



Coastal Bend Bays & Estuaries Program, Inc.

CCMP Implementation Review

For Fiscal Years
1999, 2000 & 2001



Prepared for the
U.S. Environmental Protection Agency

Edited and Designed by Douglas Baker,
Digital Information Design

Comprehensive Conservation Management Plan

Implementation Review for Fiscal Years 1999, 2000 & 2001

It has been less than three years since the Coastal Bend Bays & Estuaries Program (CBBEP) began implementing the Comprehensive Conservation and Management Plan (CCMP) known locally as the Coastal Bend Bays Plan (see attachment 1 & 2). This document highlights the successes and challenges experienced by the Program staff and Management Conference during the report period.

In 1999, the Texas State Legislature passed the Texas Estuaries Act which recognized the environmental and economic value of publicly held resources in Texas' estuaries. The Act identifies the Texas Natural Resource Conservation Commission (TNRCC) as the state's lead management agency and directs other state agencies to work together. In its biennial funding request, the TNRCC identifies the CBBEP as the facilitating organization for coastal resource management in the Coastal Bend. These actions establish a solid foundation of state support for implementing the CCMP.

Progress implementing CCMP actions is demonstrated by several measures. The Program and its partners achieved programmatic progress on 94 percent of CCMP actions (see Figure 1). Action-specific environmental progress directly attributed to CBBEP activities is estimated at 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 approximately \$9 million in total resources for the period, a nine fold increase over EPA's \$320 base funding (see Figure 2). Broad support for the Program's activities is evidenced by the range of contributors including local governments, industries, NGOs and state and federal agencies.

This is an exciting time for the CBBEP and the Management Conference. In less than three years the Program and its partners have initiated over 50 implementation projects. But that is just a start. The future is bright with opportunities to strengthen existing partnerships and create new ones, to expand the scope and breadth of projects in the coming years, and to extend environmental outreach and education to the furthest reaches of the Program area.

implementation report card

Number of CCMP Actions: 50

Actions with Programmatic Progress: 47

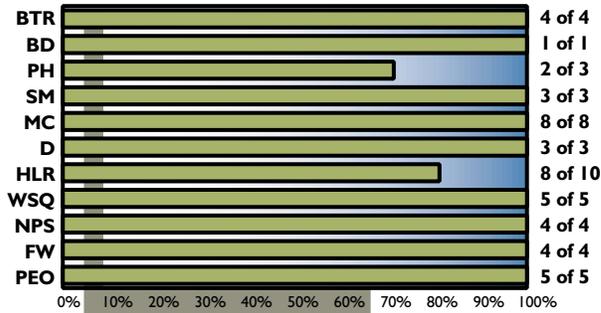
Number of CCMP Primary Projects: 54

Action-Specific Environmental Progress: 8,982 acres

EPA \$320 Funds: \$984,158

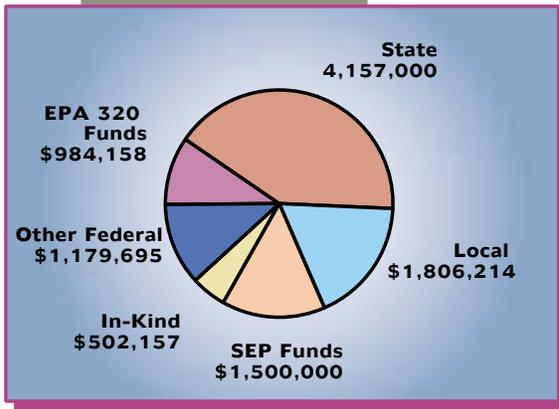
Leveraged Funds : \$9,145,066

Figure 1. Programmatic progress on CCMP actions.



