</p> <ul style="list-style-type: none"> Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Aransas Pass Shrimporee, Rockport Seafair, Fulton Oysterfest and others. CBBEP Newsletter “Around the Bend” – The newsletter is an important outreach tool and keeps Estuary Council members and the public informed about local environmental issues and Program activities. Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. National Ocean Science Bowl – This academic competition is fun, educational and promotes awareness of ocean-related issues. Public Outreach Through Media – Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities. 		
Project Status:	This project has been completed.		
Leveraging Role	Primary		
Resources:	Local Partners	\$19,000	
	TCEQ Funds	\$32,500	
	Total Program Resources		\$51,500
	In-Kind – Various	\$250,000	
	Total Project Resources		\$251,500

0313 – PUBLIC OUTREACH EVENTS AND ACTIVITIES	
Partners:	CBBEP
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Shrimpooree, Seafair, Oysterfest, Great Texas Birding Classic, International Migratory Bird Day and others. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • Newsletter “Living On The Edge” – The redesigned newsletter is an important outreach tool keeping Estuary Council members and the public informed about regional environmental issues and Program activities. • Website – The redesigned website is frequently updated with special features and information about the CBBEP. • Brochure – The brochure provides an overview of the history, purpose and activities of the CBBEP. • CBBEP Annual Meeting and CBBF Public Forums – The Annual Meeting provides the Estuary Committees with Program project updates. Public Forums take place monthly in partnership with the Coastal Bend Bays Foundation. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. • Other Outreach Opportunities - Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.
Project Status:	Project is approximately 85% complete and should be completed by 06/30/04. The Project Manager is Monika De La Garza.
Leveraging Role	Primary
Resources:	Local Partners \$25,000
	TCEQ Funds \$31,500
	Total Program Resources \$56,500
	In-Kind – Various \$250,000
	Total Project Resources \$306,500

PEO-5 Promote public participation and recognition programs to protect the bay systems and its resources.

FY01-03

- | | |
|-----------------------------|---|
| Primary Project(s) | <ul style="list-style-type: none"> • 0115 (partial) – Various Public Education and Outreach Programs (Friends of the Bay & Environmental Excellence Recognition Programs) • 0215 – Various Public Outreach and Education Projects (completed) • 0313 – Public Outreach Events and Activities (85 percent complete) |
| Secondary Project(s) | <ul style="list-style-type: none"> • 0104 - Colonial Waterbird Rookery Island Management within the Coastal Bend Region • 0208 – Walk-through-the-Wetlands / Adopt-A-Wetland • 0213 - Colonial Waterbird / Avian Resources Project • 0302 - Colonial Waterbird Rookery Island Management • 0303 – Public Education & Outreach Media Campaign • 0304 – Walk-Through-the-Wetlands / Adopt-A-Wetland |

FY99-00

- | | |
|-----------------------------|-----|
| Primary Project(s) | N/A |
| Secondary Project(s) | N/A |

PEO -5 Primary Project

0115 (PARTIAL) – VARIOUS PUBLIC EDUCATION AND OUTREACH PROGRAMS	
Partners:	This project had many external partners including the CBBF, TAMU-CC, USEPA Gulf of Mexico Program and others.
Description:	Six smaller projects are lumped together under project #0115 for administrative purposes. Two are specifically related to PEO-5. An additional \$5,000 was allocated to the “Friends of The Bay” (FOB) program to recognize local businesses that meet environmental criteria and awarded them “Friend of the Bay” status. The Environmental Excellence Recognition Program (\$5,000 allocation) will annually recognize leading individuals and organizations whose actions have helped to improve the local environment.
Project Status:	This project has been completed.
Leveraging Role	N/A
Resources:	Local Partners \$10,000
	Total Program Resources <u>\$10,000</u>
	Total Project Resources <u>\$10,000</u>

0215 – VARIOUS PUBLIC OUTREACH AND EDUCATION PROJECTS	
Partners:	CBBEP & others
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Aransas Pass Shrimporee, Rockport Seafair, Fulton Oysterfest and others. • CBBEP Newsletter “Around the Bend” - The newsletter is an important outreach tool and keeps Estuary Council members and the public informed about local environmental issues and Program activities. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. • Public Outreach Through Media – Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.
Project Status:	This project has been completed.
Leveraging Role	Primary
Resources:	Local Partners \$19,000
	TCEQ Funds \$32,500
	Total Program Resources \$51,500
	In-Kind – Various \$250,000
	Total Project Resources \$251,500

0313 – PUBLIC OUTREACH EVENTS AND ACTIVITIES	
Partners:	CBBEP
Description:	<p>These projects promote effective natural resource management policies and stewardship through greater understanding of environmental issues. Project elements are listed below.</p> <ul style="list-style-type: none"> • Community Events and Festivals – The CBBEP is an active participant at community events including: Bayfest, Earth Day/Bay Day, Shrimporee, Seafair, Oysterfest, Great Texas Birding Classic, International Migratory Bird Day and others. • Coastal Bend Wildlife Photo Contest – This program awards prizes to photographers and landowners of winning wildlife photos from the Coastal Bend. The contest promotes the protection and preservation of private lands and the wildlife they support. • Newsletter “Living On The Edge” – The redesigned newsletter is an important outreach tool keeping Estuary Council members and the public informed about regional environmental issues and Program activities. • Website – The redesigned website is frequently updated with special features and information about the CBBEP. • Brochure – The brochure provides an overview of the history, purpose and activities of the CBBEP. • CBBEP Annual Meeting and CBBF Public Forums – The Annual Meeting provides the Estuary Committees with Program project updates. Public Forums take place monthly in partnership with the Coastal Bend Bays Foundation. • National Ocean Science Bowl - This academic competition is fun, educational and promotes awareness of ocean-related issues. • Other Outreach Opportunities - Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities.
Project Status:	Project is approximately 85% complete and should be completed by 06/30/04. The Project Manager is Monika De La Garza.
Leveraging Role	Primary
Resources:	Local Partners \$25,000
	TCEQ Funds \$31,500
	Total Program Resources \$56,500
	In-Kind – Various \$250,000
	Total Project Resources \$306,500



List of Attachments

1. Memo: Status Report on Development of Environmental Indicators and Environmental Scorecard
2. Staff Descriptions
3. CBBEP Workplan FY01
4. CBBEP Workplan FY02
5. CBBEP Workplan FY03
6. USEPA Funded Travel Summary
7. Public Outreach & Education - *Protecting Our Bays and Estuaries*

Attachment I

Memo: Status Report on Development of Environmental Indicators and Environmental Scorecard



Coastal Bend Bays & Estuaries Program, Inc.

1305 N. Shoreline Blvd, Ste. 205, Corpus Christi, Texas 78401-1500

361-885-6202 (phone) • 361-883-7801 (fax)

Status Report on Development of Environmental Indicators and Environmental Scorecard March 29, 2004

The CBBEP has been actively engaged in laying the groundwork for the development of environmental indicators and associated environmental scorecard. Our ongoing efforts have been focused in three areas.

First, and with support from EPA's Region 6 office, we have been reviewing efforts by other NEPs and other organizations in order to understand the indicator selection process utilized and assess the format of the scorecard. We have been impressed by the many different approaches employed by the various organizations. It is our observation that the intended audience of the scorecard often dictates the selection of specific indicators. A scorecard developed for the general, non-scientist public would be different than one developed for scientist and professional resource managers. We also note that the "scorecards" we have reviewed run the range from lengthy reports to something as simple as one page table with letter grades for the different indicators. We have also learned that some programs, after deciding on indicators, had quite a bit of difficulty reaching a consensus on how to interpret the data and assigning a "score" to the various indicators. We hope to avoid those difficulties.

Second, at the time the CBBEP completed its CCMP it was recognized that there were considerable "data gaps" in our knowledge of bay conditions. The CBBEP has been engaged in a comprehensive monitoring program to assess water quality, sediment quality (including toxicity), and benthic diversity. The results of that multi-year monitoring effort are just now starting to become available and we anticipate using that data as the basis for our environmental indicators and report card. We have made sure that other data collection efforts, such as fisheries data, have continued to be collected by our partners. Information collected by our partners will be made available for use in the Program's scorecard.

Third, and perhaps most important, we have initiated stakeholder involvement in the development and selection of the indicators best suited to tell the story of our bays and estuaries. In addition, the CBBEP has just recently reorganized its advisory committee structure with the creation of a number of implementation teams each focused on specific areas of the CCMP. These new implementation teams will be charged with helping to identify and develop key indicators. The program has also created a Coordinating Team charged with the responsibility of overseeing the development of indicators and scorecard. A knowledgeable stakeholder, Ms. Carola Serrato, has volunteered to Chair the Coordinating Team and lead the effort to develop environmental indicators and the environmental scorecard.

Recognizing that the development of indicators is a significant effort the CBBEP Board of Directors is considering the need for either additional staff support for this effort or the use of consultants in order to complete this effort within the next 12 to 18 months.

Attachment 2

Staff Descriptions

Staff Descriptions

Title	Name	Activities
Executive Director	Ray Allen	Responsible for the overall management and planning of the Program including finance, budget, personnel, contracts, and communications. Acts on behalf of the Board of Directors and the Executive Council to carry out the orders and resolutions of those governing committees.
Administrative Assistant	Alynn Riley	Provide administrative support to the Executive Director and staff Responsible for general office operations including communications and mail routing, meeting plans, schedules and preparation, external correspondence, office equipment and inventory management, and maintenance of files and contacts database
Acting Director, Finance and Budget	Alice Sanchez	Responsible for program finances, budget and planning; reports to the Executive Director with direct financial reporting responsibility to the Board of Directors; point of contact with TCEQ and EPA on fiscal matters; responsible for daily business operations including payroll, disbursements, vouchers, payables and receivables. Reports to the Board of Directors and the Executive Director on fiscal matters.
Contract Manager	Alice Sanchez	Responsible for tracking and reporting on all fiscal obligations and payments related to CBBEP contracts; provide quarterly and summary reports to state and federal agencies; process contractor requests for payments. Reports to the Executive Director.
Director, Project Implementation	Leo Trevino	Leads the Program's planning and technical assistance efforts in project management. Identify research needs, resource management and monitoring projects; identify and/or develop funding sources and partners to further project goals and objectives; point of contact for CBBEP project contracts; responsible for development and/or review of Request for Proposal, Scope of Work, QAPP, progress reports, budget and payment vouchers. Reports to the Executive Director.
Project Manager	Amy Hanna & James Bowman	Identify research needs, resource management and monitoring projects; identify and/or develop funding sources and partners to further project goals and objectives; point of contact for CBBEP project contracts; responsible for development and/or review of Request for Proposal, Scope of Work, QAPP, progress reports, budget and payment vouchers. Reports to the Executive Director
Public Relations & Outreach Manager	Monika K. De La Garza	Responsible for coordination of external communications, media relations, and outreach / education strategies. Reports to the Executive Director
Project Manager (Special Projects)	Gene Blacklock & David Newstead	Work under special arrangements to complete two large projects to develop management strategies for reversing the long-term decline in colonial waterbird populations. These positions will be totally funded through a grant with the Gulf of Mexico Program.

Attachment 3

CBBEP Workplan FY01

Fiscal Year 2001



Annual Work Plan

September 1, 2000 – August 31, 2001

COASTAL BEND BAYS & ESTUARIES PROGRAM

FY 2001 Annual Work Plan

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The CBBEP Executive Council approved FY 2001 Annual Work Plan on July 27, 2000

I. Introduction

This FY 2001 Cooperative Agreement Work Plan will allow the Estuary Council of the Coastal Bend Bays & Estuaries Program (CBBEP) to begin the third year implementation of the *Coastal Bend Bays Plan*. This Work Plan describes several implementation projects that will be undertaken pending receipt of funds. Additional projects, using non-grant funds, will also be implemented in FY 2001.

All data and information produced under the auspices of the CBBEP will adhere to standardized formats and be made publicly accessible. A public participation strategy, refined under the 'public education and outreach' chapter of the *Bays Plan*, will continue to guide public participation efforts in Comprehensive Conservation and Management Plan (CCMP) implementation. The list of Priority Issues, refined through public input and characterization projects will continue to serve as the focus for implementation.

In its 1987 reauthorization of the Water Quality Act, the U.S. Congress established the National Estuary Program (NEP) to promote long-term planning and management of nationally significant estuaries threatened by pollution, development, or overuse. The Administrator of the Environmental Protection Agency (EPA) was given authority to convene Management Conferences and to award Federal financial assistance grants to approved state programs for the purpose of developing and implementing a CCMP. The Act defines criteria by which Management Conferees are charged with balancing the conflicting uses in target estuaries, while restoring or maintaining their natural character.

The Coastal Bend Bays & Estuaries Program (formerly the Corpus Christi Bay National Estuary Program) was formally established in October 1992 with committee meetings beginning in late 1993. The CBBEP was one of the first NEPs to use a streamlined approach to the development of a CCMP. The goal of the CBBEP to complete a Preliminary CCMP within 12 to 18 months (from 09/01/94) and a Final CCMP in approximately four years (by September 1998) was achieved.

A State-EPA Management Conference Agreement detailing this and other specific outputs of the four-year program was signed in May 1994 by the Regional Administrator of the EPA and the Chairman of the State-lead agency for the Program, the Texas Natural Resource Conservation Commission (TNRCC). The Program Office has been established since December 1993, as a program of the TNRCC, with a non-profit organization established in 1999 to lead implementation.

The project area encompasses the estuarine environment of 75 miles of the south-central Texas coastline, and includes the 12 counties of the region known as the Coastal Bend. This 514 square mile area of water includes all bays, estuaries, and bayous in the Copano, Aransas, Corpus Christi, Nueces, Baffin, and upper Laguna Madre bay systems, which together represent three of the seven major Texas estuaries.

The Priority Issues for the CBBEP are:

- Alteration of Freshwater Inflow into Bays and Estuaries
- Condition of Living Resources
- Loss of Wetlands and Estuarine Habitats
- Degradation of Water Quality
- Altered Estuarine Circulation
- Bay Debris
- Selected Public Health Issues

The *Coastal Bend Bays Plan* has been developed to address each of these priority issues under the following categories of action plans: Human Uses; Maritime Commerce and Dredging; Habitat and Living Resources; Water and Sediment Quality; Freshwater Resources; and Public Education and Outreach. The projects selected for implementation under this Cooperative Agreement reflect a combination of priority and readiness or feasibility for implementation. Implementing Partners for other actions of the *Bays Plan* will likewise be called upon to begin and continue to implement their own portions of the Plan. The role of Program staff is multi-faceted, but will include at a minimum the following tasks: (1) acquire, manage, and disperse funds to implement the *Bays Plan*; (2) develop and implement partnership projects with local governments, state and federal agencies, and private organizations; (3) monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments; and (4) coordinate the environmental monitoring and assessment of Plan implementation effectiveness.

II. Period of Performance

The period of performance for this Cooperative Agreement Work Plan will be September 1, 2000 through August 31, 2001.

III. EPA Program Coordinator and Project Officer

Mr. Tim Landers
CBBEP Program Coordinator
U.S. EPA Region 6
Marine and Wetlands Section (6WQ-EM)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Ms. Betty Ashley
CBBEP Project Officer
U.S. EPA Region 6
Office of State & Tribal Program Section (6WQ-AT)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

IV. Accomplishments To Date

The CBBEP achieved its primary goal for FY 2000, which was to successfully transition from CCMP development into implementation. A new non-profit organization (the CBBEP) was formally established to coordinate implementation of the CCMP. The CBBEP has entered into a number of contractual agreements with the local governments and the State of Texas (TNRCC) for the implementation of the *Bays Plan*. Local funding from the State of Texas and local partners has been secured; the Program Office was relocated; and staff has been hired.

The former CBBEP Management Conference has undergone reorganization, with the establishment of an Executive Council, Bays Council, Citizens Advisory Committee, and the Scientific/Technical Advisory Committee.

New monitoring, tracking, and reporting procedures have been established to assist the Program management function of the Estuary Council, and to align the Program for successful completion of the EPA Biennial review process.

In addition to the administrative tasks associated with getting the CBBEP established as a non-profit, the Program has successfully initiated a number of implementation projects and continues to add additional projects to the list.

The CBBEP is especially proud of its accomplishments in finding new partners to assist with the implementation of the *Bays Plan*. The CBBEP entered into a working relationship with the TNRCC Legal Department and Koch Petroleum to administer \$1.5 million in Supplemental Environmental Project (SEP) Funds to be used for habitat acquisition and reef/rookery island construction and restoration in the CBBEP study area. Additional funding support (\$1.05 million) was committed by the Texas General Land Office – Coastal Erosion and Response Act Program. The Nature Conservancy of Texas has committed \$505,000, along with U.S. Fish and Wildlife funding of \$1 million towards habitat acquisition and protection in Nueces and San Patricio counties. The Gulf of Mexico Program has committed \$136,000 to funding several projects in FY 2001, focusing on rookery island management and On-Site Sewage Facility (OSSF) rehabilitation.

V. Goals for FY 2001

The primary goal for FY 2001 (Year 3 of CCMP Implementation) is to continue the successful initiation and completion of projects developed to implement the *Coastal Bend Bays Plan*.

Program staff will continue to seek additional partners to assist with the implementation of the *Bays Plan*.

VI. Implementation of Projects

Project activities for FY 2001 have been selected for their contribution towards implementation of the *Coastal Bend Bays Plan*. They are grouped under the following two elements:

Task 1.0 CCMP Implementation

Twenty-eight projects will be implemented in FY 2001:

- SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird Habitat in Nueces and Corpus Christi Bays
- SEP 002 Habitat Acquisition and Protection in San Patricio and Nueces Counties
- SEP 003 Bay Shoreline Erosion Protection and Habitat Enhancement Project
- SEP 004 Bayside Shoreline Erosion Protection and Habitat Enhancement Project
- #0101 Ecotourism Management and Stewardship Promotion Project
- #0102 Bay Debris Removal Demonstration Project – End of Pipe Collection System
- #0103 Support Development of Local Land Trust
- #0104 Colonial Waterbird Rookery Island Management within the Coastal Bend Area
- #0105 The Effects of Redhead Ducks on Shoalgrass in the Laguna Madre
- #0106 Bay Shrimping in the Coastal Bend – A Summary of Current Conditions
- #0107 Animal Rescue and Rehabilitation Programs Project
- #0108 Surface Water Quality Monitoring Project, Upper Laguna Madre and Baffin Bay – Phase III
- #0109 Bay Sediment Monitoring Project
- #0110 Atmospheric Deposition Study
- #0111 Nonpoint Source Pollution Prevention Assistance Program
- #0112 Rehabilitation of Failed OSSF (Septic Tanks) in Priority Areas
- #0113 Develop and Implement the Public Outreach Strategy
- #0114 CBBEP Website/ Information Clearinghouse
- #0115 Various Public Education and Outreach Programs
- #0116 Bay Ambassador Program
- #0117 Keepers of the Coast Youth Program
- #0118 Hazel Bazemore Park Public Access Enhancement and Habitat Protection Project
- #0119 Ropes Park Public Access Enhancement and Expansion Project
- #0120 Paradise Pont Habitat Protection and Public Access Enhancement Project
- #0121 Mollie Beattie Coastal Habitat Community Habitat Protection and Public Access Enhancement Project
- #0122 Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project
- #0123 Sarita Wetlands Habitat Enhancement and Public Access Improvement Project

#0124 Lake Whitney and McCampbell Slough Watershed Habitat Protection
and Public Access Improvement Project

Task 2.0 Program Management

With over 140 Estuary Council members actively engaged in various committee activities, Program staff must be prepared to handle a substantial communications and logistics load. The FY 2001 Work Plan is designed to ensure that adequate staff support is available to the Estuary Council and other interested parties, while allowing for an optimum balance of remaining Program funds to be used for contracting services to accomplish the Work Plan goals and schedule. A total of nine people will constitute the Program Office staff.

In addition, the Program Management budget includes all costs for supporting the Program activities, including costs associated with postage, supplies, equipment, travel, training, salaries, fringe benefits, and temporary services.

**Project SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird
Habitat in Nueces and Corpus Christi Bays**

Performing Organization: **CBBEP & Texas General Land Office**
Total Funding: **\$1,350,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2, BTR-3**

Historical shell dredging activities and wave erosion have resulted in the significant reduction of hard substrate reefs and the associated emergent island habitats in Nueces Bay. Hard substrate reefs and emergent rookery islands are important components of the Coastal Bend ecological system. The loss of reef structure reduces the diversity of fisheries habitat, while the reduction in high quality, undisturbed nesting habitat has had a direct detrimental effect on colonial waterbird populations.

Fish and colonial waterbird populations are significant indicators of the overall health of an estuary. CBBEP studies have documented the decrease of reef habitat as well as the declining populations of certain colonial waterbird species. It is important to note that colonial waterbirds have diverse habitat requirements for nesting and foraging depending on the species. Emergent hard substrate reefs and rookery islands play an important role because they provide protection from predators and minimize human disturbance.

Enhancement of these hard substrate reefs and rookery islands is best accomplished by supplementing the remaining reefs and islands with appropriate materials (i.e. crushed limestone, and dredged material) to provide suitable habitat for colonial waterbirds. All work will be scheduled to avoid the nesting season thus minimizing disturbance to the wildlife. The long-term benefits of this project include restoration of hard substrate reefs, which enhances habitat diversity while increasing suitable nesting and roosting habitat for colonial waterbirds.

The CBBEP is working with the Texas General Land Office – Coastal Erosion Planning and Response Act Program on this effort.

Project Objectives:

1. Enhancement of existing hard substrate reefs (increase habitat diversity)
2. Increase available colonial waterbirds nesting and roosting habitat

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of committee formation
Quarterly Progress Reports.....	quarterly
Complete Reef and Rookery Island Enhancement	6/30/01
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Project SEP 002 Habitat Acquisition and Protection in San Patricio and Nueces Counties

Performing Organization: **CBBEP & The Nature Conservancy of Texas**
Total Funding: **\$2,505,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2, SM-3**

Due to its close proximity to a major urban area (Corpus Christi), much of the shoreline and wildlife habitat areas around Nueces Bay have experienced degradation due to land-use conversion and/or human encroachment. Essentially all of the southern and eastern shorelines of Nueces Bay have experienced a significant amount of anthropogenic impact. The northern shoreline of Nueces Bay, in San Patricio County, has experienced a slow but steady increase in residential and commercial development creeping to the west from the City of Portland. Only the Nueces River Delta, located at the west end of Nueces Bay, remains in relatively natural condition. Other areas of concern include the remaining wetlands and undeveloped shoreline areas on Mustang Island along Corpus Christi Bay in Nueces County.

Priority will be given to preserving remaining habitat in the areas around Nueces Bay and Corpus Christi Bay. The best opportunities for preserving or restoring wildlife habitat can be found in the Nueces Delta, along the northern shoreline (and associated drainages), the privately owned shoreline areas along the Portland Causeway (SH 181) and on Mustang Island.

Long-term protection of these areas is best accomplished through acquisition, including either outright ownership or the purchase of conservation easements. Once these areas are protected by acquisition process, future projects can implement management strategies to restore the value and functionality of the habitat.

The CBBEP is working with the Nature Conservancy of Texas on this effort.

Specific Project Objectives:

1. Protection and restoration of wildlife habitat through acquisition and conservation easements
2. Development of a management strategy for each of the properties acquired

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of committee formation
Quarterly Progress Reports	quarterly
Complete Habitat Acquisition	6/30/01
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Project SEP 003 Bay Shoreline Erosion Protection and Habitat Enhancement Project

Performing Organization: **CBBEP & Texas General Land Office**
Total Funding: **\$100,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

The bay shorelines of Refugio, Aransas, and San Patricio counties have experienced chronic shoreline erosion along rural areas on Corpus Christi, Nueces, Aransas, and Copano bays, with average rates of 3 ft/yr. In some areas the erosion rate may reach 5 ft/yr. Some local landowners have used concrete rubble in an effort to stop erosion on the shoreline with little to no success. Even though the erosion problem has not been solved by the addition of rubble, the bays have been littered with debris and concrete, creating a public safety hazard. Wind-driven waves are the presumed major cause of erosion.

The purpose of this project is to stabilize the shoreline and create a vegetated shoreline habitat by planting grass to protect public and private land, historical sites, and adjacent marshes against further losses due to shoreline retreat.

The CBBEP is working with the Texas General Land Office – Coastal Erosion Planning and Response Act Program and the U.S. Department of Agriculture – Natural Resource and Conservation Services on this effort.