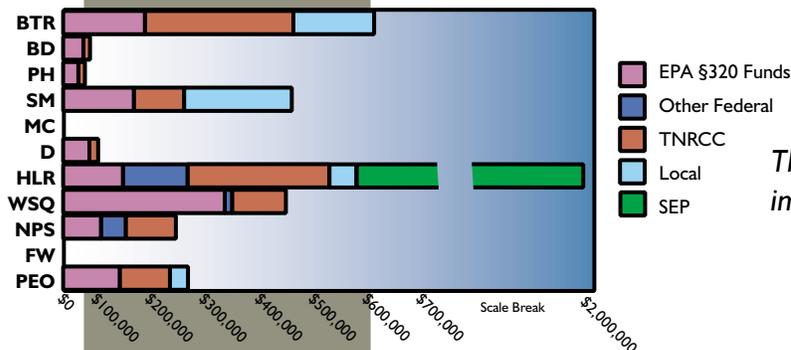
Progress reported here includes CBBEP and partner activities performed with or without direct Program participation

Figure 2. Total Program funding for operations and projects.



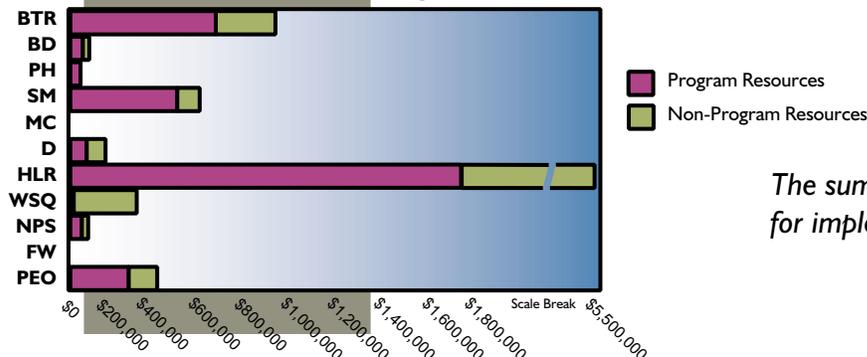
The sum of resources allocated during the report period for CCMP projects and Program operations is \$10,129,224.

Figure 3. Program resource allocation by CCMP Action Plan.



The sum of Program resources allocated for implementation projects is \$4,873,779.

Figure 4. Total resources allocation by CCMP Action Plan.



The sum of all identified resources allocated for implementation projects is \$8,403,099

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I. CCMP Implementation

Implementation of the Corpus Christi Bay National Estuary Program CCMP – The Coastal Bend Bays Plan – was initiated September 1998 with the adoption of the FY99 Work Plan. As the Program nears the end of its third post-CCMP year, there are 55 implementation projects underway. These are characterized by outstanding fiscal support, cooperation and coordination with Program partners. Over 30 organizations have contributed either matching funds or in-kind contributions to support the development of innovative solutions for the environmental issues identified in the CCMP.

This cooperation is a tribute to the intensive consensus-based planning process. Clearly this level of support would not be possible if the CCMP did not represent the environmental issues identified by regional stakeholders.

This section describes progress implementing CCMP actions, stakeholder implementation activities and mechanisms for changing CCMP priorities. The report period for this Implementation Review is from September 1998 until May 2001. Of the 50 CCMP actions, 47 are being implemented and of these, 41 are CBBEP managed projects. This section summarizes implementation efforts including Program projects, staff activities and identified implementing partner activities.

Since approval of the CCMP, the Corpus Christi Bay National Estuary Program has transitioned in both name and administrative structure. It is now known as the Coastal Bend Bays & Estuaries Program Inc. and has reorganized as a 501 (c)(3) nonprofit organization. During the 18-month transition many administrative challenges existed which have since been overcome. As a result, the Program has been able to increase the scope and breadth of projects each year since implementation (see Table I). For example, the number of projects and project funds nearly tripled from FY99 to FY01. Therefore it was decided to expand the Implementation Review Report period to include activities in the FY99, FY00 and FY01 Work Plans. This will provide a better representation of the Program's progress, and its strengths and weaknesses especially in light of transition challenges faced early in the report period.