Specific Project Objectives:

1. Enhancement of shoreline vegetation (increase habitat diversity)
2. Stabilize and protect shoreline habitat from wave-associated erosion.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of committee formation
Quarterly Progress Reports.....	quarterly
Bay Shoreline Enhancement.....	6/30/01
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Project SEP 004 Bayside Shoreline Erosion Protection and Habitat Enhancement Project

Performing Organization: **CBBEP & Texas General Land Office**
Total Funding: **\$100,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

The Copano Bay shoreline bordering the City of Bayside has been experiencing wave driven erosion. Average erosion rates of 3 ft/yr are common and in some areas erosion may be up to 5 ft/yr. Over the last 100 years extensive shell dredging has occurred in the Copano Bay area including areas adjacent to the City of Bayside. The dredging process has been known to induce important bathymetric changes in the Bay that can result in stronger and higher waves breaking on the shorelines. Furthermore, shoreline vegetation that once protected certain habitats disappeared along many areas on the coastal bays. Some of the reasons for its demise have also included disease, drought (hyper-saline bays), and excessive wave action caused by hurricanes and storms, and anthropogenic impacts such as oil exploration, dredging, boat traffic, and ship wakes. The loss of the shell reefs has resulted in increased erosion along the shorelines of the bay. Wind-driven waves are the presumed major cause of erosion.

The purpose of this project is to develop a ~1100 ft long subsurface breakwater (soft or hard) structure to reduce the wave actions on the shoreline at Bayside City Park and to reshape the shoreline to allow for stabilization with native vegetation.

The CBBEP is working with the Texas General Land Office – Coastal Erosion Planning and Response Act Program on this effort.

Specific Project Objectives:

1. Enhancement of shoreline vegetation (increase habitat diversity)
2. Stabilize and protect shoreline habitat from wave-associated erosion.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of committee formation
Quarterly Progress Reports.....	quarterly
Bay Shoreline Enhancement.....	6/30/01
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Performing Organization: City of Corpus Christi
Total Funding: \$75,000
CBBEP Bays Plan Actions: BTR-1, BTR-3, PEO-5

Encouraging the appropriate use of bay resources is integral to the successful management of a healthy ecosystem. The growing emphasis on ecotourism is important from both an economic and ecologic management perspective. The proactive involvement of the CBBEP in the developing ecotourism arena will help to ensure that critical natural resources are protected for their ecological value and the present and future enjoyment of residents and visitors to the Coastal Bend.

Specific Project Objectives:

1. Utilize input from a Project Advisory Committee to develop a regional ecotourism master strategy.
2. Coordinate a series (over 12 months) of ecotourism events and activities emphasizing appropriate use of the bay resources and bay stewardship.
3. Line up Partners and Sponsors for ecotourism events and activities to carry forward these events in future years.
4. Prepare educational materials for distribution at ecotourism events and activities to promote responsible use and protection of bay resources.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of committee formation
Quarterly Progress Reports.....	quarterly
Regional Ecotourism Master Strategy	12/31/00
Draft Summary Report.....	7/30/01
Final Summary Report.....	8/31/01

Project 0102	Bay Debris Removal Demonstration Project—End of Pipe Collection System
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Performing Organization:	City of Corpus Christi
Total Funding:	\$50,000
CBBEP Bays Plan Actions:	BD-1

Bay debris has an aesthetic impact and can be harmful to wildlife, damaging to habitats, and a concern to public health. Although prevention has been recognized as the most cost effective method of management of bay debris and major efforts are being taken to encourage nonpoint source pollution prevention practices, a considerable amount of debris continues to be observed entering the bay from the storm water collection system. To reduce the amount of debris entering the bay through the storm-water collection system, an end of pipe collection and removal system will be installed at one of the storm water outfalls to determine the effectiveness of this management practice

This demonstration project will be coordinated with the City of Corpus Christi and TNRCC to facilitate regulatory issues. The City of Corpus Christi will be encouraged to seek matching funds for this project due to limited CBBEP funding.

The project will involve researching prefabricated debris collection systems and consideration of engineering requirements to select an appropriate technology. An assessment of potential sites will be conducted to install the system. To the extent allowed by the budget and availability of matching funds, the selected system will then be installed and operated to determine its effectiveness.

Specific Project Objectives:

1. Review information to determine whether collection equipment satisfying the project needs already exists
2. Identify and assess potential installation sites
3. Complete an engineering assessment of the site; design criteria for the collection system
4. To the extent allowed by the budget, install the collection device
5. Use information derived from this project to encourage nonpoint source management practices.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Recommend Site and Collection System	TBD
Install Collection System	TBD
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Performing Organization: Coastal Bend Land Trust (CBBF)
Total Funding: \$150,000
CBBEP Bays Plan Actions: SM-3, HLR-1, HLR-2

During the development of the *Coastal Bend Bays Plan*, the CBBEP Management Conference called for the establishment of a locally administered Land Trust for the purpose of habitat protection. During FY 1999 and FY2000, the CBBEP provided the Coastal Bend Bays Foundation with funds to develop business and financial strategic plans and workshops and literature to support the Coastal Bend Land Trust (CBLT).

The purpose of this project is to acquire property/conservation easements along the Oso Creek area, to preserve habitat, maintain open space, and ensure watershed and water quality protection.

The Coastal Bend Land Trust will work in coordination with the City of Corpus Christi to identify land in the Oso Creek and Oso Bay area that could be acquired for the purpose of conservation and habitat protection. While the majority of the funds will be spent for land/easement acquisition along the Oso Creek and Oso Bay corridor, one-third of the funds will be dedicated to support the land trust program development, community outreach and materials production. The Coastal Bend Land Trust will be requested to find at least a one-to-one match for both the program development and habitat acquisition funding. They will be strongly encouraged to identify even greater matching funds.

Specific Project Objectives:

1. Coordinate with City of Corpus Christi to acquire land/conservation easements in Oso Creek and Oso Bay corridor for purpose of conservation.
2. Identify specific habitat protection objectives for individual lands/easements acquired.
3. Continue to develop the Coastal Bend Land Trust into a self-sustaining organization, seek new partnerships and funding arrangements, pursue land acquisition and habitat protection goals.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Site identification and Prioritization.....	1/31/01
Documentation of Property Acquisition	within 30 days of acquisition
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Project 0104	Colonial Waterbird Rookery Island Management within the Coastal Bend Area
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Performing Organization: CBBEP
Total Funding: \$120,000
CBBEP Bays Plan Actions: HLR-4, HLR-2, D-1, BTR-3, PEO-5

The Living Resources Characterization Report prepared for the Estuary Program documented the declining populations of certain colonial waterbird populations. Colonial waterbird populations are indicators of the overall health of the estuary. Birding, especially viewing colonial waterbirds, is an important and growing component of ecotourism and the local economy.

Building on the efforts of the CBBEP in FY 2000, this project will utilize the CBBEP Colonial Waterbird Rookery Island Management Plan as the basis for implementing specific management actions. It is anticipated that management actions will include, predator control, human disturbance avoidance, nesting substrate supplementation, and vegetation management to enhance rookery island habitat.

Specific Project Objectives:

1. Utilize the management plan to ensure colonial waterbird and associated rookery island sustainability in the CBBEP area.
2. Conduct a workshop for the purpose of soliciting comments and evaluating and strengthening the management plan.
3. Review and prioritize a list for potential rookery island creation or restoration demonstration projects using beneficial dredge material.
4. Continue efforts on modification and construction of nesting site habitat.
5. Continue to promote public programs to protect colonial waterbirds.
6. Develop new outreach materials and signage to reduce impacts of human disturbance on waterbird colonies.

Project Deliverables/Schedule:

Project Work Plan	within 30 days of contract execution
Quarterly Progress Reports	quarterly
Workshop/ Potential Site List	5/31/01
Site Enhancement	TBD
Outreach Materials/Signage	TBD
Site Enhancement	TBD
Draft Summary Report.....	7/31/01
Final Report.....	8/31/01

Project 0105	The Effects of Redhead Ducks on Shoalgrass in the Laguna Madre
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Performing Organization:	Texas A&M University – Kingsville Caesar Kleberg Wildlife Research Institute, and Ducks Unlimited
Total Funding:	\$50,000
CBBEP Bays Plan Actions:	HLR-4, HLR-1, HLR-2

The abundance and distribution of shoalgrass is fundamental to the health of the bay systems. Shoalgrass meadows function as nursery areas for a variety of ecologically and economically important fish and shellfish species. In addition, more than 80% of the redhead ducks winter in the Laguna Madre where they rely exclusively on the rhizomes of shoalgrass for food.

Previous investigations have documented the overgrazing of shoalgrass by redhead ducks and the resulting decline of shoalgrass coverage in the Laguna Madre. Some observers suggest that grazing pressure on shoalgrass is greatest in areas near available freshwater ponds where redhead ducks are concentrated.

The purpose of this effort is to document the relationship between redhead ducks concentrations and grazing pressure on nearby shoalgrass meadows. This information would be used to identify areas where the creation of additional freshwater ponds would be beneficial to reducing overgrazing on shoalgrass.

Specific Project Objectives:

1. Develop a detailed work plan/QAPP.
2. Implement data collection effort to correlate redhead duck concentrations with grazing pressure on shoalgrass meadows.
3. Identify “underutilized” shoalgrass areas and potential sites for supplemental freshwater ponds.

Project Deliverables/Schedule:

Develop Work Plan/QAPP	within 60 days of contract execution/amendment
Quarterly Progress Reports	quarterly
Draft Report	7/31/01
Final Report	8/31/01

Project 0106	Bay Shrimping in the Coastal Bend – A Summary of Current Conditions
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Performing Organization:	Texas A&M University-Corpus Christi, Center for Coastal Studies
Total Funding:	\$50,000
CBBEP Bays Plan Actions:	HLR-4

The commercial bay shrimping industry continues to report a declining catch with resulting impacts to the economic viability of the industry. In addition, the apparent steady decline in the shrimp population may be signaling a major problem with the living resources of the bay system.

In order to avoid any catastrophic upheaval in the bay ecosystem, which would be brought about by a collapse of the bay shrimp population, this effort is intended to provide updated information on bay shrimping in the Coastal Bend. Looking at both bay & bait shrimpers working in local waters, the contractor will collect and summarize, license and registration information, harvest data, economic valuation, catch size, etc. and will consolidate status and trends data for bay shrimp populations (NMFS data & TPWD data). In addition, the contractor will be asked to identify potential management strategies to address the specific needs of the Coastal Bend.

Specific Project Objectives:

1. Utilize input from a Project Advisory Committee to identify the specific information to be collected and analyzed.
2. Initiate contact (workshop) with bay shrimpers for their direct input into the characterization of the local bay shrimping effort.
3. Assemble existing harvest and monitoring data from state and federal resource agencies.
4. Prepare report of findings and management recommendations.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Draft Report	7/31/01
Final Report	8/31/01

Performing Organization: Texas State Aquarium
Total Funding: \$50,000
CBBEP Bays Plan Actions: HLR-5, HLR-4

Animal rescue and rehabilitation programs provide important information on species of concern and increase public awareness about our ecosystem. Each year thousands of protected, threatened, or endangered species become stranded, ill, or injured along the Texas coast. Services provided by existing programs include stranding response, evaluation, temporary refuge for exhausted migrant animals, acute and comprehensive medical care, release of rehabilitated animals, and long-term care for permanently disabled non-releasable animals. While professionals and volunteers devote great efforts to maintaining the invaluable rescue and rehabilitation programs, the programs have no long-term or permanent funding source.

Rescued, rehabilitated, and released animals provided important information and valuable data to researchers about the condition of our ecosystem, endangered species, and animal behavior and travel patterns. The primary goal of rescue programs is to return animals to the wild; however, animals are sometimes non-releasable. These rehabilitated, but non-releasable animals, can provide many positive results. These animals are invaluable tools for education and for encouraging public environmental stewardship. Rescued animals remind the public of how closely we are tied to our environment, and of how our actions ultimately affect the health of our coastal waters and the animals that depend on them.

Specific Project Objectives:

1. Conduct workshop to establish a coordinated network of communication among professionals and volunteers involved with animal rescue and rehabilitation.
2. Develop an animal rescue and rehabilitation management plan that will identify resource and funding needs of marine mammal, turtle, and bird rescue and rehabilitation programs.
3. Implement the priority items established in the animal rescue and rehabilitation management plan.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract execution
Workshop	within 30 days of approved Work Plan
Quarterly Progress Reports	quarterly
Draft Report	7/31/01
Final Report	8/31/01

Project 0108	Surface Water Quality Monitoring Project, Upper Laguna Madre and Baffin Bay – Phase III (Continuation)
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Performing Organization:	Nueces River Authority
Total Funding:	\$100,000
CBBEP Bays Plan Actions:	WSQ-1, WSQ-3, WSQ-4, WSQ-5

In 1999 and 2000, CBBEP supported efforts to provide an intensive, targeted water quality monitoring and assessment of Corpus Christi Bay, Nueces Bay, Corpus Christi Inner Harbor, and Aransas Bay. In 2001, CBBEP will focus surface water quality monitoring efforts in the Upper Laguna Madre and Baffin Bay areas.

Through the partnership efforts of state and federal agencies and stakeholders, the project will include development, design, implementation and analysis of a statistically powerful water quality monitoring plan. Sampling will include monitoring of routine field and chemical parameters, and total and dissolved metals. Combining the sampling area of the FY2000 and FY2001 water quality monitoring projects provides statistically powerful data coverage from the entire coastal waters of the CBBEP area. The data will provide sufficient baseline information to adequately characterize and assess current water quality condition of CBBEP estuarine systems and will provide a measurement for determining the overall health of our ecosystem.

It is imperative to investigate water systems with potentially correctable problems in support of water quality standards and development of the Total Maximum Daily Loads (TMDL) program. The scientific approaches and methods employed in the collection of this high quality data will serve to benefit the development and subsequent implementation of the TMDL program. The frequency and intensity of this monitoring project provides extensive and scientifically valid data on existing water quality conditions and will provide the water quality data necessary to evaluate the effectiveness of current management practices.

Specific Project Objectives:

1. Develop scope of work.
2. Conduct monitoring to collect data.
3. Conduct analysis of monitoring results to determine water quality.

Project Deliverables/Schedule:

Project Work Plan/QAPP	within 30 days of contract execution
Quarterly Progress Reports	quarterly
Draft Report	7/31/01
Final Report	8/31/01

Project 0109 Bay Sediment Monitoring Project

Performing Organization: **Texas A&M University-Corpus Christi, Center for Coastal Studies**
Total Funding: **\$75,000**
CBBEP Bays Plan Actions: **WSQ-1, WSQ-3, WSQ-4, WSQ-5**

CBBEP is supporting efforts to provide an intensive, targeted water quality monitoring of the CBBEP project area including Corpus Christi Bay, Nueces Bay, Corpus Christi Inner Harbor, Aransas Bay, and the Upper Laguna Madre. Sediment sampling and analysis will support the water quality monitoring, provide clarification of water quality concerns, and provide a valuable component which will aid in evaluating the health of the ecosystem.

Through the partnership efforts of state and federal agencies and stakeholders, this sediment study project will include development, implementation, and analysis of a sediment sampling that will aid in the assessment of water quality data. The sediment sampling project will allow for collecting additional data to aid in comprehensive monitoring and analysis, identification of possible impairments, identification of sources, and characterization of the CBBEP area water and sediment quality.

The sediment study project objectives are in accordance with the CBBEP Bays Plan to integrate assessment components Water and Sediment Quality and Nonpoint Source Management Action Items. The sediment study will address the need for sufficient monitoring of the ecosystem to provide a screening program tool for future long-term monitoring needs to determine the overall health of our ecosystem. This monitoring project will provide extensive and scientifically valid data on water quality and sediment conditions and will provide the data necessary to evaluate the effectiveness of current management practices.

Specific Project Objectives:

1. Develop QAPP to meet or exceed EPA and TNRCC protocol.
2. Conduct monitoring to collect data.C
3. Conduct analysis of monitoring results to determine sediment quality.

Project Deliverables/Schedule:

Project Work Plan/QAPP.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Draft Report	7/31/01
Final Report	8/31/01

Project 0110 Atmospheric Deposition Study

Performing Organization: **Texas A&M University-Geochemical and
Environmental Research Group**
Total Funding: **\$40,000**
CBBEP Bays Plan Actions: **WSQ-3**

During the development of the CBBP, the Management Conference funded a project to develop a total loadings model that would determine total loads to Corpus Christi Bay. Data gaps in atmospheric pollutants and their sources were identified as a result of this project. A follow-up study was funded to determine atmospheric pollutant contributions to the bay system. This study has been on-going since April 1997. In June 2000, the site was established as a part of the National Atmospheric Deposition Program-National Trends Network (NADP-NTN).

The proposed FY 2001 project will be a continuation of the on-going project and will provide an additional year of data. This project will provide resource managers with a data set capable of capturing data variations for evaluating trends in atmospheric pollutant sources. Data gathered as part of the NADP-NTN will be consistent with other sites around the country for comparative purposes

At the present time, the Corpus Christi has the only coastal monitoring site in existence along the Texas coast. The continued monitoring of this site will provide information from this area to both national (U.S.) and regional (Gulf of Mexico) efforts as well as to local (Coastal Bend) efforts. The data will be evaluated to identify actions that can be administered to reduce the amounts of undesirable deposition.

Specific Project Objectives:

1. Continue to coordinate with the National Atmospheric Deposition Program (NADP) site with TAMU-GERG and Illinois State Water Survey personnel to gather sufficient information to characterize/quantify the loadings to the bay and estuary.
2. Develop work plan and amend the existing contractor scope of work to include additional components necessary to characterize the nutrient and pollutant loadings to the bay and estuary.
3. Synthesize the data and make recommendations on actions that if undertaken have the potential of reducing undesirable deposition.

Project Deliverables/Schedule:

Project Work Plan/QAPP	within 30 days of contract execution
Quarterly Progress Reports	quarterly
Draft Report	7/31/01
Final Report	8/31/01

Project 0111 Nonpoint Source Pollution Prevention Assistance Program

Performing Organization: **Texas A&M University–Corpus Christi,
University Outreach**

Total Funding: **\$75,000**

CBBEP Bays Plan Actions: **NPS-1**

CBBEP characterization studies have documented the contribution of nonpoint source pollution and the difficulty of managing that source of pollution to our bays and estuaries. Coupled with projections for significant population growth throughout the Coastal Bend area, nonpoint source pollution management and control will become increasingly important. CBBEP has begun to take action by developing an outreach effort to inform communities of the recent changes in stormwater regulations that may affect their communities. These outreach efforts have been coordinated with TNRCC to avoid duplication of efforts.

Experience has shown that a focused and aggressive educational effort, coupled with an assistance program, can make a real difference in pollution control. Presenting both low cost management solutions and explaining the benefits of voluntary actions have proven to be highly motivating and effective.

The TAMU-CC Pollution Prevention Partnership has had tremendous success in the implementation of voluntary actions to control air emissions and reduce ozone levels. The application of these already proven techniques and methods to nonpoint source pollution prevention and management are currently being applied and are expected to be extremely successful.

Specific Project Objectives:

1. Explore additional outreach mechanisms to better influence communities and organizations to implement nonpoint source management practices.
2. Continue to get participation from communities and organizations to implement nonpoint source pollution prevention management practices.
3. Continue nonpoint source pollution prevention workshops to encourage additional participation.
4. Continue to conduct site visits and provide nonpoint pollution prevention assistance to local businesses and governments.
5. Continue to provide educational materials for students and teachers to instill environmental stewardship in their everyday actions.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract execution
Quarterly Progress Reports	quarterly
Workshop Presentations	6/30/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

Project 0112 Rehabilitation of Failed OSSF (Septic Tanks) in Priority Areas

Performing Organization: **Nueces County**
Total Funding: **\$46,000**
CBBEP Bays Plan Actions: **NPS-3, PH-1, WSQ-1**

Nueces County, the Nueces County Community Action Agency, and CBBEP are working together to install and rehabilitate On Site Sewage Facility (OSSF) systems in Nueces County colonias. There are twenty-four identified colonias in need of septic system rehabilitation or replacement in the Nueces County area. CBBEP applied for and received a Gulf of Mexico Program (GMP) grant to rehabilitate, install, or replace failed septic systems in these identified areas. The highest priority will be assigned to colonias identified as being in close proximity to water body segments listed as threatened, impaired, or of concern.

OSSFs are a cost-effective means for providing sewer service to homes in areas where there is enough land to filter the effluent. However, failing systems can be a threat to public health and result in degradation of surrounding water bodies from their contribution to nonpoint source pollution. A recent study prepared for the Coastal Bend Bays & Estuaries Program identified 20,000 On-Site Sewage Facility (OSSF) systems in four coastal counties within the Coastal Bend. As many as 18 percent of these systems may be failing, with many of those adjacent to impaired water segments.

The goal of this project is to rehabilitate and/or replace as many failing septic systems as possible in underprivileged areas within Nueces County with the funds available. The cost to install one complete septic system is approximately \$3,000-\$3,500. The second objective of this project is to ensure that all systems that are rehabilitated or replaced will be of the highest quality and meet all inspection criteria. The Nueces County Public Health Department will participate in this effort by overseeing all installations and performing permit inspections at each site

Specific Project Objectives:

1. Develop a work plan.
2. Identify as high priority those colonias with failed sewage systems in close proximity to water body segments listed as threatened, impaired, or of concern.
3. Implement the work plan by installing or rehabilitating as many OSSF systems as funds will allow in those colonias identified as high priority.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Draft Report	7/31/01
Final Report.....	8/31/01

Project 0113 Develop and Implement the Public Outreach Strategy

Performing Organization: **CBBEP and Partners**
Total Funding: **\$50,000**
CBBEP Bays Plan Actions: **PEO-1, Others**

Public education and outreach continues to be a major goal for the CBBEP. The successful implementation of the Coastal Bend Bays Plan requires the support of a well informed public. Specific action items can best be achieved through broad public participation and understanding.

The purpose of this project is to design and implement a multi-year public outreach strategy to address a number of specific issues such as freshwater inflows, stormwater pollution prevention, seagrass protection, bay stewardship, etc. The number of issues that will be addressed, and the media to be used in that outreach effort will be determined in the Public Outreach Strategic Plan.

The Public Outreach Strategic Plan will be designed to take advantage of free and low-cost media to the greatest extent possible.

Specific Project Objectives:

1. Develop a multi-year Public Outreach Strategic Plan
2. Identify and develop outreach materials consistent with the plan.
3. Implement the public outreach effort through appropriate media.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Develop Public Outreach Materials	3/31/01
Implement Public Outreach Plan.....	5/31/01
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Performing Organization: CBBEP and Contractors
Total Funding: \$50,000
CBBEP Bays Plan Actions: All

From its inception, the CBBEP has explored options for a cost-effective information clearinghouse to make estuary information accessible and easily searchable (i.e., user-friendly) to the general public. In FY 1999, CBBEP moved closer to that goal with the establishment of an electronic clearinghouse on bay-related resource information.

CBBEP currently has a working website with links to download studies published by the CBBEP. Website visitors can also read previous CBBEP newsletters, find out about local events, visit the virtual library, and link to other estuary-related websites.

Continuing development of the CBBEP website and the information clearinghouse to include thematic maps with highway, county and waterbody boundaries; interactive species checklist; update links in the website; add rain data; develop a CCMP "report card" or an environmental progress report on the estuary; create a CCMP implementation tracking system; and develop ways to further the objectives of the public education and outreach objectives.

Specific Project Objectives:

1. Further develop the information clearinghouse data
2. Update website links, graphics, data
3. Identify other information that will be useful to the public
4. Make all information publicly accessible and easily searchable.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract
Quarterly Progress Reports.....	quarterly
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Project 0115	Various Public Education and Outreach Programs
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Performing Organization:	CBBEP
Total Funding:	Bay Stewardship & Celebration Day
\$10,000	CBBEP Newsletter “Around the Bend”
\$12,000	Teaching Environmental Science
\$10,000	Friends of the Bay Program
\$ 5,000	National Ocean Science Bowl
\$ 5,000	Environmental Excellence Recognition Program
<u>\$ 5,000</u>	
\$47,000	
CBBEP Bays Plan Actions:	BTR-1, PEO-2, PEO-3, PEO-5

The ultimate goals of these public education and outreach projects are to provide the public with the environmental science knowledge to make sound decisions regarding the effective management of bay resources and to promote environmental stewardship through increasing awareness of the resources and the issues regarding their use.

Project Objectives:

- * **Bay Stewardship & Celebration Day** - This public event was established to draw attention to bay resources and environmental protection. Activities for all ages with educational opportunities for all participants will continue to be a major objective. In addition, the CBBEP will develop and sponsor an interactive wetland display to be used for educational purposes at the annual Corpus Christi Bayfest celebration in the fall.
- * **CBBEP Newsletter “Around the Bend”** - The newsletter serves as an important outreach tool and helps to keep Estuary Council members and the general public informed about local environmental issues and activities of the CBBEP.
- * **Teaching Environmental Science** - Educators will gain practical, usable strategies for presenting environmental concepts to students. They will be provided with current resource materials from state and local organizations, and learn easy low-cost activities to help students with critical thinking skills in relation to environmental decision-making.
- * **Friends of the Bay** - The program will utilize voluntary participation by area businesses to adopt themes of resource conservation and protection, through the use of recognizable logos and other packages and graphics that can be used in tourism marketing and other literature for bay-related businesses.
- * **National Ocean Science Bowl** - This event provides the opportunity to increase knowledge of the aquatic environment on the part of students, their teachers and parents, as well as to raise public awareness of ocean-related concerns.
- * **Environmental Excellence Recognition Program** - The program will design and implement an annual environmental award, which will spotlight environmentally responsible actions of local governments, organizations, industries, and citizens.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract
Quarterly Progress Reports.....	quarterly
Event Reports.....	within 30 days of event
Final Summary Reports.....	8/31/01

Project 0116 Bay Ambassador Program

Performing Organization: **Texas Agricultural Extension Service**
Total Funding: **\$50,000**
CBBEP Bays Plan Actions: **PEO-3**

During the development of the *Coastal Bend Bays Plan*, the CBBEP Management Conference called for the implementation of an innovative and measurable education and outreach strategy. During FY 2000, the CBBEP provided Texas Agricultural Extension Service with funds to develop and implement the Bay Ambassador Program, a diverse outreach program which begins to address the Program's goal of improving public understanding and support for effective management of bay resources.

The purpose of this project is to continue to develop and implement the youth leadership program called Bay Ambassadors. In FY 2000, the program will select 6 to 8 young people ages 16 - 19 and provide them with in-depth training in coastal issues, management strategies, wildlife and fisheries management and other related topics. In FY 2001, this number will increase to 10 to 15 young people and training will continue. The educational process will be on going and will be accomplished through site tours, classroom settings, and hands on learning experiences. This program provides for the continued implementation of activities that will educate area residents about coastal issues, allowing them to make sound environmental decisions, meeting the long term needs of all residents.

Specific Project Objectives:

1. Select and train 10 to 15 Bay Ambassadors.
2. Coordinate a series of education events including site tours, classroom settings, and hands on learning experiences, utilizing personnel from local governmental organizations and universities.
3. Coordinate a series of events utilizing the trained Bay Ambassadors as peer role models instructing other youths, forming a Bays and Estuaries Conservation Corp, serving as spokespersons, and promoting environmental stewardship.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract
Quarterly Progress Reports.....	quarterly
Event Reports.....	as completed
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

Project 0117 Keepers of the Coast

Performing Organization: **Texas State Aquarium**
Total Funding: **\$47,000**
CBBEP Bays Plan Actions: **PEO-3**

One of the greatest challenges facing educators today is providing rural and low-income school districts with the resources to meet the education needs of today's youth. Many rural districts have limited funds for enhanced learning experiences such as outreach visits and field trips. This project will provide additional educational resources for meeting state academic standards. The project will provide educators with opportunities to enhance current classroom teaching strategies through the use of outdoor education facilities in order to stimulate interest and curiosity about the natural world, thereby promoting greater awareness and respect for our natural resources.

The Texas State Aquarium will implement their "*Keepers of the Coast*" program to provide a series of hands-on learning experiences for youth and educators. Schools will be selected from the CBBEP area based on economic need, minority population, and other available statistics. The project will provide a variety of components, including teacher training at in-service or workshops, outreach visits to schools, onsite programs at various local hands-on learning centers, establishment of community projects, family learning events, and development of a teaching guide utilizing classroom activities which focus on the Gulf of Mexico and its coastal habitats. Through the project, the selected groups will gain knowledge and understanding of the linkages between inland and coastal habitats. With this knowledge, the students will be better prepared to encourage sustainable management of local water resources, watersheds, and coastal waters.

Specific Project Objectives:

1. Select the target schools within the CBBEP area.
2. Utilize available education resources to conduct teacher training.
3. Conduct educational outreach visits to schools.
4. Coordinate and implement educational field trips to local facilities.

Project Deliverables/Schedule:

Project Work Plan.....	within 30 days of contract
Quarterly Progress Reports	quarterly
Teaching Guide	5/31/01
Draft Summary Report.....	7/30/01
Final Summary Report.....	8/31/01

Project 0118	Hazel Bazemore Park Public Access Enhancement and Habitat Protection Project
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Performing Organization: Nueces County
Total Funding: \$50,000
CBBEP Bays Plan Actions: HLR-1, BTR-2, BTR-3

The *Coastal Bend Bays Plan* identifies the need for protecting environmental resources, especially wildlife habitat, while providing appropriate public access. One of the goals listed in the *Bays Plan* is to maintain and expand tourism and recreational opportunities in a way that enhances the local economy while protecting the environment.

Hazel Bazemore Park is located on the Nueces River in the upper Nueces River Delta. The park provides a mix of recreational facilities (hiking trails, public fishing, picnic tables, pavilion) while preserving important riparian corridor. In addition to providing habitat for resident species, the park provides roosting habitat for hundreds of thousands of migrating hawks during the fall and spring migrations. The fall hawk migration (more than 1 million hawks) is quickly becoming a major ecotourism event attracting thousands of visitors to observe the migration.

Nueces County will construct an elevated observation platform and educational kiosk to provide better public viewing of the river delta and the hawk migration. The educational kiosk will include information on the ecological importance of the delta area and adjacent riparian corridor. In a separate effort, Nueces County and Hawkwatch International will identify critical roosting sites in the delta for enhanced protection.

Specific Project Objectives:

1. Construct an elevated observation platform for viewing the Nueces River Delta and migrating birds.
2. Construct an educational kiosk that provides information on the ecological importance of the river delta and riparian corridor and the need for protecting wildlife habitat.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Initiate Construction.....	3/15/01
Complete Construction.....	8/31/01
Draft report	7/31/01
Final report	8/31/01

Project 0119 Ropes Park Public Access Enhancement and Expansion Project

Performing Organization: **City of Corpus Christi**
Total Funding: **\$50,000**
CBBEP Bays Plan Actions: **HLR-1, BTR-2, BTR-3**

The *Coastal Bend Bays Plan* identifies the need for appropriate public access to the bay. The lack of readily available public access leads to creation of unofficial access points that usually have a negative impact on shoreline habitats and wetlands. One of the goals in the *Bays Plan* is to expand tourism and recreational opportunities in a way that enhances the local economy while protecting the environment.

The City of Corpus Christi, unlike many waterfront cities, is fortunate to have a string of bayfront parks located on Ocean Drive and Shoreline Boulevard. These parks provide both physical and visual access to the bay.

Ropes Park, a small park located on Ocean Drive, is a popular park that attracts windsurfers, beachcombers, and tourists. In order to accommodate the growing public use of this park, the City of Corpus Christi will acquire an adjacent 1.6 acres of privately owned land and incorporate that area into the park for public use. In addition, the City may install educational signage explaining the ecological value of Corpus Christi Bay.

Specific Project Objectives:

1. Acquisition of approximately 1.6 acres of land for the expansion of Ropes Park
2. Construct educational signage providing the public with information on the ecology of Corpus Christi Bay.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports	quarterly
Close Acquisition	8/31/01
Draft report	7/31/01
Final report	8/31/01

Project 0120	Paradise Pond Habitat Protection and Public Access Enhancement Project
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Performing Organization:	City of Port Aransas
Total Funding:	\$35,000
CBBEP Bays Plan Actions:	HLR-1, BTR-2, BTR-3

The *Coastal Bend Bays Plan* identifies the need for protecting environmental resources, especially wildlife habitat, while providing appropriate public access. One of the goals listed in the *Bays Plan* is to maintain and expand tourism and recreational opportunities in a way that enhances the local economy while protecting the environment.

The City of Port Aransas has recognized the economic benefits of preserving ecologically special areas. Tourism, especially eco-tourism is an important part of the local economy.

Paradise Pond provides important habitat for both migrating neo-tropicals and resident/breeding bird species. One of the few natural freshwater ponds on Mustang Island, the pond and adjacent grasslands are important ecological resources.

The City of Port Aransas will acquire the pond and adjacent area to accommodate growing public use of the area. Enhanced public access will be provided in a manner that satisfies the need for public access while at the same time protecting the natural habitat. Appropriate educational signage will be constructed to provide information on ecological value of the pond and surrounding area.

Specific Project Objectives:

1. Construct public access facilities and install educational signage providing the public with information on the ecology of Paradise Pond.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Install Public Access Facilities and Educational Signage	6/30/01
Draft report	7/31/01
Final report	8/31/01

Project 0121	Mollie Beattie Habitat Protection and Public Access Enhancement Project
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Performing Organization:	Texas A&M University – Corpus Christi, Center for Coastal Studies, and Texas General Land Office
Total Funding:	\$50,000
CBBEP Bays Plan Actions:	HLR-1, BTR-2, BTR-3

The ***Coastal Bend Bays Plan*** identifies the need for protecting environmental resources, especially wildlife habitat, while providing appropriate public access. One of the goals listed in the *Bays Plan* is to maintain and expand tourism and recreational opportunities in a way that enhances the local economy while protecting the environment.

The Mollie Beattie Coastal Habitat Community, on Mustang Island, was established and set aside for its ecological value by the Texas General Land Office, US Fish and Wildlife Service, and Nueces County. Before the site was designated and additional protection implemented the coastal wetlands and marsh habitat were significantly degraded due to uncontrolled vehicle access. While the barriers erected to control vehicle access were successful in protecting the coastal wetlands, they inadvertently unduly restricted public access to the area. The distance from the designated parking area to the popular bay fishing areas, proved to be further than people were willing to walk, especially while carrying their equipment.

This project by Texas A&M University-Corpus Christi Center for Coastal Studies and Texas General Land Office will upgrade an existing caliche road and pad within the area to allow for appropriate public access, construction of an educational kiosk, and delineation of a walking trail along the south end of the site adjacent to Newport Pass. The project sponsors will seek additional funding to provide for additional improvements.

Specific Project Objectives:

1. Upgrade the existing caliche road and pad to accommodate appropriate public use of the site, install barricade to protect coastal wetlands.
2. Construct an educational kiosk and delineate a walking trail (with signage).

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Upgrade Existing Caliche Road & Pad and Install Barricade	4/15/01
Construct Educational Kiosk and Delineate Walking Trail.....	4/15/01
Draft report	7/31/01
Final report	8/31/01

Project 0122	Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project
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Performing Organization: Kleberg County
Total Funding: \$50,000
CBBEP Bays Plan Actions: HLR-1, BTR-2, BTR-3

The *Coastal Bend Bays Plan* identifies the need for protecting environmental resources, especially wildlife habitat, while providing appropriate public access. One of the goals listed in the *Bays Plan* is to maintain and expand tourism and recreational opportunities in a way that enhances the local economy while protecting the environment.

Located on Baffin Bay, the Kaufer-Hubert Memorial Park is a popular area for both residents and visitors. Kleberg County is proposing to initiate a much larger project at the site to address shoreline erosion, public access and habitat (seagrass beds) protection. CBBEP funds will be used for “soft engineering” components (combining estuarine vegetation with structurally engineered components in an integrated system that is more ecologically sustainable, dissipates more wave energy, and is more aesthetically pleasing than traditional coastal engineering structures). CBBEP funds will also be used to develop and install interpretive signs and wildlife viewing areas west of the existing boat ramps.

Specific Project Objectives:

1. Design and construct a “soft engineering” structure to control shoreline and seagrass bed erosion.
2. Design and install interpretive signage and viewing areas.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Design and Construct erosion control structure.....	5/31/01
Design and Install interpretive signage and viewing areas.....	6/30/01
Draft report	7/31/01
Final report	8/31/01

Project 0123	Sarita Wetlands Habitat Enhancement and Public Access Improvement Project
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Performing Organization:	Texas A&M University-Kingsville, Environmental Engineering Dept. and Kenedy Memorial Fdn.
Total Funding:	\$25,000
CBBEP Bays Plan Actions:	HLR-1, BTR-2, BTR-3

The *Coastal Bend Bays Plan* identifies the need for protecting environmental resources, especially wildlife habitat, while providing appropriate public access. One of the goals listed in the *Bays Plan* is to maintain and expand tourism and recreational opportunities in a way that enhances the local economy while protecting the environment.

The number of eco-tourists visiting the town of Sarita is on the rise. Sarita is located in the Nueces- Rio Grande Coastal Drainage Basin near Baffin Bay in Kennedy County. Freshwater wetlands adjacent to the Laguna Madre and Baffin Bay play an important ecological role.

Improved public access is needed in order to minimize impacts on fragile wetlands. This project will construct public access facilities (boardwalks and parking areas) and interpretive signage, and revegetate a portion of the 4-acre wetland to increase species diversity.

Specific Project Objectives:

1. Design and construct parking areas and boardwalks to provide improved access and protection of wetland resources.
2. Design and install interpretive signage.
3. Revegetate a portion of the 4-acre wetland area.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Design and Construct public access facilities.....	5/31/01
Design and Install interpretive signage.....	6/30/01
Revegetate a portion of the wetlands	6/30/01
Draft report	7/31/01
Final report	8/31/01

Project 0124	Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project
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Performing Organization: City of Ingleside
Total Funding: \$50,000
CBBEP Bays Plan Actions: HLR-1

The *Coastal Bend Bays Plan* identifies the need for protecting environmental resources, especially wildlife habitat. One of the goals listed in the *Bays Plan* is to preserve functional, natural habitats of all major types.

Riparian corridors along freshwater drainages have been greatly reduced due to development and land use changes. The need for flood control and drainage has resulted in many natural drainage systems being “improved” to more efficiently move storm off the land. These improvements were often at the expense of wildlife habitat.

Currently efforts are underway to deal with flooding and drainage problems in the Lake Whitney and McCampbell Slough area in Ingleside, Texas. With this assistance from the CBBEP, the City of Ingleside, San Patricio County and San Patricio County Drainage District, will develop and implement a watershed management plan, including non-structural measures to protect and enhance wildlife habitat while improving drainage and flood control. Without the participation of the CBBEP it is likely that the final drainage design would not adequately address wildlife and water quality issues.

The Watershed Management Plan will involve extensive public participation, promote greenbelts and habitat protection, reduce wetland losses and improve stormwater quality. CBBEP funds will be used for the development of the Watershed Management Plan and for preparation of a Guidance Manual for use by local governments in order to assist in developing and evaluating alternative drainage system improvements.

Specific Project Objectives:

1. Develop Watershed Management Plan taking into account habitat preservation and water quality.
2. Acquire (easement or fee simple) wildlife habitat along the drainage system.

Project Deliverables/Schedule:

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Develop Watershed Management Plan.....	2/28/01
Guidance Manual	8/31/01
Draft report	7/31/01
Final report	8/31/01

Task 2.1 Administration

Performing Organization: **CBBEP**
Total Funding: **\$175,539**
CBBEP Bays Plan Actions: **All**

Administrative staff will provide organizational and logistical support for Estuary Council and subcommittee meetings, and coordinate/communicate as necessary with appropriate groups, including stakeholder groups, state and federal agencies, local governments, and professional groups relevant to CCMP implementation. Staff will:

1. acquire, manage, and disperse funds to implement the *Bays Plan*;
2. monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments;
3. undertake the USEPA-required biennial review of the program;
4. develop a prioritized biennial work plan and budget for Estuary Council review and approval;
5. coordinate the periodic update of the *Bays Plan*, the *State of the Bay* report, the *Implementation Strategy*, and other key documents of the program;
6. provide logistical support for all meetings, workshops, symposia, and special events related to program mission;
7. provide for overall program coordination with EPA Region 6 and TNRCC.

Administrative staff will participate in regional, state, and national conferences and meetings relevant to estuarine management. Administrative staff will undertake the design and implementation of other special workshops and the majority of public duties and responsibilities.

Project Deliverables/Schedule:

Program quarterly reportsquarterly
Financial Reportsas available

Task 2.2	Project Management
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Performing Organization:	CBBEP
Total Funding:	\$218,640
CBBEP Bays Plan Actions:	All

This task will provide for continued program implementation, evaluation, and reporting. Project Management staff will coordinate/communicate as necessary with appropriate groups, including stakeholder groups, state and federal agencies, local governments, and professional groups relevant to CCMP implementation. Staff will:

1. develop and implement partnership projects vis-à-vis local governments, state, and federal agencies, and private organizations;
2. monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments;
3. provide communication and coordination with the Texas Coastal Management Program and the Coastal Coordination Council, the Gulf of Mexico Program, the Texas Natural Resource Conservation Commission (TNRCC), and other relevant coastal/watershed programs;
4. coordinate the review of proposed actions of federal, state, and local projects in an open process for consistency with the *Bays Plan*;
5. develop a prioritized biennial work plan and budget for Estuary Council review and approval;
6. provide for overall program coordination, including quality control/quality assurance procedures with EPA Region 6 and TNRCC.

Project Management staff will participate in regional, state, and national conferences and meetings relevant to estuarine management. Project Management staff will undertake the design and implementation of other special workshops and the majority of public duties and responsibilities.

Project Deliverables/Schedule:

Program quarterly reports	quarterly
Financial Reports	as available

Task 2.3 Program Expenses

Performing Organization: **CBBEP**
Total Funding: **\$101,368**
CBBEP Bays Plan Actions: **All**

This task will provide funds to support continued program implementation, evaluation, and reporting. Funds are also necessary to provide logistical support for Estuary Council and subcommittee meetings. Expense categories are as follows:

1. Travel – allows Program staff to attend state, regional and national meetings, workshops, and conferences;
2. Supplies – as needed, for the day-to-day operations of the Program;
3. Equipment – purchase of items over \$1,000, i.e. computers;
4. Other – copier rental, temporary staff, postage, communication services, accounting services, printing, etc.

Program staff will participate in regional, state, and national conferences and meetings relevant to estuarine management. Program staff will undertake the design and implementation of other special workshops and the majority of public duties and responsibilities.

Project Deliverables/Schedule:

Program quarterly reportsquarterly
Financial Reportsas available

Task 2.4	Reserve Local Funds
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Performing Organization:	CBBEP
Total Funding:	\$150,000
CBBEP Bays Plan Actions:	All

The CBBEP Board of Directors has established a reserve fund out of local funding. This task allows for a carry forward of local FY 2000 funds into the FY 2001 fiscal year budget. The funds will be set aside as a reserve for possible future projects, matching funds and/or emergency funding.

VII. Summary

On September 1, 2000, the Coastal Bend Bays & Estuaries Program will begin Year 3 of implementing the *Coastal Bend Bays Plan*. This Cooperative Agreement Work Plan describes the proposed work to be carried out during FY 2001. Work under this Cooperative Agreement is scheduled for completion by August 31, 2001. Of the total funds identified in the Work Plan budget, \$330,000 are new (FY 2001) federal funds, \$837,000 are new (FY 2001) state funds, \$4,221,000 are new (FY 2001) special funds, and \$422,000 are new (FY 2001) local partner funds. The total budget for this FY 2001 Work Plan is \$6,327,547. Detailed budget information can be found in Table 2, which summarizes the overall Work Plan Budget by Program Element, and Table 3, which details funding sources.

TABLE 1: MILESTONE SUMMARY AND SCHEDULE

PERIOD OF PERFORMANCE: September 1, 2000 - August 31, 2001

Task 1.0 CCMP Implementation

SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird Habitat in Nueces and Corpus Christi Bays

Project Work Plan..... within 60 days of committee formation
Quarterly Progress Reports..... quarterly
Complete reef and rookery island enhancement..... 6/30/01
Draft Report..... 7/31/01
Final Report..... 8/31/01

SEP 002 Habitat Acquisition and Protection in San Patricio and Nueces Counties

Project Work Plan..... within 60 days of committee formation
Quarterly Progress Reports..... quarterly
Complete Habitat Acquisition 6/30/01
Draft Summary Report..... 7/31/01
Final Summary Report..... 8/31/01

SEP 0003 Bay Shoreline Erosion Protection and Habitat Enhancement Project

Project Work Plan..... within 30 days of committee formation
Quarterly Progress Reports..... quarterly
Bay Shoreline Enhancement..... 6/30/01
Draft Summary Report..... 7/31/01
Final Summary Report..... 8/31/01

SEP 004 Bayside Shoreline Erosion Protection and Habitat Enhancement Project

Project Work Plan..... within 60 days of committee formation
Quarterly Progress Reports..... quarterly
Complete Habitat Acquisition 6/30/01
Draft Summary Report..... 7/31/01
Final Summary Report..... 8/31/01

#0101 Ecotourism Management and Stewardship Promotion Project

Project Work Plan..... within 60 days of committee formation
Quarterly Progress Reports..... quarterly
Regional Ecotourism Master Strategy 12/31/00
Draft Summary Report..... 7/31/01
Final Summary Report..... 8/31/01

#0102 Bay Debris Removal Demonstration Project – End of Pipe Collection System

Project Work Plan..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Recommend Site and Collection System TBD

Install Collection System	TBD
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0103 Support Development of Local Land Trust

Project Work Plan.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Site Identification and Prioritization	1/31/01
Documentation of Property Acquisition	within 30 days of acquisition
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

#0104 Colonial Waterbird Rookery Island Management within the Coastal Bend

Project Work Plan.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Workshop/Potential Site List	5/31/01
Site Enhancement	TBD
Outreach Materials/Signage	TBD
Site Enhancement	TBD
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

#0105 The Effects of Redhead Ducks on Shoalgrass in the Laguna Madre

Project Work Plan/QAPP.....	within 60 days of contract execution/amendment
Quarterly Progress Reports.....	quarterly
Draft Report	7/31/01
Final Report	8/31/01

#0106 Bay Shrimping in the Coastal Bend – A Summary of Current Conditions

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Draft Report	7/31/01
Final Report	8/31/01

#0107 Animal Rescue and Rehabilitation Programs Project

Project Work Plan/QAPP.....	within 60 days of contract execution/amendment
Quarterly Progress Reports.....	quarterly
Workshop	within 30 days of approved Work Plan
Draft Report	7/31/01
Final Report	8/31/01

#0108 Surface Water Quality Monitoring Project – Upper Laguna Madre and Baffin Bay – Phase III

Project Work Plan/QAPP.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0109 Bay Sediment Monitoring Project

Project Work Plan/QAPP..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report 7/31/01
Final Report..... 8/31/01

#0110 Atmospheric Deposition Study

Project Work Plan/QAPP..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report..... 7/31/01
Final Report..... 8/31/01

#0111 Nonpoint Source Pollution Prevention Assistance Program

Project Work Plan..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Workshop Presentations 6/20/01
Draft Report..... 7/31/01
Final Report..... 8/31/01

#0112 Rehabilitation of Failed OSSF (Septic Tanks) in Priority Areas

Project Work Plan..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report..... 7/31/01
Final Report..... 8/31/01

#0113 Develop and Implement the Public Outreach Strategy

Project Work Plan..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Develop Public Outreach Materials 3/31/01
Implement Public Outreach Plan 5/31/01
Draft Report..... 7/31/01
Final Report..... 8/31/01

#0114 CBBEP Website/Information Clearinghouse

Project Work Plan..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report..... 7/31/01
Final Report..... 8/31/01

#0115 Various Public Education and Outreach Programs

Project Work Plan..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report..... 7/31/01
Final Report..... 8/31/01

#0116 Bay Ambassador Program

Project Work Plan..... within 30 days of contract execution
Quarterly Progress Reports..... quarterly

Event Reports.....	within 30 days of event
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

#0117 Keepers of the Coast Youth Program

Project Work Plan.....	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Teaching Guide	5/31/01
Draft Summary Report.....	7/31/01
Final Summary Report.....	8/31/01

#0118 Hazel Bazemore Park Public Access Enhancement and Habitat Protection Project

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Initiate Construction.....	3/15/01
Complete Construction.....	8/31/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0119 Ropes Park Public Access Enhancement and Expansion Project

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Close Acquisition	8/31/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0120 Paradise Pond Habitat Protection and Public Access Enhancement Project

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Install Public Access Facilities and Educational Signage	6/30/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0121 Mollie Beattie Habitat Protection and Public Access Enhancement Project

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly
Upgrade Existing Caliche Road and Pad and Install Barricade.....	4/15/01
Construct Educational Kiosk and Delineate Walking Trail.....	4/15/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0122 Kaufer-Huebert Memorial Park Habitat Protection and Public Access Enhancement Project

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports.....	quarterly

Design and Construct Erosion Control Structure.....	5/31/01
Design and Install Interpretive Signage and Viewing Areas	6/30/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0123 Sarita Wetlands Habitat Enhancement and Public Access Improvement Project

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports	quarterly
Design and Construct Public Access Facilities	5/31/01
Design and Install Interpretive Signage	6/30/01
Revegetate a Portion of the Wetlands.....	6/30/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

#0124 Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project

Project Work Plan.....	within 60 days of contract execution
Quarterly Progress Reports	quarterly
Develop Watershed Management Plan.....	2/28/01
Guidance Manual	8/31/01
Draft Report.....	7/31/01
Final Report.....	8/31/01