a. Progress Implementing CCMP Actions

The CCMP contains a total of 50 actions, each included in the plan as a ‘priority action’ (see Subsection c. below). They are organized into 11 Action Plans:

- Bay Tourism and Recreation
- Bay Debris
- Public Health
- Shoreline Management
- Maritime Commerce
- Dredging
- Habitat and Living Resources
- Water and Sediment Quality
- Nonpoint Source Management
- Freshwater Resources
- Public Education and Outreach

The CBBEP and its partners are pleased to report significant progress implementing CCMP actions. The following implementation summary (see page 12) is organized by CCMP Chapter headings including Human Uses, Maritime Commerce and Dredging, Habitat and Living Resources, Water and Sediment Quality, Freshwater Resources, and Public Education and Outreach. Each section begins with a summary which consists of a chapter report card, a map of CCMP projects and financial summary charts.

This implementation summary and chapter report cards use the following terms.

CCMP Primary Project(s): Identifies the primary CCMP action addressed by the listed projects.

CCMP Additional Project(s): Identifies additional CCMP actions addressed by the listed projects.

Actions with Programmatic Progress: Numerical account of CCMP actions with programmatic progress resulting from CCMP Primary Projects, CCMP Additional Projects, staff or implementation partner activities. This correctly results in reporting programmatic progress on multiple actions from individual CBBEP projects.

Action-Specific Environmental Progress: Reports the localized environmental benefit directly attributed to “CCMP Primary Projects” i.e. this is not double reported on other chapter summaries.

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

Partner Projects: Known activities conducted by other organizations with or without CBBEP participation.

Local Funds: Annually scheduled contributions for CBBEP operations and CCMP project support.

TNRCC Funds: Annually scheduled contributions for CBBEP operations and CCMP project support.

Total Program Resources: Sum of expenditures from Program accounts for implementation projects.