Task 2.0 Program Management

Administrative and Project Management Tasks

Program Quarterly Reports	quarterly
Financial Reports.....	as available

TABLE 2: FY 2001 WORK PLAN BUDGET

	Task 1.0 CCMP Implementation					
Project #	Project Title	USEPA, CWA 320	TNRCC	Local Partners	Special Funding	Total
SEP 001	Enhancement of Hard Substrate Reefs and Colonial Waterbird Habitat in Nueces & Corpus Christi Bays				450,000 (KOCH SEP) 900,000 (TGLO)	\$1,350,000
SEP 002	Habitat Acquisition and Protection in San Patricio and Nueces Counties				1,000,000 (KOCH SEP) 1,000,000 (USFWS) 505,000 (TNC-TX)	2,505,000
SEP 003	Bay Shoreline Erosion Protection and Habitat Enhancement Project				25,000 (KOCH SEP) 75,000 (TGLO)	100,000
SEP 004	Bayside Shoreline Erosion Protection and Habitat Enhancement Project				25,000 (KOCH SEP) 75,000 (TGLO)	100,000
0101	Ecotourism Management and Stewardship Promotion			75,000		75,000
0102	Bay Debris Removal Demonstration Project - End of Pipe Collection System	37,500	12,500			50,000
0103	Support Development of Local Land Trust		50,000	100,000		150,000
0104	Colonial Waterbird Rookery Island Habitat Management				90,000 (EPA-GOMP) 30,000 (USFWS)	120,000
0105	Effects of Redhead Ducks on Shoalgrass in Laguna Madre		50,000			50,000
0106	Bay Shrimping in the Coastal Bend - Current Conditions		50,000			50,000
0107	Improve Animal Rescue and Rehabilitation Programs			50,000		50,000
0108	Surface Water Quality Monitoring Project, Upper Laguna Madre & Baffin Bay - Phase III	75,000	25,000			100,000
0109	Bay Sediment Monitoring Project	56,250	18,750			75,000
0110	Atmospheric Deposition Study	30,000	10,000			40,000
0111	NPS Pollution Prevention Project		75,000			75,000

Project #	Project Title	USEPA, CWA 320	TNRCC	Local Partners	Special Funding	Total
0112	Rehabilitation of Failed OSSF (Septic Tanks) in Priority Areas				46,000 (EPA-GOMP)	46,000
0113	Develop & Implement Public Outreach Strategy (FW Inflows, Seagrass protection, NPS Pollution, Stewardship)	37,500	12,500			50,000
0114	CBBEP Website/Information Clearinghouse	36,000	14,000			50,000
0115	Various Public Education and Outreach Programs	5,250	1,750	40,000		47,000
0116	Bay Ambassador Program	37,500	12,500			50,000
0117	Keepers of the Coast Youth Program		47,000			47,000
0118	Hazel Bazemore Habitat Protection & Public Access Enhancement Project		50,000			50,000
0119	Ropes Park Habitat Protection & Public Access Enhancement Project			50,000		50,000
0120	Paradise Pond Habitat Protection & Public Access Enhancement Project		31,453	3,547		35,000
0121	Mollie Beatty Habitat Protection & Public Access Enhancement Project		50,000			50,000
0122	Kaufer-Hubert Memorial Park Habitat Protection & Public Access Enhancement Project		50,000			50,000
0123	Sarita Habitat Protection & Public Access Enhancement Project		25,000			25,000
0124	Lake Whitney/McCampbell Slough Watershed Habitat Protection & Public Access Enhancement Project		45,000	5,000		50,000
	UNALLOCATED PROJECT FUNDS		100,000	92,000		192,000
SUB-TOTAL		\$315,000	\$730,453	\$415,547	\$4,221,000	\$5,682,000

Task 2.0 FY 2001 Program Management	USEPA, CWA320	TNRCC	Local Partners	Special Funding	TOTAL
Task 2.1 Administration 1 - Executive Director 1 - Contract Manager 1 - Administrative Assistant Fringe (@ .286)		114,000 32,604	22,500 6,435		136,500 39,039
Task 2.2 Project Management 3 – Project Managers 1 – Outreach Coordinator 2*– <i>Project Managers – CWP</i> Fringe (@ .286)		127,274 36,400	42,326 12,640		169,600 49,040
Task 2.3 Program Expenses Travel Supplies Equipment Other	10,000 5,000 (training)	6,316 5,500 0 17,700	3,684 10,181 15,000 27,987		20,000 15,681 15,000 50,687
Task 2.4 Reserve Local Funds			150,000		150,000
SUB-TOTAL	\$15,000	\$339,794	\$290,753		\$645,547
TOTAL (Task 1.0 and Task 2.0)	\$330, 000	\$1,070,247	\$706,300	\$4,221,000	\$6,327,547

* Salaries and Fringe are reflected in Project #0104 (Colonial Waterbird Rookery Island Habitat Management) of Table 2 and are not included in the Program Management table above.

TABLE 3: FY 2001 PROJECTED FUNDING SOURCES

Funding Source	Amount of Funding
USEPA CWA 320 Funds	\$ 330,000
TNRCC FY 2001 Funds	837,000
TNRCC Carry Forward (FY 2000)	133,247
TNRCC Carry Forward (<FY 1999)	100,000
USEPA – GOMP	136,000
Koch Supplemental Environmental Project	1,500,000
US Fish And Wildlife Service – NAWCA	1,000,000
US Fish And Wildlife Service – Corpus Christi	30,000
Texas General Land Office	1,050,000
The Nature Conservancy Of Texas	505,000
City Of Corpus Christi	75,000
Port Of Corpus Christi Authority	75,000
Port Industries Of Corpus Christi	75,000
San Patricio County	30,000
Nueces County	75,000
Aransas County	30,000
Kleberg County	30,000
City Of Aransas Pass	5,000
City Of Portland	5,000
City Of Ingleside	5,000
City Of Port Aransas	5,000
City Of Rockport	5,000
City Of Kingsville	5,000
City Of Bayside	500
City Of Ingleside On The Bay	500
City Of Mathis	500
City Of Riviera	500
Local Partners Project Carry Forward (FY 2000)	284,300
TOTAL	\$6,327,547

TABLE 4: FY 2001 ANNUAL WORK PLAN OUTLINE

PROJECT #	PROJECT TITLE	ACTION ITEM(S)	PERFORMING PARTY
SEP 001	Enhancement of Hard Substrate Reefs and Colonial Waterbird Habitat in Nueces & Corpus Christi Bays	HLR-1, HLR-2, BTR-3	CBBEP & Texas General Land Office
SEP 002	Habitat Acquisition and Protection in San Patricio and Nueces Counties	HLR-1, HLR-2, SM-3	CBBEP & Nature Conservancy of Texas
SEP 003	Bay Shoreline Erosion Protection and Habitat Enhancement Project	HLR-1, HLR-2	CBBEP & Texas General Land Office
SEP 004	Bayside Shoreline Erosion Protection and Habitat Enhancement Project	HLR-1, HLR-2	CBBEP & Texas General Land Office
0101	Ecotourism Management and Stewardship Promotion Project	BTR-1, BTR-3, PEO-5	City of Corpus Christi
0102	Bay Debris Removal Demonstration Project-End of Pipe Collection System	BD-1	City of Corpus Christi
0103	Support Development of Local Land Trust	SM-3, HLR-1, HLR-2	Coastal Bend Land Trust (CBBF)
0104	Colonial Waterbird Rookery Island Habitat Management	HLR-4, HLR-2, BTR-3, PEO-5	CBBEP
0105	The Effects of Redhead Ducks on Shoalgrass in the Laguna Madre	HLR-4, HLR-1, HLR-2	TAMU-Kingsville Caesar Kleberg Wildlife Research Institute, Ducks Unlimited
0106	Bay Shrimping in the Coastal Bend – A Summary of Current Conditions	HLR-4	TAMU-CC Center for Coastal Studies
0107	Animal Rescue and Rehabilitation Programs Project	HLR-5, HLR-4	Texas State Aquarium
0108	Surface Water Quality Monitoring Project, Upper Laguna Madre and Baffin Bay – Phase III	WSQ-1, WSQ-3, WSQ-4, WSQ-5	Nueces River Authority
0109	Bay Sediment Monitoring Project	WSQ-1, WSQ-3, WSQ-4, WSQ-5	TAMU-CC Center for Coastal Studies
0110	Atmospheric Deposition Study	WSQ-3	TAMU-Geochemical and Environmental Research Group
0111	Nonpoint Source Pollution Prevention Assistance Program	NPS-1	TAMU-CC University Outreach
0112	Rehabilitation of Failed OSSF (Septic Tanks) in Priority Areas	NPS-3, PH-1, WSQ-1	Nueces County

PROJECT #	PROJECT TITLE	ACTION ITEM(S)	PERFORMING PARTY
0113	Develop and Implement the Public Outreach Strategy	PEO-1, Others	CBBEP and Partners
0114	CBBEP Website/Information Clearinghouse	All	CBBEP and Contractors
0115	Various Public Education and Outreach Programs	BTR-1, PEO-2, PEO-3, PEO-5	CBBEP
0116	Bay Ambassador Program	PEO-3	Texas Agricultural Extension Service
0117	Keepers of the Coast Youth Program	PEO-3	Texas State Aquarium
0118	Hazel Bazemore Park Public Access Enhancement and Habitat Protection Project	HLR-1, BTR-2, BTR-3	Nueces County
0119	Ropes Park Public Access Enhancement and Expansion Project	HLR-1, NTR-2, BTR-3	City of Corpus Christi
0120	Paradise Pont Habitat Protection and Public Access Enhancement Project	HLR-1, BTR-2, BTR-3	City of Port Aransas
0121	Mollie Beattie Habitat Protection and Public Access Enhancement Project	HLR-1, BTR-2, BTR-3	TAMU-CC Center for Coastal Studies, Texas General Land Office
0122	Kaufer-Hubert Memorial Park Habitat Protection and Public Access Enhancement Project	HLR-2, BTR-2, BTR-3	Kleberg County
0123	Sarita Wetlands Habitat Enhancement and Public Access Improvement Project	HLR-1, BTR-2, BTR-3	TAMU-Kingsville Env. Engineering Dept. & Kenedy Memorial Fdn.
0124	Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project	HLR-1, BTR-2	City of Ingleside

Attachment 4

CBBEP Workplan FY02

Coastal Bend Bays & Estuaries Program



FY 2002 Work Plan

Coastal Bend Bays & Estuaries Program, Inc.

1305 N. Shoreline Blvd., Suite 205
Corpus Christi, TX 78401

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COASTAL BEND BAYS & ESTUARIES PROGRAM

FY 2002 Annual Work Plan

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I. Introduction

In its 1987 reauthorization of the Water Quality Act, the U.S. Congress established the National Estuary Program (NEP) to promote long-term planning and management of nationally significant estuaries threatened by pollution, development, or overuse. The Administrator of the Environmental Protection Agency (EPA) was given authority to convene Management Conferences and to award Federal financial assistance grants to approved state programs for the purpose of developing and implementing a CCMP. The Act defines criteria by which Management Conferees are charged with balancing the conflicting uses in target estuaries, while restoring or maintaining their natural character.

The Coastal Bend Bays & Estuaries Program (formerly the Corpus Christi Bay National Estuary Program) was formally established in October 1992 with committee meetings beginning in late 1993. The CBBEP was one of the first NEPs to use a streamlined approach to the development of a CCMP. The goal of the CBBEP to complete a Preliminary CCMP within 12 to 18 months (from 09/01/94) and a Final CCMP in approximately four years (by September 1998) was achieved.

A State-EPA Management Conference Agreement detailing this and other specific outputs of the four-year program was signed in May 1994 by the Regional Administrator of the EPA and the Chairman of the State-lead agency for the Program, the Texas Natural Resource Conservation Commission (TNRCC). The Program Office has been established since December 1993, as a program of the TNRCC, with a non-profit organization established in 1999 to lead implementation.

The project area encompasses the estuarine environment of 75 miles of the south-central Texas coastline, and includes the 12 counties of the region known as the Coastal Bend. This 514 square mile area of water includes all bays, estuaries, and bayous in the Copano, Aransas, Corpus Christi, Nueces, Baffin, and upper Laguna Madre bay systems, which together represent three of the seven major Texas estuaries.

All data and information produced under the auspices of the CBBEP will adhere to standardized formats and be made publicly accessible. A public participation strategy, refined under the 'public education and outreach' chapter of the *Bays Plan*, will continue to guide public participation efforts in Comprehensive Conservation and Management Plan (CCMP) implementation. The list of Priority Issues, refined through public input and characterization projects will continue to serve as the focus for implementation.

The Priority Issues for the CBBEP are:

- Alteration of Freshwater Inflow into Bays and Estuaries
- Condition of Living Resources
- Loss of Wetlands and Estuarine Habitats
- Degradation of Water Quality
- Altered Estuarine Circulation
- Bay Debris
- Selected Public Health Issues

The *Coastal Bend Bays Plan* has been developed to address each of these priority issues under the following categories of action plans: Human Uses; Maritime Commerce and Dredging;

Habitat and Living Resources; Water and Sediment Quality; Freshwater Resources; and Public Education and Outreach. The projects selected for implementation under this Cooperative Agreement reflect a combination of priority and readiness or feasibility for implementation. Implementing Partners for other actions of the *Bays Plan* will likewise be called upon to begin and continue to implement their own portions of the Plan. The role of Program staff is multi-faceted, but will include at a minimum the following tasks: (1) acquire, manage, and disperse funds to implement the *Bays Plan*; (2) develop and implement partnership projects with local governments, state and federal agencies, and private organizations; (3) monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments; and (4) coordinate the environmental monitoring and assessment of Plan implementation effectiveness.

II. Period of Performance

The period of performance for this FY 2002 Work Plan will be September 1, 2001 through August 31, 2002.

III. Federal and State Program Coordinators and Project Officers

Federal

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IV. Accomplishments To Date

The CBBEP achieved its primary goal for FY 2001, which was to successfully complete transition from CCMP development into implementation. The CBBEP has entered into a number of contractual agreements with the local governments and the State of Texas (TNRCC) for the implementation of the *Bays Plan*. Local funding from the State of Texas and local partners has been secured.

Recently, the CBBEP completed a detailed document as part of EPA's Implementation Review Process, which addressed progress on projects implemented since 1999. In FY 2001 the CBBEP initiated a number of projects. The following brief discussion highlights some of those projects.

Bay Debris Removal Demonstration Project - The CBBEP has contracted with the City of Corpus Christi for a preliminary evaluation and engineering study of mechanical devices that can be retrofitted into the existing stormwater drainage system. The City of Corpus Christi has subcontracted with Texas A&M Kingsville Engineering Department for a portion of the project.

Surface Water Quality Monitoring Project – This phase of the CBBEP's effort to complete a comprehensive water and sediment quality assessment has been initiated. Water samples are being taken on a quarterly basis. This effort is the first major attempt at using "ultra-clean techniques" to assess contaminants in bay waters.

Bay Sediment Chemistry Monitoring Project – This project addresses a significant data gap in our understanding about the health of the bay system. Based on established EPA-EMAP protocols, sediment samples are being collected throughout the project area in order to complete an assessment and create a baseline for future monitoring.

Atmospheric Deposition Study – Earlier efforts to complete a characterization study of total loading to the base system were hampered due to the lack of data on atmospheric deposition. The CBBEP has contracted with Texas A&M GERG to help fill that data gap. After much effort a QAPP has been completed and the installation of monitoring equipment has begun.

Develop and Implement Public Outreach Strategy – The CBBEP has successfully developed a comprehensive outreach strategy involving media, youth education, and participation at public events. Public service announcements (TV) dealing with stormwater runoff and pollution have been prepared in cooperation with the City of Corpus Christi and will soon be running on local stations.

CBBEP Website/Information Clearinghouse – The CBBEP continues to maintain and update a website that provides information about the bays and estuaries of the coastal Bend. Efforts are underway by CBBEP staff to make more information available on the site, such as properly formatted GIS layers, for use by researchers and the public.

Bay Ambassador Program - This project has been an extremely successful youth education and public outreach project. The "Bay Ambassadors" have participated in a number of educational opportunities and public outreach projects such as Bayfest 2000 and Earthday / Bayday 2001.

V. Goals for FY 2002

The CBBEP continues to focus on habitat protection and restoration, and water quality monitoring. This work plan allocates the bulk of the project funds to efforts to protect and restore estuarine wetlands lost to erosion. Halting and reversing the long-term decline of intertidal marsh habitat is critical to the long-term health of the bay system.

Maintaining a long-term water quality monitoring program is an important component of our effort to assess the health of the bay system. Monitoring data allows the CBBEP and other resource managers to identify “problem” areas and focus limited financial and manpower resources. Areas not meeting the water quality standards for their designated use will be monitored more frequently. Sources of pollution will be identified and remediation strategies developed for areas not meeting the standards.

The primary goal for FY 2002 (Year 4 of CCMP Implementation) is to continue the successful initiation and completion of projects developed to implement the *Coastal Bend Bays Plan*. Program staff will continue to seek additional partners to assist with the implementation of the *Bays Plan*.

VI. Implementation of Projects

Project activities for FY 2002 have been selected for their contribution towards implementation of the *Coastal Bend Bays Plan*. They are grouped under the following two elements:

Sixteen projects will be implemented in FY 2002:

- SEP 005 Nueces Delta Habitat Acquisition Project
- #0201 Habitat Restoration & Erosion Protection Project
- #0202 Coastal Bend Regional Water Quality Monitoring Program
- #0203 Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring
- #0204 Ballast Water Nonindigenous Invasive Species Risk Assessment
- #0205 Oso Bay / Oso Creek Wetlands Acquisition
- #0206 Bays Ambassadors Program
- #0207 Keepers of the Coast
- #0208 Walk-Through-the-Wetlands / Adopt-A-Wetland
- #0209 Nueces County Wetlands Creation Project
- #0210 Kingsville Wetlands Creation Project
- #0211 Reef Restoration Plan and Pilot Project
- #0212 Private Lands Riparian Habitat Restoration
- #0213 Colonial Waterbird / Avian Resources Project
- #0214 Animal Rescue and Rehabilitation Program
- #0215 Various Public Outreach and Education Projects

Performing Organization: CBBEP
Total Funding: \$2,000,000
CBBEP Bays Plan Actions: HLR-1, HLR-2, SM-3

Due to its close proximity to a major urban area (Corpus Christi), much of the shoreline and wildlife habitat areas around Nueces Bay have experienced degradation due to land-use conversion and/or human encroachment. Essentially all of the southern and eastern shorelines of Nueces Bay have experienced a significant amount of anthropogenic impact. The northern shoreline of Nueces Bay, in San Patricio County, has experienced a slow but steady increase in residential and commercial development creeping to the west from the City of Portland. Only the Nueces River Delta, located at the west end of Nueces Bay, remains in relatively natural condition.

Long-term protection of the Delta is best accomplished through acquisition, including either outright ownership or the purchase of conservation easements. Once these areas are protected by acquisition, future projects can implement management strategies to restore the value and functionality of the habitat.

The CBBEP is working with the Nature Conservancy of Texas and the Coastal Bend Land Trust on this effort.

Specific Project Objectives:

1. Protection and restoration of wildlife habitat through acquisition and conservation easements.
2. Development of a management strategy for each of the properties acquired.

Project Deliverables/Schedule:

Project Work Plan	within 60 days of committee formation
Quarterly Progress Reports.....	quarterly
Complete Habitat Acquisition	6/30/02
Draft Summary Report	7/31/02
Final Summary Report	8/31/02

Project #0201 Habitat Restoration and Erosion Protection Project

Performing Organization: **Texas General Land Office- CEPRA**
Total Funding: **\$200,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA). The \$200,000 allocated for these projects will result in total project funding of \$1.3 million. The CBBEP has identified the following projects as highest priority and will work with the TGLO to complete as many of the projects as possible. Some of the projects will require the use of FY 2003 project funds.

A. Roddy Island / Aransas National Wildlife Refuge

Roddy Island is in Aransas County, Texas, within the Aransas National Wildlife Refuge (ANWR). Roddy Island is actively used as critical habitat for the endangered whooping crane. The erosion problem at the ANWR is extensive. The USFWS and other organizations are attempting to mitigate this loss of critical habitat. The GIWW has been armored for several miles to protect whooping crane habitat along its banks from further erosion. Roddy Island has suffered severe long-term erosion, but has not received any type of erosion protection. The ANWR, Army Corps of Engineers, Texas General Land Office, and other resource agencies have agreed to a conceptual plan to create wetland habitat seaward of Roddy Island. This habitat would be armored to provide long-term protection to some of the most severely eroded portions of Roddy Island and restore important feeding and loafing habitat.

Project Deliverables/Schedule:

Project Work Plan within 30 days of Project Cooperation Agreement
Quarterly Progress Reports..... quarterly
Draft Summary Report 7/30/02
Final Summary Report 8/31/02

B. Goose Island State Park

Goose Island State Park is comprised of 321.4 acres on the southern tip of Lamar Peninsula and is bounded by Aransas and St. Charles bays. Goose Island has an eroding shoreline of approximately 2 miles on Aransas Bay (southern) side. The unprotected shoreline consists of a shell ridge with smooth cordgrass (*Spartina alterniflora*) marsh. On the mainland (northern) side of the island, high marsh grades into intertidal smooth cordgrass marsh and tidal flats. The open water on the southern side of the island supports shoal grass (*Halodule wrightii*) and scattered oysters. The portion of the bay between Goose Island and the mainland supports expansive living oyster reefs. The seagrasses, cordgrass marshes, and tidal flats provide important feeding habitat for waterfowl, shorebirds, and wading birds, and important nursery areas for commercially and recreationally important finfish and shellfish. A comparison of 1969 and 1995 aerial photography by Texas Parks and Wildlife (TPWD) revealed that 17.1 acres of wetlands and wildlife habitat had eroded from the southern shoreline.

This project would stabilize the eroding shoreline of Goose Island State Park, located 10 miles north of Rockport in Aransas County, Texas by the construction of an offshore breakwater (hard substrate reef). The breakwater would be constructed to avoid impacts to existing seagrasses and oysters. The breakwater would dampen wave action between the breakwater and the

shoreline, creating a lagoon effect that would allow further development of seagrass beds and intertidal emergent marsh along the shoreline. The breakwater would protect the remaining 15 acres of Goose Island and the 75 acres of marsh and oyster reef habitats behind it. Future projects will be developed to restore the lost wetlands and wildlife habitat acreage.

Project Deliverables/Schedule:

Project Work Plan within 30 days of Project Cooperation Agreement
 Quarterly Progress Reports..... quarterly
 Draft Summary Report 7/30/02
 Final Summary Report 8/31/02

C. Sunfish Island

Sunfish Island, a colonial waterbird rookery, is located at the northeast section of the breakwater designed to protect the Corpus Christi Municipal Marina, Nueces County, Texas. Sunfish Island is approximately 0.4 hectare with a maximum elevation of one meter. The surface is primarily shell hash and is sparsely vegetated. This provides sanctuary for many species of coastal birds and sea life. During the 2000 spring/summer nesting seasons, the island supported more than 1,000 pair of nesting water birds (egrets, herons, & gulls).

Sunfish Island has suffered from erosion caused by high energy wave action. The erosion has practically split the small island in half. This project would restore the island habitat and protect it from further erosion.

Project Deliverables/Schedule:

Project Work Plan within 30 days of Project Cooperation Agreement
 Quarterly Progress Reports..... quarterly
 Draft Summary Report 7/30/02
 Final Summary Report 8/31/02

D. Indian Point & Sunset Lake Recreation Area

The Indian Point & Sunset Lake Recreational Area and the associated protected wetlands are the largest acquisition of high quality wetlands by a local government in this area. The area is a high quality saltwater system with coastal wetland marsh and sandflat habitat. Numerous migratory and protected bird species nest, roost and feed within the lake, along the shoreline, and within the wetlands. Shoreline erosion currently threatens the existence of salt marshes along the southern fringe of Indian Point, the southeastern portion of Sunset Lake Recreation Area.

This project would stabilize the eroding shoreline of Indian Point & Sunset Lake by the construction of a hard substrate reef to act as an offshore breakwater. The offshore reef would be constructed to avoid impacts to existing sensitive habitats and would dampen wave action between the breakwater and the shoreline, thus creating a lagoon effect that would protect the inter-tidal emergent marsh and shell ridge that currently serves numerous shore birds and other marsh dependent species.

Project Deliverables/Schedule:

Project Work Plan within 30 days of Project Cooperation Agreement
 Quarterly Progress Reports..... quarterly
 Draft Summary Report 7/30/02
 Final Summary Report 8/31/02

E. Rural Bays Shoreline Marsh Restoration and Erosion Protection

This is a continuation of our current project that is using smooth cord grass (*Spartina alterniflora*) to create an energy buffer along eroding bay shorelines in Nueces, Aransas and Copano Bays. The vegetation replaces lost marsh habitat while providing erosion protection. Other erosion control techniques may be employed. The Natural Resource Conservation Service (NRCS) provides technical support and direct project management assistance.

Project Deliverables/Schedule:

Project Work Plan within 30 days of Project Cooperation Agreement
Quarterly Progress Reports..... quarterly
Draft Summary Report 7/30/02
Final Summary Report 8/31/02

F. Port Aransas Habitat Protection and Erosion Control Project

Erosion is taking land along the main ship channel where Port Aransas plans to develop a low impact recreational park. This erosion has started to eat into the wetlands at Charlie's Pasture. There is also a significant erosion problem at Harbor Island. This project will stabilize the eroding shoreline and reduce the loss of emergent marsh habitat. As part of this project, the City of Port Aransas will also be acquiring property in Charlie's Pasture in order to provide protection for wetlands and wildlife habitat. This project, and a planned future phase II project, will provide protection for these important wetlands.

Project Deliverables/Schedule:

Project Work Plan within 30 days of Project Cooperation Agreement
Quarterly Progress Reports..... quarterly
Draft Summary Report 7/30/02
Final Summary Report 8/31/02

Project #0202 Coastal Bend Regional Water Quality Monitoring Program

Performing Organization: Center for Coastal Studies, Texas A&M University-Corpus Christi
Total Funding: \$155,000
CBBEP Bays Plan Actions: WSQ-1, WSQ-3, WSQ-4, WSQ-5

From 1999-2001, CBBEP conducted a comprehensive water quality monitoring project throughout the program area. That comprehensive effort helped to fill in many of the data gaps concerning water quality. The next phase of the CBBEP's water quality monitoring and assessment effort is the establishment of a routine, baseline monitoring program that provides resource managers with an ongoing assessment of water quality and addresses special areas of concern. A basic water quality monitoring program maintained by the CBBEP allows other agencies and organizations to expand the effort with either additional parameters or monitoring events. On a five-year cycle, the CBBEP will prepare a summary report on the status and trends of water quality and other key indicators of the health of the bay system.

A. Regional EMAP Based Water Quality Monitoring

The CBBEP is committed to implementing a regional water quality monitoring program that will provide the basic information needed to assess the health of the estuary. A regional water quality program allows the CBBEP and communities within the program area, to interact with local, state, and federal entities on the larger goal of protecting and preserving the entire Gulf Coast environment.

The EPA Office of Research and Development's Environmental Monitoring and Assessment Program (EMAP) probability based sampling design allows for the determination of current status, extent, changes, and trends in the water quality and ecological community of the CBBEP project area with a scientifically sound monitoring plan. An EMAP sampling program is also designed to determine the condition of resources, to provide information to aid in evaluation of environmental policies, and to help identify emerging environmental concerns before they become widespread problems.

Deliverables/Schedule:

Project QAPP	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Draft Report	7/30/02
Final Report	8/31/02

B. Dissolved Oxygen Monitoring – Upper Laguna Madre/Baffin Bay System and the Oso Bay/Oso Creek System

The upper Laguna Madre/Baffin Bay and Oso Creek/Oso Bay systems are on the 303(d) list for low dissolved oxygen and bacteria. This component of the water quality monitoring project will collect dissolved oxygen data over a 24 hour period on a seasonal basis. This information will be helpful to determine if the previously observed low dissolved oxygen levels are a response to natural conditions, perhaps justifying the development of site specific standards, or is indicative of anthropogenic impacts.

Deliverables/Schedule:

Project QAPP..... within 30 days of Project Cooperation Agreement
Quarterly Progress Reports..... quarterly
Draft Summary Report7/30/02
Final Summary Report8/31/02

C. Monitor Bacteria Levels at Priority Areas

Previous monitoring projects at a limited number of sites have documented the relationship between rainfall and elevated bacteria levels in bay waters. This effort will expand to include smaller communities located on the bay and rural areas. Monitoring will be during dry weather and wet weather conditions.

Deliverables/Schedule:

Project QAPP.....within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report7/30/02
Final Report8/31/02

Project #0203 Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring

Performing Organization: **Center for Coastal Studies, Texas A&M University-Corpus Christi**
Total Funding: **\$20,000**
CBBEP Bays Plan Actions: **FW-1, FW-2, WSQ-1, WSQ-3, WSQ-4**

Nearly all marine fishes have an early life history involving a planktonic phase. Variability in numbers of larvae surviving through the dispersal and settlement phase can be the ultimate determinate in adult population sizes, creating a great potential for enormous variation from season to season. The net seaward movement of estuarine waters, combined with tidal flux, causes problems for species utilizing the estuary; generally related to either export from or recruitment to the estuary. Numerous estuarine-dependent species (those utilizing the estuary as a nursery ground for the early portion of their life cycle) spawn well offshore and their eggs and larvae must be transported into coastal and estuarine nursery grounds against the net seaward flow. These species (including several commercially important ones) typically have extended larval periods which are subjected to the widest degree of physical processes, which can ultimately affect recruitment.

Along the lower Texas coast, the Corpus Christi/Nueces Bay system is an example of an estuarine nursery ground separated from the major riverine input. The shallow estuarine habitats that serve as nursery grounds, including emergent marsh, submerged aquatic vegetation, and intertidal flats, are isolated from the discharge point of the Nueces River. Processes other than salinity driven stratified current flow mediate the physical transport of eggs and larvae to nursery habitats within Nueces Bay. Despite being disconnected from the river flow, Nueces delta is considered an important nursery ground for many commercially important finfish and shellfish.

Alternative efforts to maximize freshwater inflow to the Delta, such as the Rincon Bayou channel and pipeline, are being pursued. To determine the ecological benefits and in order to provide assurances that "no harm" is caused by utilizing these efforts, water quality, biological, and ecological response data must be collected and analyzed. This ichthyoplankton project will attempt to determine the type and extent of effects the altered flows may have on fish populations and community structure.

The overall ichthyoplankton monitoring project is being implemented by Texas Parks and Wildlife. CBBEP funding will provide support for student workers to assist with field sampling and laboratory analysis. Texas Parks and Wildlife will provide a copy of the results of their monitoring project to the CBBEP.

Specific Project Objectives:

1. Provide student assistance to support water quality and biological monitoring in Nueces Bay.
2. Determine the extent of larval fish recruitment to the Nueces delta.
3. Document the ichthyoplankton distribution of commercially important, estuarine-dependent finfish.
4. Assess the spatial and temporal distribution of larval and post-larval fish within Nueces Bay.

5. Determine if the discharge of the Nueces River away from the delta region acts as a 'recruitment barrier' for transport and recruitment of fishes into the Nueces delta.

Project Deliverables/Schedule:

Project QAPP	within 30 days of contract execution
Quarterly Progress Reports.....	quarterly
Draft Report	7/30/02
Final Report	8/31/02

**Project #0204 Ballast Water / Nonindigenous Invasive Species Risk
Assessment**

Performing Organization: **Center for Coastal Studies, Texas A&M
University-Corpus Christi**
Total Funding: **\$25,000**
CBBEP Bays Plan Actions: **MC-8**

The principal objective of this project is to preliminarily assess the risk of introduction of non-indigenous invasive species from ship ballast water from deep draft ships using the Port of Corpus Christi. The focus of this proposal is on aquatic nuisance species (ANS).

Because the need to understand the risk of introduction of ANS to the area by the deep draft ships, the Port of Corpus Christi Authority (POCCA) has initiated the first phase of a project, to compile data concerning deep draft ships utilizing the port system. The project will be conducted in a phased approach to allow for assessment of progress and redirection of tasks (if necessary) to attain the overall goal of this project.

This phase of the project (Second Phase) will take the information that the POCCA has compiled, review it for consistency, then search, review and compile relevant biological, climatological and water quality information characteristic of the various ports of call visited by the deep draft ships prior to using the port system. The data will then be organized in a format that will facilitate accessibility, which will aid in the identification of the species that will ultimately be selected for the risk assessment.

Specific Project Objectives:

1. Collection, compilation and reporting of water quality, chemistry and related ecological information based on an initial screening of trade region, partner or port identification and volume of cargo.

Project Deliverables/Schedule:

Project Work Plan within 30 days of committee formation
Quarterly Progress Reports..... quarterly
Draft Summary Report 7/30/02
Final Summary Report 8/31/02

Project #0205 Oso Bay / Oso Creek Wetlands Acquisition

Performing Organization: City of Corpus Christi
Total Funding: \$125,000
CBBEP Bays Plan Actions: SM-2, SM-3, HLR-1, HLR-2

The purpose of this project is to acquire property/conservation easements along Oso Bay; to preserve habitat, maintain open space; and ensure watershed and water quality protection.

CBBEP funds will be used by the City of Corpus Christi as a 20% match for a State Transportation Enhancement Program (STEP) grant. STEP funds will be used to purchase property along Oso Bay/Oso Creek for the purpose of preserving habitat. The City of Corpus Christi will work in coordination with the Coastal Bend Land Trust to identify land in the Oso Bay/Oso Creek area that could be acquired for the purpose of conservation and habitat protection and to identify land/easements to be acquired for the purpose of constructing a hike and bike trail along Oso Bay/Oso Creek. Acquisition of property or easements along Oso Bay/Oso Creek for the hike and bike trail will provide the public with improved waterfront access and will provide a buffer strip between Oso Bay/Oso Creek and residential/commercial development.

Specific Project Objectives:

1. Develop a list of properties in the Oso Bay/Oso Creek corridor that would be desirable for habitat protection and to provide a riparian buffer strip suitable for a hike and bike trail.
2. Acquire property and conservation easements.

Project Deliverables/Schedule:

Quarterly Progress Reports..... quarterly
Documentation of Property Acquisitionwithin 30 days of acquisition
Draft Summary Report 7/31/03
Final Summary Report8/31/03

Project #0206 Bay Ambassadors Program

Performing Organization: Texas Agricultural Extension Service
Total Funding: \$50,000
CBBEP Bays Plan Actions: PEO-3

During the development of the *Coastal Bend Bays Plan*, the CBBEP Management Conference called for the implementation of an innovative education and outreach strategy. During FY 2001, the CBBEP provided Texas Agricultural Extension Service with funds to develop and implement the Bay Ambassador Program, a diverse outreach program which addresses the Program's goal of improving public understanding and support for effective management of bay resources.

The purpose of this project is to continue to develop and implement the youth leadership program called Bay Ambassadors. In FY 2001, the program selected 6 to 8 young people ages 16 - 19 and provided them with in-depth training in coastal issues, management strategies, wildlife and fisheries management and other related topics. In FY 2002, this number will increase to 10 to 15 young people, and training will continue. The educational process will be on going and will be accomplished through site tours, classroom settings, and hands on learning experiences. The Bay Ambassadors will develop and present educational programs on bays and estuaries to civic clubs, service organizations, garden clubs and others. Program topics will cover the importance of bays and estuaries to the Coastal Bend economy. They will also serve as spokespersons for the Coastal Bend Bays & Estuaries Program at Bayfest, Corpus Christi Farm Show, participating County Livestock Shows, and other major regional events.

Specific Project Objectives:

1. Select and train 10 to 15 Bay Ambassadors.
2. Coordinate a series of education events including site tours, classroom settings, and hands on learning experiences, utilizing personnel from local governmental organizations and universities.
3. Coordinate a series of events utilizing the trained Bay Ambassadors as peer role models instructing other youths, forming a Bays and Estuaries Conservation Corp, serving as spokespersons, and promoting environmental stewardship.

Project Deliverables/Schedule:

Quarterly Progress Reports..... quarterly
Event Reportsas completed
Draft Summary Report7/31/03
Final Summary Report8/31/03

Project #0207 Keepers of the Coast

Performing Organization: Texas State Aquarium
Total Funding: \$50,000
CBBEP Bays Plan Actions: PEO-3

One of the greatest challenges facing educators today is providing rural and low-income school districts with the resources to meet the education needs of today's youth. Many rural districts have limited funds for enhanced learning experiences such as outreach visits and field trips. During FY 2001, the CBBEP provided additional educational resources for helping educators meet state academic standards. This project will provide approximately 8 schools, 56 educators, and 1120 students with opportunities to enhance current classroom teaching strategies through the use of outdoor education facilities in order to stimulate interest and curiosity about the natural world, thereby promoting greater awareness and respect for our natural resources.

The Texas State Aquarium will continue to implement their "*Keepers of the Coast*" program which provides a series of hands-on learning experiences for youth and educators. Schools will be selected from the CBBEP area based on economic need, minority population, and other available statistics. The project will provide a variety of components, including teacher training at in-service or workshops, outreach visits to schools, onsite programs at various local hands-on learning centers, establishment of community projects, family learning events, and development of a teaching guide utilizing classroom activities which focus on the Gulf of Mexico and its coastal habitats. Through the project, the selected groups will gain knowledge and understanding of the linkages between inland and coastal habitats. With this knowledge, the students will be better prepared to encourage sustainable management of local water resources, watersheds, and coastal waters.

Specific Project Objectives:

1. Select the target schools within the CBBEP area.
2. Utilize available education resources to conduct teacher training.
3. Conduct educational outreach visits to schools.
4. Coordinate and implement educational field trips to local facilities.

Project Deliverables/Schedule:

Quarterly Progress Reports.....	quarterly
Teaching Guide.....	5/31/01
Draft Summary Report	7/30/03
Final Summary Report	8/31/03

Project #0208 Walk-Through-the-Wetlands / Adopt-A-Wetland

Performing Organization: Texas A&M University-Corpus Christi,
Center for Coastal Studies, Adopt-A-
Wetland Program

Total Funding: \$25,000

CBBEP Bays Plan Actions: BTR-1, PEO-2, PEO-3, PEO-5

One of the most important goals of the Coastal Bend Bays & Estuaries Program's Bays Plan is to educate citizens about the ecology of the bay system and its many environmental and economic values. Walk Through The Wetlands is an interactive wetland display designed to interest and educate people about coastal wetlands. The display was first used at Bayfest 2000, where over 1000 visitors enjoyed the exhibit and learned about the values wetlands provide to people and animals.

The exhibit is a 30' x 30' x 24" constructed wetland consisting of a wooden frame with a waterproof PVC liner and over 400 wetlands plants which can be transported and setup on site. Interpretive stations representing various interesting aspects of wetlands are set up along a pathway designed to guide visitors completely through the wetland. Trained volunteer interpreters are available at the learning stations to share with visitors some of their knowledge of the various aspects of wetlands. Accessibility allows people of all ages and abilities to explore and learn about the plants and animals that inhabit wetlands.

The Adopt-A-Wetland Program is a wetland conservation education program supported through a cooperative partnership between the Texas A&M University-Corpus Christi Center for Coastal Studies, U.S. Fish and Wildlife Service, and Texas Parks and Wildlife Department, that emphasizes teaching youth about the ecological and economic importance of wetlands.

Project Objectives:

1. Assist other Walk-Through-the-Wetlands partners with maintenance of the display.
2. Design an effective educational display including a variety of learning stations.
3. Develop a schedule of events at which the display will be used.
4. Organize and oversee transportation, setup/break-down, and operation of display at scheduled events.

Project Deliverables/Schedule:

Quarterly Progress Reports..... quarterly

Event Reportswithin 30 days of event

Draft Summary Report07/31/03

Final Summary Report08/31/03

Project #0209 Nueces County Wetlands Creation Project

Performing Organization: Nueces County
Total Funding: \$50,000
CBBEP Bays Plan Actions: BTR-2, HLR-2

In order to alleviate flooding problems in the north Robstown area, and to improve public access to natural areas, Nueces County proposes to construct wetlands for storm-water retention at the Robstown County Park.

Riparian corridors along freshwater drainages in the north Robstown area have been greatly reduced due to residential and agricultural development. The elimination of these critically important storm water retention areas in this flat terrain has resulted in frequent and severe flooding in the north Robstown area. Flood control projects, designed only to alleviate flooding problems, often result in the construction of channelized ditches, which quickly remove water, but also result in degraded water quality and the destruction of wildlife habitat.

Nueces County proposes an innovative blend of public service, environmental protection and enhancement, and improved recreational resources through the creation of a series of storm-water retention ponds at the Robstown County Park. This constructed wetland will improve water quality by retaining and filtering storm water runoff from adjacent agricultural fields. The ponds will also provide an excellent opportunity for public viewing of wildlife, other recreational benefits such as fishing, educational benefits via signage and learning opportunities, and ecological enhancement through the planting of native vegetation.

Specific Project Objectives:

1. Develop a plan to construct a storm-water retention wetland at Robstown North Park with public access and environmental education components.
2. Excavate the wetland to the required elevations.
3. Establish native vegetation.
4. Construct educational signage, kiosk, and boardwalk.

Project Deliverables/Schedule:

Quarterly Progress Reports.....	quarterly
Develop Plan	11/31/02
Begin Construction.....	12/31/02
Complete Construction.....	8/31/03
Draft report	7/31/03
Final report	8/31/03

Project #0210 Kingsville Wetlands Creation Project

Performing Organization: **Texas A&M University-Kingsville**
Total Funding: **\$50,000**
CBBEP Bays Plan Actions: **HLR-2**

Kingsville's South Wastewater Treatment Plant (SWWTP, plant #2) discharges approximately 0.5 MGD into the Santa Gertrudis Creek, which eventually makes its way to the Cayo del Grullo (part of Baffin Bay). At its outfall, a berm and other hydrologic changes were made by the City of Kingsville and the late Tom Tacha (Texas A&I professor), effectively creating the wetland ("Outfall Wetland") that exists today. The site is listed on the Great Texas Coastal Birding Trail by TPWD and has been managed by the Kleberg County Parks and Recreation Dept. Unfortunately, the wildlife viewing stand has deteriorated and the main berm has undergone some significant erosion. Both are in need of repair. TAMUK will work with both the City and County to repair the berm and enhance the wildlife viewing facilities.

The City of Kingsville's Dept. of Public Utilities is also strongly interested in improving their knowledge on treatment wetlands. To learn more about how to integrate them into the treatment system and understand how to operate them, the City wants to convert about one acre of a basin that exists on their SWWTP into a "Pilot Wetland". The Outfall Wetland receives the discharge from the SWWTP. If the City is comfortable with the performance results of the wetland, then they will integrate a treatment wetland into their plant expansion plans for the SWWTP.

Texas A&M University—Kingsville will partner with the City of Kingsville and the County of Kleberg to increase the quality and quantity of wetland habitat in the Cayo del Grullo drainage basin and enhance the public's ability to enjoy such wetland habitat in the Coastal Bend region. This project will enhance the habitat and facilities of an existing wetland and create another.

Specific Project Objectives:

1. Restore degraded berm and wetland habitat.
2. Plant a variety of native wetland vegetation.
3. Rebuild wildlife viewing facilities and install educational signage.

Project Deliverables/Schedule:

Project Work Plan within 30 days of Project Cooperation Agreement
Quarterly Progress Reports..... quarterly
Draft Summary Report 7/30/02
Final Summary Report 8/31/02

Project #0211 Reef Restoration Plan and Pilot Project

Performing Organization: TAMU-CC / SeaGrant
Total Funding: \$22,500
CBBEP Bays Plan Actions: HLR-2

Artificial reefs designed to enhance recreational and commercial fishing in both inland and coastal waters have been used throughout the world for centuries. In the U.S., early artificial reef efforts were carried out along the eastern seaboard in the early 1900's, primarily by sportsmen's clubs who utilized tethered logs, concrete filled tubs as well as materials of opportunity to construct benthic reefs.

TPWD has been involved in artificial reef placement in fresh and salt waters in the state since the late 1940's. In all, TPWD has been involved in the construction of more than thirty artificial reefs. On the other hand, the Department estimates that by comparison there are over 2000 de facto artificial reefs in the form of jetties, piers, docks, and petroleum platforms, the vast majority being located in inland waters and coastal bays. The Texas Artificial Reef Fishery Management Plan states the area benefiting least from decades of de facto artificial reef development has been the offshore saltwater zone. It was the needs of this area that the Texas Artificial Reef Act of 1989 sought to address. Therefore, the Texas Artificial Reef Plan focused on artificial reef development in the Gulf of Mexico off Texas. Recent conversations with TPWD personnel led to the conclusion that TPWD currently does not have a policy on artificial reef development in Texas bays and estuaries as detailed as the one that exists for the offshore program.

Since the Texas artificial reef legislation specifically mentioned reef development in Texas coastal waters, the primary objective of this project is to provide background information to assist the Department in 1) deciding if an artificial reef policy is needed for coastal bays, and 2) provide background information to assist them in establishing such a policy and to establish a test reef in the CBBEP project area.

Specific Project Objectives:

1. Compile a comprehensive summary of recent bay and estuarine artificial reef activities in SE US and Gulf of Mexico states.
2. Coordinate all activities with Texas Parks and Wildlife Department.
3. Create a reef design and select suitable location within the CBBEP geographic area which meet all Artificial Reef Plan requirements.
4. Create and deploy/install test reef structure.

Project Deliverables/Schedule:

Project Work Plan	within 30 days of committee formation
Quarterly Progress Reports.....	quarterly
Design Artificial Reef Structure	3/30/02
Install Artificial Reef Structure	7/30/02
Draft Summary Report	7/30/02
Final Summary Report	8/31/02

Project #0212 Private Lands Riparian Habitat Restoration

Performing Organization: **De-Go-La Resource Conservation and Development Project, Inc.**
Total Funding: **\$46,000**
CBBEP Bays Plan Actions: **HLR-2**

The *Bays Plan* calls for efforts to identify habitat types that are most at risk and to work with landowners and local and state governments to preserve sufficient, functional acreage of those habitats. Riparian habitats (plant communities adjacent to lake, rivers, streams, and drainage ways) provide many essential functions including habitat, control of non-point source pollution, and flood and erosion control. Destruction, degradation, and fragmentation within the CBBEP region has been documented by various CBBEP studies. Factors contributing to the loss include conversion to other uses such as agriculture.

This project will assist the U.S. Department of Agriculture's Continuous Conservation Reserve Program (CCRP) in restoration of approximately 100 acres of riparian habitat where agricultural activities have resulted in the removal or significant alteration of vegetation and habitat. The CCRP provides landowners with a monetary incentive to convert cropland to native vegetative cover. CBBEP funds will be used to develop and implement habitat restoration plans and assess the success of those efforts. Restoration of the riparian habitat in these areas will provide benefits by reducing non-point source pollution, restoring erosion and flood function, and providing habitat for aquatic and terrestrial organisms.

Specific Project Objectives:

1. Select degraded riparian sites to be restored and contact landowners to discuss need and incentives available for restoration through the USDA Continuous Conservation Reserve Program.
2. Obtain agreements with landowners and pay incentives (USDA CCRP funds).
3. Establish native vegetation on the selected sites (CBBEP funds).
4. Assess the selected sites to determine restoration success.

Project Deliverables/Schedule:

Quarterly Progress Reports.....	quarterly
Select Potential Restoration Sites	9/31/01
Land Owner Agreements	11/31/01
Evaluation of Established Vegetation	5/31/02
Draft Report	7/31/02
Final Report	8/31/02
Draft Assessment Report	5/31/03
Final Assessment Report	7/31/03

Project #0213 Colonial Waterbird / Avian Resources Project

Performing Organization: **CBBEP**
Total Funding: **\$120,000**
CBBEP Bays Plan Actions: **HLR-4, HLR-2, D-1, BTR-3, PEO-5**

The Living Resources Characterization Report prepared for the Estuary Program documented the declining populations of certain colonial waterbird populations. Colonial waterbird populations are indicators of the overall health of the estuary. Birding, especially viewing colonial waterbirds, is an important and growing component of ecotourism and the local economy.

Building on the efforts of the CBBEP in FY 2001, this project will see the completion of the CBBEP Colonial Waterbird Rookery Island Management Plan and continued implementation of specific management actions. Management actions will include human-disturbance avoidance, nesting substrate supplementation, vegetation management to enhance rookery island habitat, and predator control where necessary. Outreach will continue to be a crucial component in achieving project objectives.

Specific Project Objectives:

1. Conduct a workshop to solicit comments and evaluating and strengthening the management plan.
2. Complete the Coastal Bend Colonial Waterbird Management Plan.
3. Review and prioritize a list for potential rookery island creation or restoration and demonstration projects using beneficial dredge material.
4. Continue efforts on enhancement and construction of nesting habitat.
5. Continue to promote public programs to protect colonial waterbirds.
6. Develop new outreach materials and signage to reduce impacts of human disturbance on waterbird colonies.