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

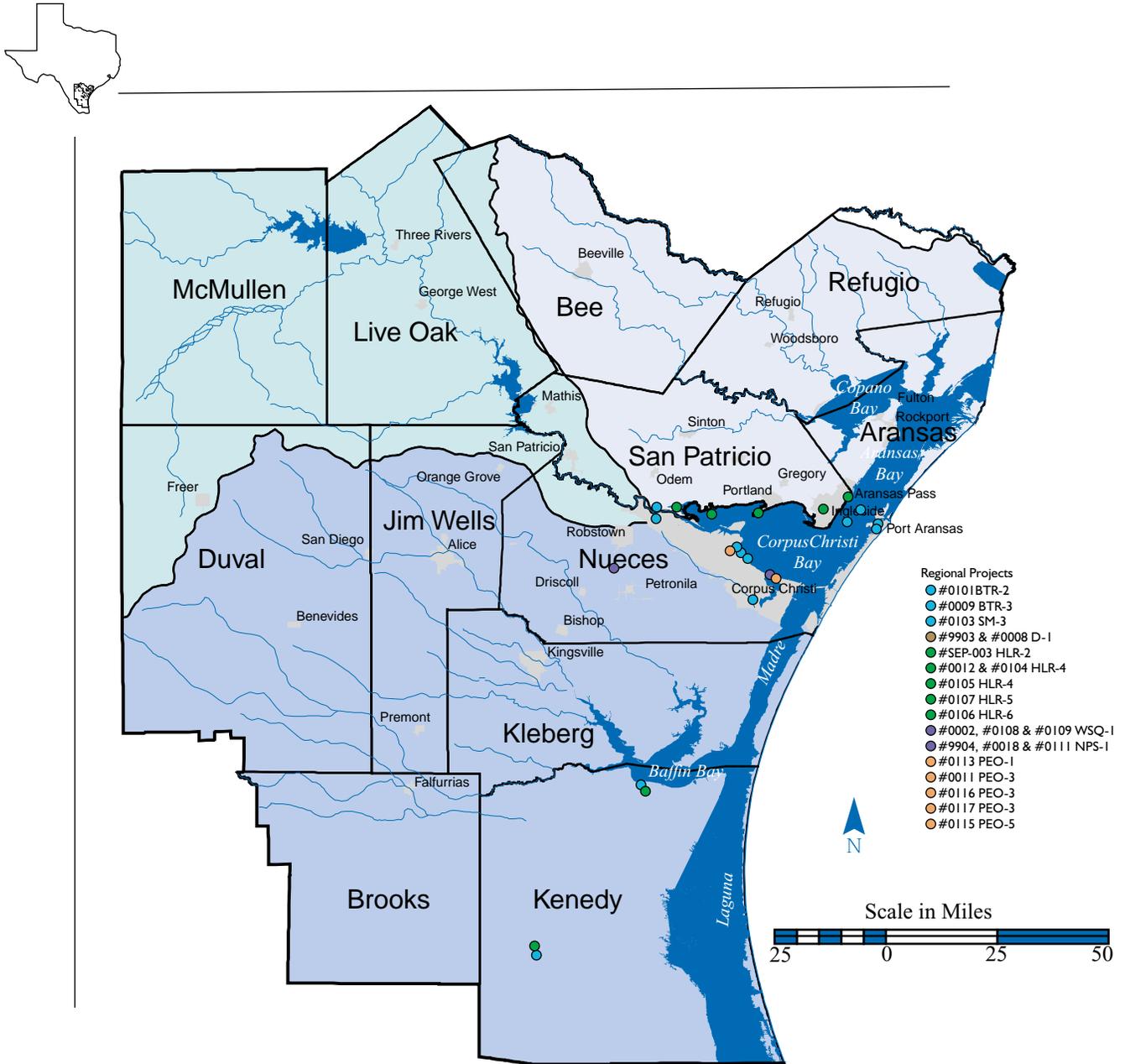
Match: Support for CCMP implementation actions from identified partners in dollars. These may be Program or non-Program contributions.

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

The implementation summary and report card was compiled from various sources including CBBEP staff, existing program documents and interviews with implementation partners. The CBBEP Regional Monitoring Plan (see attachment 3) provided the environmental and programmatic measures. Project descriptions and partners were gathered from the CBBEP Work Plans (see attachments 4 & 5) and the Implementation Summary Report – January 2001 (see attachment 6). Fiscal information was collected from the CBBEP Project Budget Report (see attachment 7) and Budget Summary Report (see attachment 8), CBBEP Contractors Report (see attachment 9) and interviews with Project Managers.

The CCMP lists 113 potential implementing entities. A comprehensive review of each organization's progress is beyond the scope of this report. Therefore, the approach here is to highlight partner activities that include Program staff participation or that are highly visible.

Figure 6. CCMP implementation action map.



human uses report card



Number of CCMP Actions: 11
Actions with Programmatic Progress: 10
Number of CCMP Primary Projects: 19
Action-Specific Environmental Progress: 3,900 acres
EPA §320 Funds: \$448,866
Leveraged Funds: \$996,066

Figure 6. Human Uses CCMP action locator.