Project Deliverables/Schedule:

Project Work Plan	9/30/2001
Quarterly Progress Reports.....	quarterly
Site Enhancement.....	TBD
Signage for Rookery Islands	11/30/2001
Draft Summary Report	7/30/2002
Final Report	8/31/2002

Project #0214 Animal Rescue and Rehabilitation Programs

Performing Organization:	Various Organizations
Total Funding:	\$50,000
CBBEP Bays Plan Actions:	HLR-4, HLR-5

Animal rescue and rehabilitation programs provide important information on species of concern and increase public awareness about our ecosystem. Each year thousands of protected, threatened, or endangered species become stranded, ill, or injured along the Texas coast. Services provided by existing programs include stranding response, evaluation, temporary refuge for exhausted migrant animals, acute and comprehensive medical care, release of rehabilitated animals, and long-term care for permanently disabled non-releasable animals. These animals are invaluable tools for education and for encouraging public environmental stewardship. Rescued animals remind the public of how closely we are tied to our environment, and of how our actions ultimately affect the health of our coastal waters and the animals that depend on them.

As a result of previous CBBEP funding, the Coalition of Animal Rescue and Rehabilitation (CARR) was formed as the coordinated communications network of professionals and volunteers involved with animal rescue and rehabilitation. CARR helped to develop a management plan identifying the priority needs of animal rescue and rehabilitation programs. An annual CARR workshop will be held to implement and fund the priority items established in the management plan.

Specific Project Objectives:

1. Conduct workshop to refine communication and aid in training of professionals and volunteers involved with animal rescue and rehabilitation.
2. Provide opportunity for CARR to discuss permit and communication needs with regulatory agencies.
3. Implement the priority items established in the animal rescue and rehabilitation management plan.

Project Deliverables/Schedule:

Project Work Plan	within 30 days of contract execution
Workshop	within 30 days of approved work plan
Quarterly Progress Reports.....	quarterly
Draft Report	7/30/02
Final Report	8/31/02

Project #0215 Various Public Outreach and Education Projects

Performing Organization:	CBBEP
Total Funding:	Community Events and Festivals
\$12,000	CBBEP Newsletter “Around the Bend”
\$10,000	Coastal Bend Wildlife Photo Contest
\$10,000	National Ocean Science Bowl
\$ 5,000	Public Outreach Through Media
\$ 4,500	Other Outreach Opportunities
<u>\$10,000</u>	
\$51,500	

CBBEP Bays Plan Actions: **BTR-1, PEO-2, PEO-3, PEO-5**

The goal of these public education and outreach projects is to provide the public with the environmental science knowledge to make sound decisions regarding the effective management of bay resources and to promote environmental stewardship through increasing awareness of the resources and the issues regarding their use.

Project Objectives:

- * **Community Events and Festivals** – CBBEP’s presence at community events plays an important role to draw the public’s attention to bay resources and environmental protection. Community events may include: Bayfest, Earth Day/Bay Day, Aransas Pass Shrimporee, Rockport Seafair, Fulton Oysterfest and other area events. In addition, the CBBEP will sponsor an interactive wetland display to be used for educational purposes at these community events.
- * **CBBEP Newsletter “Around the Bend”** - The newsletter serves as an important outreach tool and helps to keep Estuary Council members and the general public informed about local environmental issues and activities of the CBBEP.
- * **Coastal Bend Wildlife Photo Contest** – This wildlife education program awards prize money for photos taken of wildlife around the area. The purpose of the contest is to save, create and maintain wildlife habitats through partnerships with private landowners. The winners split prize money with landowners from a 10-county area.
- * **National Ocean Science Bowl** - This event provides the opportunity to increase knowledge of the aquatic environment on the part of students, their teachers and parents, as well as to raise public awareness of ocean-related concerns.
- * **Public Outreach Through Media** – Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities. Program staff will utilize local and regional media (newspapers, television and radio stations, etc.) to implement the goals of the CBBEP Public Outreach Strategy.

Project Deliverables/Schedule:

Project Work Planwithin 30 days of contract
Quarterly Progress Reports..... quarterly
Event Reportswithin 30 days of event
Final Summary Reports8/31/02

VII. Program Administration

CBBEP administrative staff (3.5 FTE's) will provide organizational and logistical support for Estuary Council and subcommittee meetings, and coordinate/communicate as necessary with appropriate groups, including stakeholder groups, state and federal agencies, local governments, and professional groups relevant to CCMP implementation. Staff will:

1. Acquire, manage, and disperse funds to implement the *Bays Plan*;
2. Monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments;
3. Develop a prioritized biennial work plan and budget for Estuary Council review and approval;
4. Coordinate the periodic update of the *Bays Plan*, the *State of the Bay* report, the *Implementation Strategy*, and other key documents of the program;
5. Provide logistical support for all meetings, workshops, symposia, and special events related to program mission;
6. Provide for overall program coordination with EPA Region 6 and TNRCC.
7. Participate in regional, state, and national conferences and meetings relevant to estuarine management.

VIII. Project Management

CBBEP Project Management staff (6.5 FTE's) will coordinate/communicate as necessary with appropriate groups, including stakeholder groups, state and federal agencies, local governments, and professional groups relevant to CCMP implementation. Staff will:

1. Develop and implement partnership projects with local governments, state, and federal agencies, and private organizations;
2. Monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments;
3. Provide communication and coordination with the Texas Coastal Management Program and the Coastal Coordination Council, the Gulf of Mexico Program, the Texas Natural Resource Conservation Commission (TNRCC), and other relevant coastal/watershed programs;
4. Coordinate the review of proposed actions of federal, state, and local projects in an open process for consistency with the *Bays Plan*;
5. Develop a prioritized biennial work plan and budget for Estuary Council review and approval;
6. Provide for overall program coordination, including quality control/quality assurance procedures with EPA Region 6 and TNRCC.
7. Participate in regional, state, and national conferences and meetings relevant to estuarine management.

IX. Program Expenses

CBBEP funds will be used to fund expenses to support continued program implementation, evaluation, and reporting. Funds are also necessary to provide logistical support for Estuary Council and subcommittee meetings. Expense categories are as follows:

1. Travel – allows Program staff to attend state, regional and national meetings, workshops, and conferences;
2. Supplies – as needed, for the day-to-day operations of the Program;
3. Equipment – purchase of items over \$1,000, i.e. computers;

4. Other – copier rental, temporary staff, postage, communication services, accounting services, printing, etc.

X. Reserve Local Funds

The CBBEP Board of Directors has established a reserve fund out of local funding. The funds will be set aside as a reserve for possible future projects, matching funds and/or emergency funding.

XI. Summary

On September 1, 2001, the Coastal Bend Bays & Estuaries Program will begin Year 4 of implementing the *Coastal Bend Bays Plan*. This FY 2002 Work Plan describes the proposed work to be carried out during FY 2002. Work under this Cooperative Agreement is scheduled for completion by August 31, 2002. Of the total funds identified in the Work Plan budget, \$340,000 are new (FY 2002) federal funds, \$849,777 are new (FY 2002) state funds, \$2,193,500 are new (FY 2002) special funds, and \$330,000 are new (FY 2002) local partner funds. The total budget for this FY 2002 Work Plan is \$3,713,277. Detailed budget information can be found in Table 4, which summarizes the overall budget, and Table 3, which details projected funding sources.

TABLE 1: MILESTONE SUMMARY AND SCHEDULE

PERIOD OF PERFORMANCE: September 1, 2001 - August 31, 2002

Task 1.0 CCMP Implementation

SEP 005 Nueces Delta Habitat Acquisition Project

Project Work Plan within 60 days of committee formation
Quarterly Progress Reports..... quarterly
Complete Habitat Acquisition 6/30/02
Draft Summary Report 7/31/02
Final Summary Report 8/31/02

#0201 Habitat Restoration and Erosion Protection Project

Project Work Plan within 30 days of Project Cooperation Agreement
Quarterly Progress Reports..... quarterly
Draft Summary Report 7/30/02
Final Summary Report 8/31/02

#0202 Coastal Bend Regional Water Quality Monitoring Program

Project QAPP within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report 7/30/02
Final Report 8/31/02

#0203 Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring

Project QAPP within 30 days of contract execution
Quarterly Progress Reports..... quarterly
Draft Report 7/30/02
Final Report 8/31/02

#0204 Ballast Water / Nonindigenous Invasive Species Risk Assessment

Project Work Plan within 30 days of committee formation
Quarterly Progress Reports..... quarterly
Draft Summary Report 7/30/02
Final Summary Report 8/31/02

#0205 Oso Bay / Oso Creek Wetlands Acquisition

Quarterly Progress Reports..... quarterly
Documentation of Property Acquisition within 30 days of acquisition
Draft Summary Report 7/31/03
Final Summary Report 8/31/03

#0206 Bay Ambassadors Program

Quarterly Progress Reports..... quarterly
Event Reports as completed
Draft Summary Report 7/31/03
Final Summary Report 8/31/03

#0207 Keepers of the Coast

Quarterly Progress Reports.....	quarterly
Teaching Guide.....	5/31/01
Draft Summary Report	7/30/03
Final Summary Report	8/31/03

#0208 Walk-Through-the-Wetlands / Adopt-A-Wetland

Quarterly Progress Reports.....	quarterly
Event Reports	within 30 days of event
Draft Summary Report	07/31/03
Final Summary Report	08/31/03

#0209 Nueces County Wetlands Creation Project

Quarterly Progress Reports.....	quarterly
Develop Plan	11/31/02
Begin Construction.....	12/31/02
Complete Construction.....	8/31/03
Draft report	7/31/03
Final report	8/31/03

0210 Kingsville Wetlands Creation Project

Project Work Plan	within 30 days of Project Cooperation Agreement
Quarterly Progress Reports.....	quarterly
Draft Summary Report	7/30/02
Final Summary Report	8/31/02

#0211 Reef Restoration Plan and Pilot Project

Project Work Plan	within 30 days of committee formation
Quarterly Progress Reports.....	quarterly
Design Artificial Reef Structure	3/30/02
Install Artificial Reef Structure	7/30/02
Draft Summary Report	7/30/02
Final Summary Report	8/31/02

#2012 Private Lands Riparian Habitat Restoration

Quarterly Progress Reports.....	quarterly
Select Potential Restoration Sites	9/31/01
Land Owner Agreements	11/31/01
Evaluation of Established Vegetation	5/31/02
Draft Report	7/31/02
Final Report	8/31/02
Draft Assessment Report	5/31/03
Final Assessment Report	7/31/03

#0213 Colonial Waterbird / Avian Resources Project

Project Work Plan	9/30/2001
Quarterly Progress Reports.....	quarterly
Site Enhancement.....	TBD
Signage for Rookery Islands	11/30/2001
Draft Summary Report	7/30/2002
Final Report	8/31/2002

#0214 Animal Rescue and Rehabilitation Program

Project Work Planwithin 30 days of contract execution
Workshopwithin 30 days of approved work plan
Quarterly Progress Reports..... quarterly
Draft Report7/30/02
Final Report8/31/02

#0215 Various Public Outreach and Education Projects

Project Work Planwithin 30 days of contract
Quarterly Progress Reports..... quarterly
Event Reportswithin 30 days of event
Final Summary Reports8/31/02

TABLE 2: FY 2002 ANNUAL WORK PLAN OUTLINE

PROJECT #	PROJECT TITLE	ACTION ITEM(S)	PERFORMING PARTY
SEP 005	Nueces Delta Habitat Acquisition Project	HLR-1, HLR-2, SM-3	CBBEP
0201	Habitat Restoration and Erosion Protection Project	HLR-1, HLR-2	Texas General Land Office - CEPRA
0202	Coastal Bend Regional Water Quality Monitoring Program	WSQ-1, WSQ-3, WSQ-4, WSQ-5	Center for Coastal Studies
0203	Assist Nueces Delta Freshwater Inflow Ichthyoplankton Monitoring	WSQ-1, WSQ-3, WSQ-4, WSQ-5	Center for Coastal Studies
0204	Ballast Water / Nonindigenous Invasive Species Risk Assessment	MC-8	Center for Coastal Studies
0205	Oso Bay / Oso Creek Wetlands Acquisition	SM-2, SM-3, HLR-1, HLR-2	City of Corpus Christi
0206	Bay Ambassadors Program	PEO-3	Texas Agricultural Extension Service
0207	Keepers of the Coast	PEO-3	Texas State Aquarium
0208	Walk-Through-the-Wetlands / Adopt-a-Wetland	BTR-1, PEO-2, PEO-3, PEO-5	TAMU-CC Adopt—Wetland Program
0209	Nueces County Wetlands Creation Project	BTR-2, HLR-2	Nueces County
0210	Kingsville Wetlands Creation Project	HLR-2	Texas A&M University-Kingsville
0211	Reef Restoration Plan and Pilot Project	HLR-2	TAMU-CC and SeaGrant
0212	Private Lands Riparian Habitat Restoration	HLR-2	De-Go-La Resource Conservation and Development Project, Inc.
0213	Colonial Waterbird / Avian Resources Project	HLR-4, HLR-2, BTR-3, PEO-5	CBBEP
0214	Animal Rescue and Rehabilitation Programs	HLR-4, HLR-5	Various Organizations
0215	Various Public Outreach and Education Projects	BTR-1, PEO-2, PEO-3, PEO-5	CBBEP

TABLE 3: FY 2002 PROJECTED FUNDING SOURCES

Funding Source	Amount of Funding
USEPA CWA 320 Funds	\$ 340,000
TNRCC FY 2002 Funds	849,777
USEPA - GOMP	110,000
USEPA – Region 6	15,000
US Fish & Wildlife Service	68,500
EPA/TNRCC SEP II	2,000,000
City of Corpus Christi	75,000
Port of Corpus Christi Authority	75,000
Port Industries of Corpus Christi	75,000
San Patricio County	30,000
Nueces County	75,000
TOTAL	\$3,713,277

TABLE 4: CBBEP FY 2002 BUDGET

Implementation Projects

CONTRACTED PROJECTS	LOCAL	TNRCC FY '02	USEPA CWA 320	USEPA GOMP	USEPA Reg VI	USFWS	EPA/TNRCC SEP II	TOTAL
SEP 005 Nueces Delta Habitat Acquisition Project							2,000,000	2,000,000
0201 Habitat Restoration & Erosion Protection			200,000					200,000
0202 Coastal Bend Regional Water Quality Monitoring Program		45,000	110,000					155,000
0203 Assist Nueces Delta Freshwater Inflow Ich. Monitoring			20,000					20,000
0204 Ballast Water Nonindigenous Invasive Species Risk Assess				25,000				25,000
0205 Oso Bay/Oso Creek Wetlands Acquisition	125,000							125,000
0206 Bay Ambassadors Program		50,000						50,000
0207 Keepers of the Coast		50,000						50,000
0208 Walk-Through-the-Wetlands / Adopt-A-Wetland		10,000			15,000			25,000
0209 Nueces County Wetlands Creation Project		50,000						50,000
0210 Kingsville Wetlands Creation Project		50,000						50,000
0211 Reef Restoration Plan and Pilot Project						22,500		22,500
0212 Private Lands Riparian Habitat Restoration						46,000		46,000
CONTRACT TOTAL	125,000	255,000	330,000	25,000	15,000	68,500	2,000,000	2,818,500

IN-HOUSE PROJECTS

0213 Colonial Waterbird/Avian Resources Project		35,000		85,000				120,000
0214 Animal Rescue & Rehabilitation Programs	50,000							50,000
0215 Various Public Outreach and Education Projects	19,000	32,500						51,500
IN-HOUSE TOTAL	69,000	67,500		85,000				221,500

CONTRACT AND IN-HOUSE TOTAL	194,000	322,500	330,000	110,000	15,000	68,500	2,000,000	3,040,000
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Program Management	Local Partners	TNRCC FY '02	USEPA, CWA320	Special Funding	TOTAL
Program Administration 1 - Executive Director 1 - Contract Manager 1 - Administrative Assistant 1 – Business Manager Fringe (@ .286)	27,000 13,100	149,900 47,266			176,900 60,366
Project Management 3 – Project Managers 1 – Communications Manager 2*– <i>Project Managers – CWP</i> Fringe (@ .286)		191,000 65,322			191,000 65,322
Program Expenses Travel Supplies Equipment Other	23,900 5,500 5,000 11,500	1,500 13,500 0 58,789	10,000		35,400 19,000 5,000 70,289
Reserve Local Funds	50,000				50,000
SUB-TOTAL	\$136,000	\$527,277	\$10,000		\$673,277
TOTAL	\$330,000	\$849,777	\$340, 000	\$2,193,500	\$3,713,277

* Salaries and Fringe are reflected in Project #0213 (Colonial Waterbird / Avian Resources Project) of Table 2 and are not included in the Program Management table above.

Attachment 5

CBBEP Workplan FY03

Coastal Bend Bays & Estuaries Program



FY 2003 Comprehensive Annual Work Plan

Coastal Bend Bays & Estuaries Program, Inc.
1305 N. Shoreline Blvd., Suite 205
Corpus Christi, TX 78401

www.cbbep.org

COASTAL BEND BAYS & ESTUARIES PROGRAM

FY 2003 Comprehensive Annual Work Plan

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I. Introduction

In its 1987 reauthorization of the Water Quality Act, the U.S. Congress established the National Estuary Program (NEP) to promote long-term planning and management of nationally significant estuaries threatened by pollution, development, or overuse. The Administrator of the Environmental Protection Agency (EPA) was given authority to convene Management Conferences and to award Federal financial assistance grants to approved state programs for the purpose of developing and implementing a CCMP. The Act defines criteria by which Management Conferees are charged with balancing the conflicting uses in target estuaries, while restoring or maintaining their natural character.

The Coastal Bend Bays & Estuaries Program (formerly the Corpus Christi Bay National Estuary Program) was formally established in October 1992 with committee meetings beginning in late 1993. The CBBEP was one of the first NEPs to use a streamlined approach to the development of a CCMP. The goal of the CBBEP to complete a Preliminary CCMP within 12 to 18 months (from 09/01/94) and a Final CCMP in approximately four years (by September 1998) was achieved.

A State-EPA Management Conference Agreement detailing this and other specific outputs of the four-year program was signed in May 1994 by the Regional Administrator of the EPA and the Chairman of the State-lead agency for the Program, the Texas Natural Resource Conservation Commission (TNRCC). The Program Office has been established since December 1993, as a program of the TNRCC, with a non-profit organization established in 1999 to lead implementation.

The project area encompasses the estuarine environment of 75 miles of the south-central Texas coastline, and includes the 12 counties of the region known as the Coastal Bend. This 514 square mile area of water includes all bays, estuaries, and bayous in the Copano, Aransas, Corpus Christi, Nueces, Baffin, and upper Laguna Madre bay systems, which together represent three of the seven major Texas estuaries.

All data and information produced under the auspices of the CBBEP will adhere to standardized formats and be made publicly accessible. A public participation strategy, refined under the 'public education and outreach' chapter of the *Bays Plan*, will continue to guide public participation efforts in Comprehensive Conservation and Management Plan (CCMP) implementation. The list of Priority Issues, refined through public input and characterization projects will continue to serve as the focus for implementation.

The Priority Issues for the CBBEP are:

- Alteration of Freshwater Inflow into Bays and Estuaries
- Condition of Living Resources
- Loss of Wetlands and Estuarine Habitats
- Degradation of Water Quality
- Altered Estuarine Circulation
- Bay Debris
- Selected Public Health Issues

The *Coastal Bend Bays Plan* has been developed to address each of these priority issues under the following categories of action plans: Human Uses; Maritime Commerce and Dredging;

Habitat and Living Resources; Water and Sediment Quality; Freshwater Resources; and Public Education and Outreach. The projects selected for implementation reflect a combination of priority and readiness or feasibility for implementation. Implementing Partners for other actions of the *Bays Plan* will likewise be called upon to begin and continue to implement their own portions of the Plan. The role of Program staff is multi-faceted, but will include at a minimum the following tasks: (1) acquire, manage, and disperse funds to implement the *Bays Plan*; (2) develop and implement partnership projects with local governments, state and federal agencies, and private organizations; (3) monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments; and (4) coordinate the environmental monitoring and assessment of Plan implementation effectiveness.

II. Starting Date

The starting date for this FY 2003 Comprehensive Work Plan will be September 1, 2002.

III. Federal and State Program Coordinators and Project Officers

Federal

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IV. Accomplishments To Date

The CBBEP achieved its primary goal for FY 2002, which was to continue the successful initiation and completion of projects developed to implement the *Coastal Bend Bays Plan*. The Program and its partners achieved programmatic progress on 94 percent of CCMP actions.

Action-specific environmental progress directly attributed to CBBEP activities is estimated at over 9,000 acres of restored or protected habitat. The Program's success in leveraging funds for CBBEP projects has also been noteworthy. Through matching and in-kind contributions, the Program identified over \$9 million in total resources, a nine-fold increase of EPA's 320 base funding. Broad support for the Program's activities is evidenced by the range of contributors, including local governments, industries, NGOs and state and federal agencies. The CBBEP Estuary Council has not made any changes in the priorities as listed in the CCMP.

All project deliverables identified during the FY 1999 implementation year have been completed. FY 2000 and 2001 projects are expected to be complete by May 31, 2003. The Estuary Council committees continue to identify, initiate and select project ideas for inclusion in the Program work plans.

In FY 2002 the CBBEP initiated a number of projects funded by various state, federal and local support. The following brief discussion highlights several of these projects.

Coastal Bend Regional Water Quality Monitoring Program – This phase of the CBBEP's water quality monitoring and assessment effort establishes a routine, baseline monitoring program that provides resource managers with an ongoing assessment of water quality and addresses special areas of concern.

Bay Ambassador Program - This project has been an extremely successful youth education and public outreach project contracted with the Texas Agricultural Extension Service. The "Bay Ambassadors" have participated in a number of educational opportunities and public outreach projects such as Bayfest 2001 and Earthday / Bayday 2002.

Keepers of the Coast – This project continues to provide a series of 'hands-on' learning experiences for youth and educators through the Texas State Aquarium. Targeting rural school districts with limited funding has provided enhanced learning experiences such as outreach visits and field trips, family learning events, and classroom activities utilizing the teaching guide which focuses on the Gulf of Mexico and its coastal habitats.

Various Public Outreach and Education Projects – An ambitious public outreach strategy has been undertaken. The Program has produced three "Keep It Clean" public service announcements with the City of Corpus Christi. Fact sheets on specific CBBEP projects have been developed. The CBBEP web site was totally redesigned and is now a highly interactive site. A new brochure has been produced. Planned media events were held with project partners: Nueces Bay Habitat Restoration with the Texas General Land Office; Mollie Beatty Park with various partners; and Pollywog Pond with various partners. There was TV news coverage on the brown pelicans potential delisting, Sunfish Island restoration, and the crab trap removal project. Outreach activities include 2002 Boat Show where CBBEP distributed 700 Bay Users Guides; crab trap removal main event at Conn Brown Harbor in Aransas Pass; and the Coastal Issues Conference.

Colonial Waterbird / Avian Resources Project – The CBBEP has successfully completed the CBBEP Colonial Waterbird Rookery Island Management Plan and continues implementation of specific management actions. Monitoring regiments have been performed for the Nueces Bay Island Restoration Project with an increase in population of Black Skimmers and Gull-billed Terns. Snowy plover surveys were performed to determine breeding status. Least Tern nesting sites have shown success at two Port of Corpus Christi sites for the third year.

V. Goals for FY 2003

The primary goal for FY 2003 is to continue the successful initiation and completion of projects developed to implement the *Coastal Bend Bays Plan*.

The CBBEP continues to focus on habitat protection and restoration, assisting the recovery of species of concern, and public education and outreach. This work plan allocates funds for efforts to protect and restore estuarine wetlands lost to erosion. Halting and reversing the long-term decline of intertidal marsh habitat and associated uplands is critical to the long-term health of the bay system.

Public Education and Outreach remains an important component of the *Bays Plan*. The Advisory Committees of CBBEP have shown great interest in focusing on public outreach through the media, with emphasis on the priority issues as described in the *Bays Plan*.

The Rookery Island Strategic Master Plan has been developed by CBBEP staff, and focuses on maintaining healthy populations of colonial waterbirds with specific emphasis on those species showing a significant population decline. CBBEP has two avian biologists on staff who will continue to implement the Master Plan.

Maintaining a long-term water quality monitoring program is an important component of our effort to assess the health of the bay system. Monitoring data allows the CBBEP and other resource managers to identify “problem” areas and focus limited financial and manpower resources. Areas not meeting the water quality standards for their designated use will be monitored more frequently. Sources of pollution will be identified and remediation strategies developed for areas not meeting the standards.

Program staff will continue to seek additional partners to assist with the implementation of the *Bays Plan*.

VI. Implementation of Projects

Project activities for FY 2003 have been selected for their contribution towards implementation of the *Coastal Bend Bays Plan*. Twenty-seven projects will be implemented in FY 2003. A comprehensive list of projects outlining project numbers, titles, action items, performing party(s), and budget can be found in Table 1: FY 2003 Comprehensive Annual Work Plan Outline.

VII. Project Deliverables/Schedule

Specific project deliverables and schedules for completion are to be negotiated with the sub-contractor of the project and will be included in the scope of work of the project contract. The project contract and any amendments will be subject to review by funding entities and are incorporated into this annual work plan by reference.