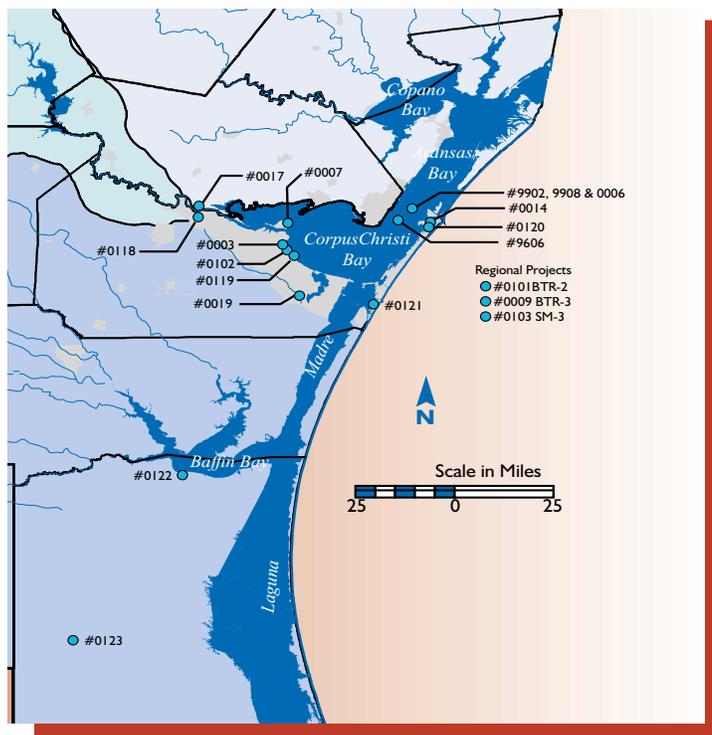


Figure 7. EPA §320 and leveraged funds for Human Uses Chapter.

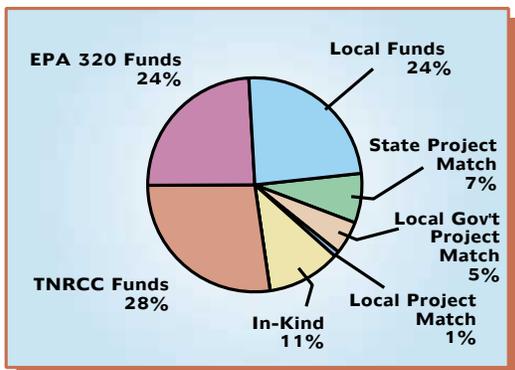
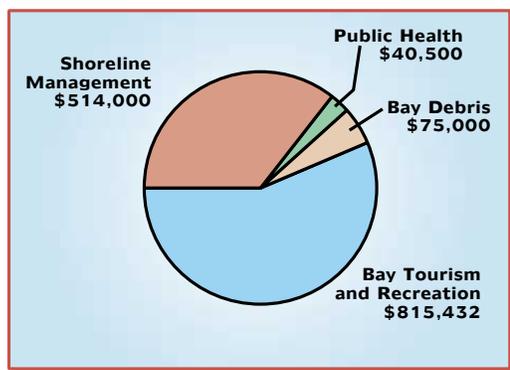
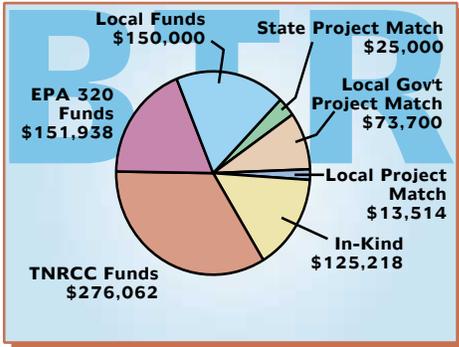


Figure 8. Human Uses Chapter resource allocation.



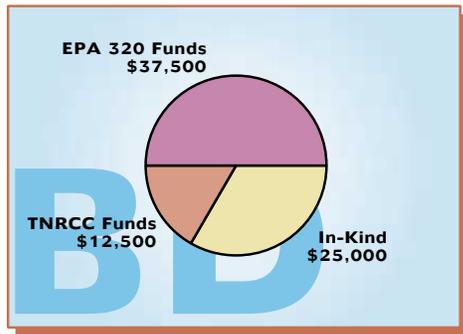
Human Uses

Figure 9. EPA §320 and leveraged funds for the Bay Tourism and Recreation (BTR) Action Plan.