Project #0301A Continuation of Whooping Crane Habitat Restoration & Erosion Protection

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$30,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

Roddy Island is in Aransas County, Texas, within the Aransas National Wildlife Refuge (ANWR). Roddy Island is actively used as critical habitat for the endangered whooping crane. The erosion problem at the ANWR is extensive. The USFWS and other organizations are attempting to mitigate this loss of critical habitat. The GIWW has been armored for several miles to protect whooping crane habitat along its banks from further erosion. Roddy Island has suffered severe long-term erosion, but has not received any type of erosion protection. The ANWR, Army Corps of Engineers, Texas General Land Office, and other resource agencies have agreed to a conceptual plan to create wetland habitat seaward of Roddy Island. This habitat would be armored to provide long-term protection to some of the most severely eroded portions of Roddy Island and restore important feeding and loafing habitat.

Project #0301B Continuation of Goose Island State Park Habitat Restoration & Erosion Protection

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$60,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

Goose Island State Park is comprised of 321.4 acres on the southern tip of Lamar Peninsula and is bounded by Aransas and St. Charles bays. Goose Island has an eroding shoreline of approximately 2 miles on Aransas Bay (southern) side. The unprotected shoreline consists of a shell ridge with smooth cordgrass (*Spartina alterniflora*) marsh occurring along portions of it. On the mainland (northern) side of the island, high marsh grades into intertidal smooth cordgrass marsh and tidal flats. The open water on the southern side of the island supports shoal grass (*Halodule wrightii*) and scattered oysters. The portion of the bay between Goose Island and the mainland supports expansive living oyster reefs. The seagrasses, cordgrass marshes, and tidal flats provide important feeding habitat for waterfowl, shorebirds, and wading birds, and important nursery areas for commercially and recreationally important finfish and shellfish. A comparison of 1969 and 1995 aerial photography by Texas Parks and Wildlife (TPWD) revealed that 17.1 acres of wetlands and wildlife habitat had eroded from the southern shoreline

This project would stabilize the eroding shoreline of Goose Island State Park, located 10 miles north of Rockport in Aransas County, Texas by the construction of an offshore breakwater (hard substrate reef). The breakwater would be constructed to avoid impacts to existing seagrasses and oysters. The breakwater would dampen wave action between the breakwater and the shoreline, creating a lagoon effect that would allow further development of seagrass beds and intertidal emergent marsh along the shoreline. The breakwater would protect the remaining 15 acres of Goose Island and the 75 acres of marsh and oyster reef habitats behind it. Future projects will be developed to restore the lost wetlands and wildlife habitat acreage.

Project #0301C Continuation of Sunfish Island Habitat Restoration & Erosion Protection

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$75,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

Sunfish Island, a colonial waterbird rookery, is located at the northeast section of the breakwater designed to protect the Corpus Christi Municipal Marina, Nueces County, Texas. Sunfish Island is approximately 0.4 hectare with a maximum elevation of one meter. The surface is primarily shell hash and is sparsely vegetated. This provides sanctuary for many species of coastal birds and sea life. During the 2000 spring/summer nesting seasons, the island supported more than 1,000 pair of nesting water birds (egrets, herons, & gulls).

Sunfish Island has suffered from erosion caused by high energy wave action. The erosion has practically split the small island in half. This project would restore the island habitat and protect it from further erosion.

Project #0301D Continuation Indian Point Habitat Restoration & Erosion Protection

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$60,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

The Indian Point & Sunset Lake Recreational Area and the associated protected wetlands are the largest acquisition of high quality wetlands by a local government in this area. The area is a high quality saltwater system with coastal wetland marsh and sandflat habitat. Numerous migratory and protected bird species nest, roost and feed within the lake, along the shoreline, and within the wetlands. Shoreline erosion currently threatens the existence of salt marshes along the southern fringe of the Indian Point, the southeastern portion of Sunset Lake Recreation Area.

This project would stabilize the eroding shoreline of Indian Point & Sunset Lake by the construction of a hard substrate reef to act as an offshore breakwater. The offshore reef would be constructed to avoid impacts to existing sensitive habitats and would dampen wave action between the breakwater and the shoreline thus creating a lagoon effect that would protect the intertidal emergent marsh and shell ridge that currently serves numerous shore birds and other marsh dependent species.

Project #0301E1 Continuation of Bayside Shoreline Restoration & Erosion Protection

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$15,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

This is a continuation of our current project that is using smooth cord grass (*Spartina alterniflora*) to create an energy buffer along eroding bay shorelines in Nueces, Aransas and Copano Bays. The vegetation replaces lost marsh habitat while providing erosion protection. Other erosion control techniques may be employed. The Natural Resource Conservation Service (NRCS) provides technical support and direct project management assistance.

Project #0301E2 Continuation of Mission Bay Habitat Enhancement & Erosion Protection

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$15,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

This is a continuation of our current project that is using smooth cord grass (*Spartina alterniflora*) to create an energy buffer along eroding bay shorelines in Nueces, Aransas and Copano Bays. The vegetation replaces lost marsh habitat while providing erosion protection. Other erosion control techniques may be employed. The Natural Resource Conservation Service (NRCS) provides technical support and direct project management assistance.

Project #0301E3 Continuation of Ingleside Habitat Enhancement & Erosion Protection

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$15,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

This is a continuation of our current project that is using smooth cord grass (*Spartina alterniflora*) to create an energy buffer along eroding bay shorelines in Nueces, Aransas and Copano Bays. The vegetation replaces lost marsh habitat while providing erosion protection. Other erosion control techniques may be employed. The Natural Resource Conservation Service (NRCS) provides technical support and direct project management assistance.

Project #0301F Continuation of Port Aransas Habitat Protection & Erosion Control

Performing Organization: **Texas General Land Office- CEPRA**
Section 320 Funding: **\$30,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

This habitat restoration and protection project will leverage available state funds (TGLO-CEPRA) up to a 15:85 ratio.

Erosion is taking land along the main ship channel where Port Aransas plans to develop a low impact nature preserve recreational park. This erosion has started to eat into the wetlands at Charlie's Pasture. There is also a significant erosion problem at Harbor Island. This project will stabilize the eroding shoreline and reduce the loss of emergent marsh habitat. As part of this project, the City of Port Aransas will also be acquiring property in Charlie's Pasture in order to provide protection for wetlands and wildlife habitat. This project, and a planned future phase II project, will provide protection for these important wetlands.

Project #0302 Colonial Waterbird Rookery Island Management

Performing Organization: **CBBEP**
Section 320 Funding: **\$125,000**
CBBEP Bays Plan Actions: **HLR-4, HLR-2, D-1, BTR-3, PEO-5**

The Living Resources Characterization Report prepared for the Estuary Program documented the declining populations of certain colonial waterbird populations. Colonial waterbird populations are indicators of the overall health of the estuary. Birding, especially viewing colonial waterbirds, is an important and growing component of ecotourism and the local economy.

Building on the efforts of the CBBEP in FY 2001 & 2002, this project will continue the implementation of specific management actions of the CBBEP Colonial Waterbird Rookery Island Management Plan. Management actions will include human-disturbance avoidance, nesting substrate supplementation, vegetation management to enhance rookery island habitat, and predator control where necessary. Outreach will continue to be a crucial component in achieving project objectives.

Project Objectives:

1. Continue efforts on enhancement and construction of nesting habitat.
2. Continue to promote public programs to protect colonial waterbirds.
3. Monitoring of Colonial Waterbird populations.
4. Develop new outreach materials and signage to reduce impacts of human disturbance on waterbird colonies.

Project #0303 Public Education & Outreach Media Campaign

Performing Organization: **CBBEP**
Section 320 Funding: **\$50,000**
CBBEP Bays Plan Actions: **BTR-1, PEO-2, PEO-3, PEO-5**

Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities. The CBBEP will utilize local, and regional, which includes television, radio, print, and websites, to implement the goals of the CBBEP Public Outreach Strategy.

The priority issues for this public outreach as identified in the *Coastal Bend Bays Plan* are:

- Altered Freshwater Inflow Into Bays and Estuaries
- Non-point Source Pollution
- Loss of Wetlands and Estuarine Habitats
- Degradation of Water Quality
- Condition of Living Resources
- Altered Estuarine Circulation
- Public Health Issues

The priority issues have been the topics of discussion and focus of the many committees that developed the *Coastal Bend Bays Plan* which includes the Scientific/Technical Advisory Committee, Citizens Advisory Committee, Bays Council and the CBBEP Board of Directors. All of the committees expressed great interest in the Altered Freshwater Inflows and the Non Point Source Pollution issues.

Some or all of the priority issues listed above will be considered for the Public Outreach through media.

Project #0304 Walk-Through-the-Wetlands / Adopt-A-Wetland

Performing Organization: Texas A&M University-Corpus Christi, Center for Coastal Studies, Adopt-A-Wetland Program
Corpus Christi Botanical Gardens

Section 320 Funding: \$25,000

CBBEP Bays Plan Actions: BTR-1, PEO-2, PEO-3, PEO-5

One of the most important goals of the Coastal Bend Bays & Estuaries Program's *Bays Plan* is to educate citizens about the ecology of the bay system and its many environmental and economic values. Walk-Through-The-Wetlands is an interactive wetland display designed to interest and educate people about coastal wetlands. The display was first used at Bayfest 2000, where over 1000 visitors enjoyed the exhibit and learned about the values wetlands provide to people and animals.

The exhibit is a 30' x 30' x 24" constructed wetland consisting of a wooden frame with a waterproof PVC liner and over 400 wetlands plants which can be transported and setup on site. Interpretive stations representing various interesting aspects of wetlands are set up along a pathway designed to guide visitors completely through the wetland. Trained volunteer interpreters are available at the learning stations to share with visitors some of their knowledge of the various aspects of wetlands. Accessibility allows people of all ages and abilities to explore and learn about the plants and animals that inhabit wetlands.

Project Objectives:

1. Assist other Walk-Through-the-Wetlands partners with maintenance of the display.
2. Develop a schedule of events at which the display will be used.
3. Organize and oversee transportation, setup/break-down, and operation of display at scheduled events.

Project #0305 Nueces Delta Habitat Acquisition Project

Performing Organization: **CBBEP**
Total Funding: **\$5,150,000**
CBBEP Bays Plan Actions: **AM-2, HLR-1, HLR-2**

Due to its close proximity to a major urban area (Corpus Christi), much of the shoreline and wildlife habitat areas around Nueces Bay have experienced degradation due to land-use conversion and/or human encroachment. Essentially all of the southern and eastern shorelines of Nueces Bay have experienced a significant amount of anthropogenic impact. The northern shoreline of Nueces Bay, in San Patricio County, has experienced a slow but steady increase in residential and commercial development creeping to the west from the City of Portland. Only the Nueces River Delta, located at the west end of Nueces Bay, remains in relatively natural condition.

Long-term protection of the Delta is best accomplished through acquisition, including either outright ownership or the purchase of conservation easements. Once these areas are protected by acquisition, future projects can implement management strategies to restore the value and functionality of the habitat.

The CBBEP is working with the Nature Conservancy of Texas and the Coastal Bend Land Trust on this effort.

Project Objectives:

1. Protection and restoration of wildlife habitat through acquisition and conservation easements.
2. Development of a management strategy for each of the properties acquired.

Project #0306 Oso Bay / Oso Creek Habitat Acquisition Project

Performing Organization: **City of Corpus Christi & Coastal Bend Land Trust**
Total Funding: **\$75,500**
CBBEP Bays Plan Actions: **SM-2, HLR-1, HLR-2**

The purpose of this project is to acquire property and/or conservation easements along the Oso Creek area, to preserve habitat, maintain open space, and ensure watershed and water quality protection. CBBEP funds will be used by the City of Corpus Christi as a 20% match for a State Transportation Enhancement Program (STEP) grant. The grant, from the Texas Dept. of Transportation, is to continue design and construction of the Bay Trail hike and bike trail along a portion of the west shoreline of Oso Bay/Oso Creek.

CBBEP funds will be used to purchase property and conservation easements along Oso Bay/Oso Creek for siting of the hike and bike trail. The hike and bike trail will provide a riparian buffer strip between the Oso Creek/Oso Bay system and residential/commercial development. The buffer strip will provide open space, public access, visual access to the Oso Creek/Oso Bay system, habitat for wildlife, and will also help to filter pollutants in runoff before the water enters the Oso Creek/Oso Bay system.

The City will identify land in the Oso Bay/Oso Creek area available for fee-simple acquisition and/or acquisition of conservation easements for siting the new section of the hike and bike trail. The City will also work with landowners to negotiate the acquisition deals. Conservations easements or similar deed restrictions will be used to protect, in perpetuity, the land and its natural resources and preserve the public use and benefit of the land in accordance with the natural resource value.

Project Objectives:

1. Develop a list of properties in the Oso Bay/Oso Creek corridor suitable for the hike and bike trail which would also provide a suitable riparian buffer strip.
2. Acquire the property and/or conservation easements.
3. Secure conservations easements or similar deed restrictions.

Project #0307 Continue to Support Development of Local Land Trust

Performing Organization: Coastal Bend Land Trust
Total Funding: \$50,000
CBBEP Bays Plan Actions: SM-3, HLR-1, HLR-2

During the development of the Coastal Bend Bays Plan, the CBBEP Management Conference called for the establishment of a 'Locally Administered Land Trust Fund' for the dedicated purpose of habitat protection. During FY 2000, and 2001 the CBBEP provided the Coastal Bend Bays Foundation with funds to establish the Coastal Bend Land Trust (CBLT). The purpose of this project is to continue to assist the CBLT in developing and becoming firmly established within the community.

Over the past three years, the CBLT has become incorporated as an independent organization, formed a Board of Directors, developed a detailed business plan including operating and organizational procedures, developed a strategic financial plan aimed at achieving financial security, and updated outreach materials including a landowner information brochure. The CBLT has also identified specific habitat protection objectives and focus areas within the CBBEP region and acquired property and/or conservation easements within those focus areas for the purpose of preserving habitat, maintaining open space, and ensuring watershed and water quality protection within the CBBEP region. The CBLT has become an active focal point for conservation efforts through acquisition of property and conservation easements within the CBBEP region.

The major objectives of this project are to continue the process of informing landowners about the benefits of land conservation and conservation easements, to continue acquiring property and/or easements for the purposes of conservation, firmly establish a dynamic Board of Directors to guide future financial development, to assist the CBLT in continuing to build new partnerships and securing additional funding. The CBLT is required to find and secure a 3 to 1 match for CBBEP funds either through additional funding or through donations of property or conservation easements.

Project Objectives:

1. Contact and inform landowners about the benefits of land conservation and conservation easements.
2. Acquire property and/or easements for the purposes of conservation.
3. Continue development of CBLT Board of Directors.
4. Secure a 3:1 match for CBBEP funds.

Project #0308 Continuation of Atmospheric Deposition Monitoring Project

Performing Organization: **Texas A&M University-Geochemical and Environmental Research Group**
Total Funding: **\$50,000**
CBBEP Bays Plan Actions: **WSQ-3**

During the development of the CBBP, the Management Conference funded a project to develop a total loadings model that would determine total loads to Corpus Christi Bay. Data gaps in atmospheric pollutants and their sources were identified as a result of this project. A follow-up study was funded to determine atmospheric pollutant contributions to the bay system. This study has been on-going since April 1997. In June 2000, the site was established as a part of the National Atmospheric Deposition Program-National Trends Network (NADP-NTN).

The proposed FY2003 project will be a continuation of the on-going project and will provide an additional year of data. This project will provide resource managers with a data set capable of capturing data variations for evaluating trends in atmospheric pollutant sources. Data gathered as part of the NADP-NTN will be consistent with other sites around the country for comparative purposes.

At the present time, Corpus Christi has the only coastal monitoring site in existence along the Texas coast. The continued monitoring of this site will provide information from this area to both national (U.S.) and regional (Gulf of Mexico) efforts as well as to local (Coastal Bend) efforts. The data will be evaluated to identify actions (if any) that can be administered to reduce the amounts of undesirable deposition.

Project Objective:

1. Continue to coordinate with the National Atmospheric Deposition Program (NADP) site with TAMU-GERG and Illinois State Water Survey personnel to gather sufficient information to characterize/quantify the loadings to the bay and estuary.

Performing Organization: **Center for Coastal Studies, Texas A&M University-
Corpus Christi**
Total Funding: **\$155,000**
CBBEP Bays Plan Actions: **WSQ-1, WSQ-3, WSQ-4, WSQ-5**

CBBEP has developed a comprehensive water quality monitoring program which collects water quality data throughout the CBBEP area. The CBBEP's water quality monitoring and assessment effort establishes a routine monitoring program that helps to provide resource managers with an ongoing assessment of water quality and addresses special areas of concern (303d list). The CBBEP water quality monitoring program allows other agencies and organizations to expand the effort with either additional parameters or monitoring events. CBBEP will prepare a comprehensive summary report on the status and trends of water quality and other key indicators of the health of the bay system on a five-year cycle.

A. Regional EMAP Based Water Quality Monitoring

The EPA Office of Research and Development's Environmental Monitoring and Assessment Program (EMAP) probability based sampling design allows for the determination of current status, extent, changes, and trends in the water quality and ecological community of the CBBEP project area with a scientifically sound monitoring plan. An EMAP sampling program is also designed to determine the condition of resources, to provide information to aid in evaluation of environmental policies, and to help identify emerging environmental concerns before they become widespread problems.

The CBBEP is committed to implementing an EMAP based regional water quality monitoring program that will provide the information needed to assess the health of the estuary. A regional water quality program allows the CBBEP and communities within the program area, to interact with local, state, and federal entities on the larger goal of protecting and preserving the entire Gulf Coast environment.

B. Dissolved Oxygen Monitoring – Upper Laguna Madre/Baffin Bay System and the Oso Bay/Oso Creek System

The upper Laguna Madre/Baffin Bay and Oso Creek/Oso Bay systems are on the 303(d) list for low dissolved oxygen and bacteria. This component of the water quality monitoring project will collect dissolved oxygen data at selected sites over a 24 hour period on a seasonal basis. This information will be helpful to determine if the previously observed low dissolved oxygen levels are a response to natural conditions, perhaps justifying the development of site specific standards, or is indicative of anthropogenic impacts.

C. Monitor Bacteria Levels at Priority Areas

Previous monitoring projects at a limited number of sites have documented the relationship between rainfall events and elevated bacteria levels in bay waters. This effort will expand to include selected smaller communities located on the bay and rural areas. Monitoring will be during dry weather and wet weather conditions.

Project #0310 Nueces Bay Ichthyoplankton Monitoring

Performing Organization: **Center for Coastal Studies, Texas A&M University-
Corpus Christi**
Total Funding: **\$20,000**
CBBEP Bays Plan Actions: **FW-1, WSQ-4**

Nearly all marine fishes have an early life history involving a planktonic phase. Variability in numbers of larvae surviving through the dispersal and settlement phase can be the ultimate determinate in adult population sizes, creating a great potential for enormous variation from season to season. Numerous estuarine-dependent species (those utilizing the estuary as a nursery ground for the early portion of their life cycle) spawn well offshore and their eggs and larvae must be transported into coastal and estuarine nursery grounds against the net seaward flow. These species (including several commercially important ones) typically have extended larval periods, which are subjected to the widest degree of physical processes and can ultimately affect recruitment. Along the lower Texas coast, the Corpus Christi/Nueces Bay system serves as an estuarine nursery ground separated from the major riverine input.

Alternative efforts to maximize freshwater inflow to the Nueces River Delta, such as the Rincon Bayou channel and pipeline, are being pursued. To determine the ecological benefits and to provide assurances that "no harm" is caused by utilizing these efforts, water quality, biological, and ecological response data must be collected and analyzed. This ichthyoplankton monitoring project will attempt to determine the type and extent of effects the altered flows may have on fish populations and community structure.

Although the ichthyoplankton monitoring project is being implemented by Texas Parks and Wildlife, CBBEP funding will provide the needed additional support for student workers to assist with field sampling and laboratory analysis. Texas Parks and Wildlife will provide a copy of the results of their monitoring project to the CBBEP.

Project Objectives:

1. Provide student assistance to support water quality and biological monitoring in Nueces Bay.
2. Determine the extent of larval fish recruitment to the Nueces delta.
3. Document the ichthyoplankton distribution of commercially important, estuarine-dependent finfish.
4. Assess the spatial and temporal distribution of larval and post-larval fish within Nueces Bay.
5. Determine if the discharge of the Nueces River away from the delta region acts as a 'recruitment barrier' for transport and recruitment of fishes into the Nueces delta.

Project #0311 Nueces County Hilltop Park Nature Area Enhancements

Performing Organization: Nueces County
Total Funding: \$50,000
CBBEP Bays Plan Actions: HLR-1, HLR-2, BTR-2

CBBEP funding will be a component of a larger effort by Nueces County and Texas Parks and Wildlife to renovate Hilltop Park. CBBEP funds will be used to help construct a nature trail throughout a new section of the park with kiosks, educational signage, and footbridges crossing water features.

The *Coastal Bend Bays Plan* identifies the need for protecting environmental resources, while promoting environmental stewardship, providing appropriate public access, and expanding tourism. Tourism, especially eco-tourism is an important part of the local economy and environmental education and stewardship help protect and preserve our resources for generations to come.

The CBBEP and Nueces County recognize the benefits of preserving ecologically special areas. Hilltop Park is well recognized as an ecologically unique area. The park is located in an urban setting in northwest Corpus Christi yet, due to the existing undisturbed native vegetation, it provides important habitat for both migrating neo-tropicals and resident/breeding bird species. The Park is on the Texas Parks and Wildlife Department's Great Texas Birding Trail and is widely recognized by birders as the only place in the greater Corpus Christi area to find several less common species of birds. Native Tamaulipan thornscrub vegetation, adjacent grasslands, and an intermittent freshwater supply found in this park are important ecological resources. The park provides an excellent opportunity for public viewing of wildlife as well as other recreational benefits such as walking and picnicking, educational benefits via signage and learning opportunities.

Project Objectives:

1. Construct a nature walking trail.
2. Construct footbridges on the nature trail.
3. Construct kiosks and educational signage.

Project #0312 Oily Bilge Water Recovery Project

Performing Organization:	Texas A&M University–Corpus Christi, University Outreach
Total Funding:	\$30,000
CBBEP Bays Plan Actions:	NPS-1

Oil spills to marine waters have often been traced to commercial and recreational marine vessel operations. Often the spills result from “pumping out” bilge water that has been contaminated with oil. These releases result in environmental impacts, significant cleanup costs, and require constant monitoring of these areas by TGLO and the Coast Guard. The goal of this project is to reduce oily bilge discharges in the harbors and channels thereby reducing pollution to the bays and estuaries. The identification of need for this project and development was through a partnership between Texas A&M University-Corpus Christi/Pollution Prevention Partnership, Texas General Land Office (TGLO), the US Coast Guard, Texas Parks & Wildlife, Coastal Bend Bays & Estuaries Program, marine facility owners, commercial vessel owners & operators, the City of Aransas Pass, and various technical advisors.

The implementation of this project will be a cooperative effort with the Texas General Land Office that will include the design, manufacture, installation, and start-up of two (2) Mobile Bilge Pumpout Stations to be located at Rockport-Fulton and Port Aransas Harbors. Each unit will consist of a skid-mounted tank and pump designed to pump-out and hold up to 3000 gallons of contaminated bilge water and may also include a parallel feature to pump-out and hold crankcase oil. TGLO will dispose of the contaminated water as part of their existing bilge pumpout and cleanup activities. The TGLO owns several bilge pumpout facilities and has already resolved regulatory issues concerning oily bilge water management, treatment and disposal resulting from facilities such as the facilities proposed.

Project Objectives:

- 1) Provide mobile bilge pumpout capabilities at Rockport-Fulton and Port Aransas.
- 2) Educate commercial vessel operators on availability and operating procedures.

Project #0313 Public Outreach Events and Activities

Performing Organization:	CBBEP
Total Funding:	Community Events and Festivals
\$13,000	Coastal Bend Wildlife Photo Contest
\$10,000	CBBEP Newsletter “Living On The Edge”
\$ 8,000	CBBEP Website
\$ 5,000	CBBEP Brochure
\$ 5,000	CBBEP Annual Meeting and Public Forums
\$ 6,500	National Ocean Science Bowl
\$ 5,000	Other Outreach Opportunities
\$ 4,000	
\$56,500	

CBBEP Bays Plan Actions: BTR-1, PEO-2, PEO-3, PEO-5

The goal of these public education and outreach projects is to provide the public with the environmental science knowledge to make sound decisions regarding the effective management of bay resources and to promote environmental stewardship through increasing awareness of the resources and the issues regarding their use.

Project Objectives:

Community Events and Festivals – CBBEP’s presence at community events plays an important role to draw the public’s attention to bay resources and environmental protection. Community events may include: Earth Day/Bay Day, Bayfest, Great Texas Birding Classic, International Migratory Bird Day, and other area events. In addition, the CBBEP will sponsor an interactive wetland display to be used for educational purposes at these community events.

Coastal Bend Wildlife Photo Contest – The purpose of the contest is to save, create and maintain wildlife habitats through partnerships with private landowners. The winners split prize money with landowners from a 10-county area.

CBBEP Newsletter “Living On The Edge” – This newly designed newsletter will serve as an important outreach tool and help keep Estuary Council members and the general public informed about local environmental issues and activities of the CBBEP.

CBBEP Website – The newly designed informative and interactive tool is a tremendous resource for general CBBEP information and projects with continual updates to improve navigation.

CBBEP Brochure – The brochure serves as a general overview/information about the Program. It is distributed at all events, meetings, outreach, schools, etc.

CBBEP Annual Meeting and Public Forums – The CBBEP Annual Meeting will bring together all Estuary Committees for project updates including past, present, and future status. The CBBEP sees an opportunity to partner with the Coastal Bend Bays Foundation on their monthly forum meetings. This creates an educational opportunity for the public.

National Ocean Science Bowl - This event provides the opportunity to increase knowledge of the aquatic environment on the part of students, their teachers and parents, as well as to raise public awareness of ocean-related concerns.

Other Outreach Opportunities - Public outreach continues to be a key element of the CBBEP to educate Coastal Bend residents about the importance of bays and estuaries to their communities. Program staff will utilize local and regional media (newspapers, television and radio stations, etc.), other public events, exhibit ideas, and other CBBEP materials to implement the goals of the CBBEP Public Outreach Strategy.

Project #0314 Estuary Exhibit Redesign at the Texas State Aquarium

Performing Organization: Texas State Aquarium
Total Funding: \$6,000
CBBEP Bays Plan Actions: PEO-1, PEO-3

The *Coastal Bend Bays Plan* highlights the importance to coordinate with private entities to identify and promote development and/or enhancement of educational facilities for school groups and other appropriate user groups. The *Texas Bays & Estuaries* exhibit at the Texas State Aquarium has been identified as an existing site that can be redesigned and improved to increase the visualization and educational aspects for the visitor. The aquarium has a good visitor infrastructure in place that promotes the CBBEP's priority issues to the community.

Project Objectives:

The Texas State Aquarium will design a new exhibit gallery highlighting *Texas Living Shores*, to replace the current *Texas Bays & Estuaries* exhibit. The original proposal for construction of *Texas Bays & Estuaries* estimated the exhibit life span to be approximately five years. *Texas Bays & Estuaries* opened in 1998, and a re-design of the gallery will provide an opportunity to reach more visitors in an engaging way.

The *Living Shore Gallery*, which currently encompasses the *Texas Bays and Estuaries* exhibit, further explores the Gulf Coast shoreline. The new gallery will focus on the entire shoreline ecosystem, including estuarine, barrier island, and nearshore habitats. Visitors will explore the vital role that marshes, bays, seagrass beds, and barrier islands play in the ecology of the oceans. The existing *Sea Star Discovery Pool* will form the centerpiece for the new gallery. Here, children and adults have the opportunity to get their hands wet and actually hold and examine up close some of the creatures in the touch pool. Animals in this exhibit include horse conchs, lightning whelks (the state shell of Texas) and hermit crabs.

Project Objectives:

1. The exhibit will present how a barrier island system, including its estuaries, supports ocean systems.
2. Focus on why this ecosystem is important to the visitor.
3. How the visitor can help to protect it.

Project #0315 Teaching Environmental Science & Applied Connections Course

Performing Organization:	Texas A&M University-Corpus Christi
Total Funding:	\$5,000 Teaching Environmental Science
	<u>2,500</u> Applied Connections
	\$7,500
CBBEP Bays Plan Actions:	PEO-3

One of the many goals of the *Coastal Bend Bays Plan*, is to provide curricula for all levels of environmental education and promote greater use of outdoor educational facilities as a means of reaching children, young people, and adults. The environmental science courses include workshops and teacher training classes that focus on training key educators and leaders within the project area to subsequently train others within their organizations or community.

Teaching Environmental Science – This graduate course offered to a maximum of twenty-five Corpus Christi and surrounding area secondary (6-12) public and private school teachers. Course participants will receive formal and informal training focusing on important land, air and water issues relating to the environment/conservation including the ecologic and economic importance of management issues unique to the Coastal Bend environment. Three (3) hours of graduate credit will be awarded by TAMUCC to each participant completing the course. The Texas Education Agency will award each course participant with forty-five (45) hours of TEEAC credit. Participants will receive various teaching aids/materials during the course. Transportation to and from the field will be provided.

Applied Connections Course – This course is offered to math, science and communications teachers Grades 5-12. The goal is to create awareness among teachers of area industries and work opportunities so that they can better educate, counsel, and guide their students. It provides opportunities for teachers to learn about how the objectives they teach are applied in the real world and to expect them to create activities for the classroom based on real world data and world-of-work applications of those objectives. Teachers receive educational credit for the course.

Project #0316 Nonpoint Source Outreach & Education Project

Performing Organization: **Texas A&M University-Corpus Christi
University Outreach**
Total Funding: **\$50,000**
CBBEP Bays Plan Actions: **NPS-1**

CBBEP characterization studies have documented the contribution of nonpoint source pollution and the difficulty of managing that source of pollution to our bays and estuaries. Coupled with projections for significant population growth throughout the Coastal Bend area, nonpoint source pollution management and control will become increasingly important. CBBEP has begun to take action by developing an outreach effort to inform communities of the recent changes in stormwater regulations that may affect their communities. These outreach efforts have been coordinated with TNRCC to avoid duplication of efforts.

The CBBEP Nonpoint Source Pollution Prevention Program has been a received by the community with great enthusiasm. Officials from most of the targeted Coastal Bend communities have received “general orientation” presentations and an updated presentation on best management practices relating to storm water pollution prevention measures. The program has been instrumental in identifying issues concerning nonpoint source pollution and solutions to minimize the pollution. The program continues to be a success by keeping a high level of interest on stormwater pollution prevention the communities.

Project Objectives:

1. Explore additional outreach mechanisms to better influence communities and organizations to implement nonpoint source management practices.
2. Continue to get participation from communities and organizations to implement nonpoint source pollution prevention management practices.
3. Continue nonpoint source pollution prevention workshops to encourage additional participation.
4. Continue to conduct site visits and provide nonpoint pollution prevention assistance to local businesses and governments.
5. Continue to provide educational materials for students and teachers to instill environmental stewardship in their everyday actions.

Project #0317 Keepers of the Coast

Performing Organization: **Texas State Aquarium**
Total Funding: **\$25,000**
CBBEP Bays Plan Actions: **PEO-3**

One of the greatest challenges facing educators today is providing rural and low-income school districts with the resources to meet the education needs of today's youth. Many rural districts have limited funds for enhanced learning experiences such as outreach visits and field trips. During FY 2002, the CBBEP provided additional educational resources for helping educators meet state academic standards. This project will provide schools, educators, and students with opportunities to enhance current classroom teaching strategies through the use of environmental education curricula and outdoor education facilities in order to stimulate interest and curiosity about the natural world, thereby promoting greater awareness and respect for our natural resources.

The Texas State Aquarium will continue to implement their "*Keepers of the Coast*" (KOTC) program which provides a series of hands-on learning experiences for youth and educators. Schools will be selected from the CBBEP area based on economic need, minority population, and other available statistics. The project will provide a variety of components, including teacher training at in-service or workshops, outreach visits to schools, onsite programs at various local hands-on learning centers, establishment of community projects, family learning events, and distribution of the KOTC Teacher Resource Guide utilizing classroom activities which focus on the Gulf of Mexico and its coastal habitats. The programs and activities in the KOTC Resource Guide support the state education standards and the National Environmental Education Guidelines. Through the project, the selected groups will gain knowledge and understanding of the linkages between inland and coastal habitats. With this knowledge, the students will be better prepared to encourage sustainable management of local water resources, watersheds, and coastal waters.

Project Objectives:

1. Select the target schools within the CBBEP area.
2. Utilize available education resources to conduct teacher training.
3. Conduct educational outreach visits to schools.
4. Coordinate and implement educational field trips to local facilities.

Project #0318 Continue Development of Geographic Information System

Performing Organization: **Texas A&M University-Corpus Christi**
Total Funding: **\$20,000**
CBBEP Bays Plan Actions: **All Action Items**

During FY 2002 the CBBEP initiated development of a geographic information system (GIS) which provides a multi-scale tool to archive and integrate information layers. The GIS can be used to efficiently track and assess projects and help analyze status and trends to determine the direction of future projects. It also allows CBBEP staff to prepare maps and graphic presentation and proposal materials, and provide information to the public. In addition, GIS project layers provide a tool for quickly locating projects, determining stages of completion, and evaluating the progress made toward implementation of the Coastal Bend Bays Plan.

The purpose of the project is continue collecting relevant existing data, to enter select existing CBBEP project data into the GIS, to continue to provide assistance with development and implementation of the GIS, and to continue staff GIS training.

Project Objectives:

1. Collect relevant existing GIS data.
2. Enter select existing CBBEP project data into the GIS.
3. Continue to provide assistance with development and implementation of the GIS.
4. Continue to provide CBBEP staff with GIS training.

Project #0319 Identify Potential Habitat Restoration & Enhancement Sites

Performing Organization: **Texas A&M University-Corpus Christi**
 Center for Coastal Studies
Total Funding: **\$20,000**
CBBEP Bays Plan Actions: **HLR-1, HLR-2**

The Bays Plan calls for efforts to identify habitat types that are most at risk and to work with landowners and local and state governments to conserve those habitats. Within the Coastal Bend, many separate efforts are underway to protect wetland and upland habitat. It is critical to the CBBEP's long-term environmental planning effort to be well informed and to have access to all relevant information regarding other habitat conservation projects in the CBBEP area. Data including project goals, funding entities and budgets, long-term plans, GPS coordinates, and digital site photos of other habitat conservation projects will be gathered and the information will be added to the CBBEP GIS.

In addition, funds frequently become available to the CBBEP for possible habitat conservation projects, especially wetland conservation projects. Wetlands have been specifically identified by the CBBEP and others as an important coastal natural resource that is at risk. However, preparation of documents describing project parameters sufficient to justify receipt of funding is often difficult to accomplish in the short time frame frequently provided. Therefore, it is important that potential projects be identified and well delineated prior to the availability of the funds. Potential wetland conservation projects should include project descriptions, goals, and objectives complete with aerial and ground photographs and maps.

Project Objectives:

1. Collect data regarding conservation projects conducted by other entities in the CBBEP area.
2. Identify potential wetland restoration and enhancement sites.
3. Using the site information generated, design potential wetland conservation projects.
4. Enter data into the GIS.

Project #0320 Support Animal Rescue and Rehabilitation

Performing Organization: **Various Organizations**
Total Funding: **\$10,000**
CBBEP Bays Plan Actions: **HLR-4, HLR-5**

Animal rescue and rehabilitation programs provide important information on species of concern and increase public awareness about our ecosystem. Each year thousands of protected, threatened, or endangered species become stranded, ill, or injured along the Texas coast. Services provided by existing programs include stranding response, evaluation, temporary refuge for exhausted migrant animals, acute and comprehensive medical care, release of rehabilitated animals, and long-term care for permanently disabled non-releasable animals. These animals are invaluable tools for education. Rescued animals also encourage public environmental stewardship, remind the public of how closely we are tied to our environment and of how our actions ultimately affect the health of our coastal waters and the animals that depend on them.

The Coalition of Animal Rescue and Rehabilitation (CARR) was formed as a result of previous CBBEP funding. CBBEP helped to coordinate a communications network of animal rescue and rehabilitation professionals and volunteers, helped to develop a CARR management plan to aid in communications and identifying the priority needs of animal rescue and rehabilitation programs. Annual CARR workshops will be held to implement and help to fund the priority items established in the management plan.

Project Objectives:

1. Conduct workshop to define communication and training needs of professionals and volunteers involved with animal rescue and rehabilitation.
2. Provide opportunity for CARR to discuss permit, coordination and communication needs with regulatory agencies.
3. Implement selected priority items established in the animal rescue and rehabilitation management plan.

VIII. Program Administration

CBBEP administrative staff (3 FTE's) will provide organizational and logistical support for Estuary Council and subcommittee meetings, and coordinate/communicate as necessary with appropriate groups, including stakeholder groups, state and federal agencies, local governments, and professional groups relevant to CCMP implementation. Staff will:

1. Acquire, manage, and disperse funds to implement the *Bays Plan*;
2. Monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments;
3. Develop a prioritized biennial work plan and budget for Estuary Council review and approval;
4. Coordinate the periodic update of the *Bays Plan*, the *State of the Bay* report, the *Implementation Strategy*, and other key documents of the program;
5. Provide logistical support for all meetings, workshops, symposia, and special events related to program mission;
6. Provide for overall program coordination with EPA Region 6 and TNRCC.
7. Participate in regional, state, and national conferences and meetings relevant to estuarine management.

IX. Project Management

CBBEP Project Management staff (7 FTE's) will coordinate/communicate as necessary with appropriate groups, including stakeholder groups, state and federal agencies, local governments, and professional groups relevant to CCMP implementation. Staff will:

1. Develop and implement partnership projects with local governments, state, and federal agencies, and private organizations;
2. Monitor, track, and report on implementation performance by implementing partners, and work to maintain implementation commitments;
3. Provide communication and coordination with the Texas Coastal Management Program and the Coastal Coordination Council, the Gulf of Mexico Program, the Texas Natural Resource Conservation Commission (TNRCC), and other relevant coastal/watershed programs;
4. Coordinate the review of proposed actions of federal, state, and local projects in an open process for consistency with the *Bays Plan*;
5. Develop a prioritized biennial work plan and budget for Estuary Council review and approval;
6. Provide for overall program coordination, including quality control/quality assurance procedures with EPA Region 6 and TNRCC.
7. Participate in regional, state, and national conferences and meetings relevant to estuarine management.

X. Program Expenses

CBBEP funds will be used to support continued program implementation, evaluation, and reporting. Funds are also necessary to provide logistical support for Estuary Council and subcommittee meetings. Expense categories are as follows:

1. Travel – allows Program staff to attend state, regional and national meetings, workshops, and conferences;
2. Supplies – as needed, for the day-to-day operations of the Program;
3. Equipment – purchase of items over \$1,000, i.e. computers;
4. Other – copier rental, temporary staff, postage, communication services, accounting services, printing, etc.

XI. Working Capital

The CBBEP Board of Directors has established working capital out of local funding. The funds will be set aside for possible future projects, matching funds and/or emergency funding.

XII. Summary

On September 1, 2002, the Coastal Bend Bays & Estuaries Program will begin Year 5 of implementing the *Coastal Bend Bays Plan*. This FY 2003 Work Plan describes the proposed work to be initiated during FY 2003. Of the total funds identified in the Work Plan budget, \$667,500 are new (FY 2003) federal funds, \$849,777 are new (FY 2003) state funds, \$5,150,000 are new (FY 2003) special funds, and \$350,000 are new (FY 2003) local partner funds. The total budget for this FY 2003 Work Plan is \$7,017,277.

TABLE 1: FY 2003 COMPREHENSIVE ANNUAL WORK PLAN OUTLINE

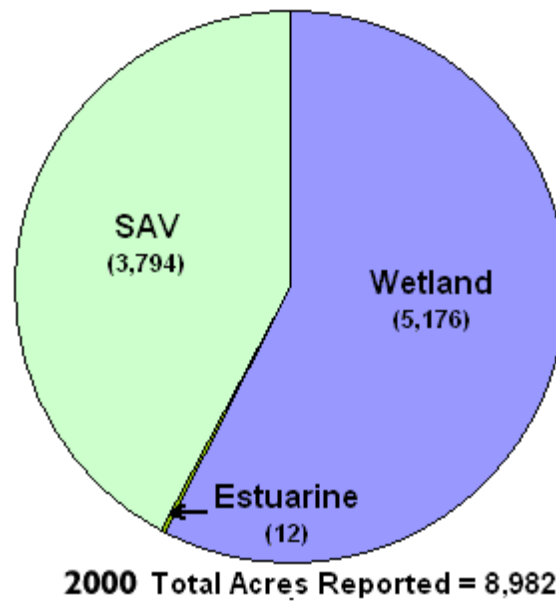
	PROJECT #	PROJECT TITLE	ACTION ITEM(S)	TOTAL FUNDING	PERFORMING PARTY
1	0301A	Continuation of Whooping Crane Habitat Restoration & Erosion Protection	HLR-1, HLR-2	30,000	Texas General Land Office - CEPRA
2	0301B	Continuation of Goose Island State Park Habitat Restoration & Erosion Protection	HLR-1, HLR-2	60,000	Texas General Land Office - CEPRA
3	0301C	Continuation of Sunfish Island Habitat Restoration & Erosion Protection	HLR-1, HLR-2	75,000	Texas General Land Office – CEPRA
4	0301D	Continuation of Indian Point Habitat Restoration & Erosion Protection	HLR-1, HLR-2	60,000	Texas General Land Office – CEPRA
5	0301E1	Continuation of Bayside Shoreline Restoration & Erosion Protection	HLR-1, HLR-2	15,000	Texas General Land Office – CEPRA
6	0301E2	Continuation of Mission Bay Habitat Enhancement & Erosion Protection	HLR-1, HLR-2	15,000	Texas General Land Office – CEPRA
7	0301E3	Continuation of Ingleside Habitat Enhancement & Erosion Protection	HLR-1, HLR-2	15,000	Texas General Land Office – CEPRA
8	0301F	Continuation of Port Aransas Habitat Protection & Erosion Control	HLR-1, HLR-2	30,000	Texas General Land Office – CEPRA
9	0302	Colonial Waterbird Rookery Island Management	HLR-4, HLR-2, BTR-3, PEO-5	125,000	CBBEP
10	0303	Public Education & Outreach Media Campaign	BTR-1, PEO-2, PEO-3, PEO-5	50,000	CBBEP
11	0304	Walk-Through-The-Wetlands / Adopt-A-Wetland	BTR-1, PEO-2, PEO-3, PEO-5	25,000	TAMU-CC Center for Coastal Studies, Corpus Christi Botanical Gardens
12	0305	Nueces Delta Habitat Acquisition Project	SM-2, HLR-1, HLR-2	5,150,000	CBBEP
13	0306	Oso Bay / Oso Creek Habitat Acquisition Project	SM-2, HLR-1, HLR-2	75,500	City of Corpus Christi & Coastal Bend Land Trust
14	0307	Continue to Support Development of Local Land Trust	SM-3, HLR-1, HLR-2	50,000	Coastal Bend Land Trust
15	0308	Continuation of Atmospheric Deposition Monitoring Project	WSQ-3	50,000	TAMU Geochemical and Environmental Research Group
16	0309	Continue Water & Sediment Quality Monitoring	WSQ-1, WSQ-3, WSQ-4, WSQ-5	155,500	TAMU-CC Center for Coastal Studies
17	0310	Nueces Bay Ichthyoplankton Monitoring	FW-1, WSQ-4	20,000	TAMU-CC Center for Coastal Studies

18	0311	Nueces County Hilltop Park Nature Area Enhancements	HLR-1, HLR-2, BTR-2	50,000	Nueces County
19	0312	Oily Bilge Water Recovery Project	NPS-1	30,000	TAMU-CC University Outreach
20	0313	Public Outreach Events and Activities	BTR-1, PEO-2, PEO-3, PEO-5	56,500	CBBEP
21	0314	Estuary Exhibit Redesign at the Texas State Aquarium	PEO-1, PEO-3	6,000	Texas State Aquarium
22	0315	Teaching Environmental Science & Applied Connections	PEO-3	7,500	TAMU-CC
23	0316	Nonpoint Source Outreach & Education Project	NPS-1	50,000	TAMU-CC University Outreach
24	0317	Keepers of the Coast	PEO-3	25,000	Texas State Aquarium
25	0318	Continue Development of Geographic Information System	All	20,000	TAMU-CC
26	0319	Identify Potential Habitat Restoration & Enhancement Sites	HLR-1, HLR-2	20,000	TAMU-CC Center for Coastal Studies
27	0320	Support Animal Rescue and Rehabilitation	HLR-4, HLR-5	10,000	Various Organizations

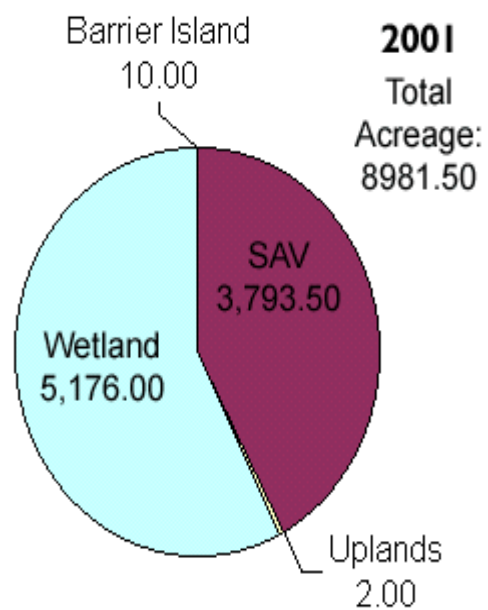
Attachment 6

GPRA Reports (From USEPA Website)

GPRA 2000 Report Summary by Habitat Category



GPRA 2001 Report Summary by Habitat Category



Year 2000 Projects					
CCMP Action	Project Name	Activity	Habitat Type	Habitat Category	Acres Restored
HLR-1	Aransas Pass Shoreline Protection Project	Restoration	Brackish marsh	Wetland	10.0
HLR-2	Corpus Christi Beach Shoreline Restoration	Restoration	Brackish marsh	Wetland	3.0
HLR-1	Oso Bay/Creek Wetland Protection	Protection	Brackish marsh	Wetland	30.0
BTR-2	Ropes Park Expansion Project	Protection	Bay shoreline & uplands	Estuarine	2.0
HLR-1, BTR-2	Mollie Beatty Habitat Protection	Restoration	Brackish marsh	Wetland	10.0
HLR-2	Sunset Lake Circulation Enhancement	Enhancement	Brackish marsh	Wetland	31.0
HLR-2	Aransas Pass Nature Park Project	Enhancement	Brackish marsh	Wetland	10.0
HLR-2	Baffin Bay Wetland Creation Project	Establishment	Fresh marsh	Wetland	25.0
HLR-1, HRL-2	Rookery Island Restoration & Protection Project	Establishment	Emergent island habitat	Estuarine	10.0
HLR-2	Marsh Shoreline Restoration	Restoration	SAV	SAV	5.5
HLR-2	Hubert Kaufer Park Shoreline Protection	Restoration	SAV	SAV	15.0
HRL-1	Seagrass Protection Project	Protection	SAV	SAV	3773.0
HLR-1	Pollywog Pond Public Access Management Project	Restoration	Fresh marsh	Wetland	37.0
HLR-1	Paradise Pond Habitat Protection Project	Restoration	Fresh marsh	Wetland	20.0
HLR-1, HLR-2	Nueces Delta Project	Protection	Brackish marsh & adjacent uplands	Wetland	5000.0
Total					8981.5

Year 2002 Projects					
Project Name	Activity	Project Description	Habitat Type	Acreage	Linear Miles
Ropes Park Expansion Project	Protection	Bay shoreline & uplands	uplands	2.00	
Paradise Pond Habitat Protection Project	Enhancement	Fresh Marsh	wetland	20.00	
Hubert Kaufer Park Shoreline Protection	Enhancement	SAV	SAV	15.00	
Baffin Bay Wetland Creation Project	Establishment	Fresh marsh	wetland	25.00	
Aransas Pass Nature Park Project	Enhancement	Brackish marsh	wetland	10.00	
Nueces Delta Project	Protection	Brackish Marsh and adjacent uplands	wetland	5,000.00	
Mollie Beatty Habitat Protection	Enhancement	Brackish marsh	wetland	10.00	
Oso Bay/Creek Wetland Protection	Protection	Brackish marsh	wetland	30.00	
Corpus Christi Beach Shoreline Restoration	Rehabilitation	Brackish marsh	wetland	3.00	
Aransas Pass Shoreline Protection Project	Enhancement	Brackish marsh	wetland	10.00	
Marsh Shoreline Restoration	Enhancement	SAV	SAV	5.50	
Seagrass Protection Project	Protection	SAV	SAV	3,773.00	
Rookery Island Restoration and Protection Project	Establishment	Emergent Island	barrier island	10.00	
Sunset Lake Circulation Enhancement	Enhancement	Brackish marsh	wetland	31.00	
Pollywog Pond Public Access Management Project	Enhancement	Fresh Marsh	wetland	37.00	
Total				8981.50	

Attachment 7

Outreach Program Summary - *Protecting Our Bays & Estuaries*