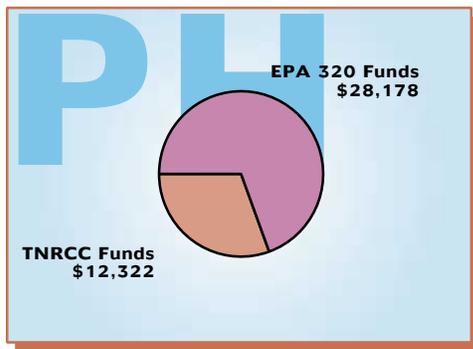
Number of CCMP Actions: 4
Actions with Programmatic Progress: 4
Number of CCMP Primary Projects: 12
Action-Specific Environmental Progress: 3,860 acres
EPA §320 Funds: \$151,938
Leveraged Funds: \$663,494

Figure 10. EPA §320 and leveraged funds for the Bay Debris (BD) Action Plan.



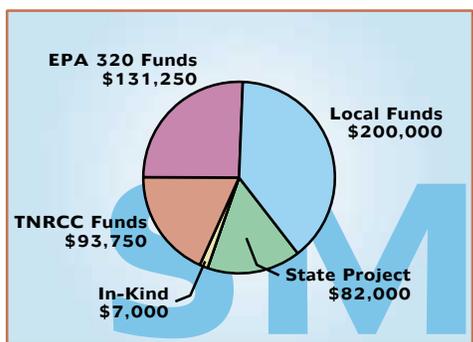
Number of CCMP Actions: 1
Actions with Programmatic Progress: 1
Number of CCMP Primary Projects: 1
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$37,500
Leveraged Funds: \$37,500

Figure 11. EPA §320 and leveraged funds for the Public Health (PH) Action Plan.



Number of CCMP Actions: 3
Actions with Programmatic Progress: 2
Number of CCMP Primary Projects: 1
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$28,178
Leveraged Funds: \$12,322

Figure 12. EPA §320 and leveraged funds for the Shoreline Management (SM) Action Plan.



Number of CCMP Actions: 3
Actions with Programmatic Progress: 3
Number of CCMP Primary Projects: 5
Action-Specific Environmental Progress: 40 acres
EPA §320 Funds: \$131,250
Leveraged Funds: \$282,750

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

- Establishment of a Friends of the Bays program
- Number of “Friends of the Bay” logos displayed and by what type of business
- Number and distribution of promotional or educational brochures with themes of natural resource protection or ecotourism or both
- Number of people that cite environmental resources/ ecotourism as a reason for visiting an establishment or the area
- Number of businesses that cite environmental resources/ ecotourism as a reason for visiting their establishment or area
- Completeness, maintenance, and accessibility of bay-wide recreational uses and events database
- Number of times the bay-wide recreational uses and events database web site is accessed
- Number of events that have been developed using Friends of the Bay ecotourism themes

Programmatic Progress:

- Three CBBEP projects are underway which further the programmatic progress of this action

CCMP Primary Project(s):

- #0014 – Ecotourism Strategic Plan and Support Materials
- #0101 – Ecotourism Management and Stewardship Promotion Project

CCMP Additional Project(s):

- #0115 (partial) – Various Public Education and Outreach Programs (Friends of the Bay Program)

CBBEP Project	# 0014 - ECOTOURISM STRATEGIC PLAN AND SUPPORT MATERIALS		
	Partners:	City of Corpus Christi and TAMU-CC Center for Ecotourism, and City of Port Aransas and Shiner, Moseley and Associates	
	Description:	TAMU-CC Center for Ecotourism is compiling a summary report of regional nature tourism sites to be used in the promotion of ecotourism. Shiner, Moseley and Associates is developing a “model” document using the City of Port Aransas as the example to provide visitors to Port Aransas with well planned “day trips” designed to take advantage of the natural resources of the area.	
	Project Status:	Project is approximately 60% complete and should be completed by 8/31/01. The Project Manager is Kendal Keyes.	
	Resources:	TNRCC Funds	\$40,000
	Total Program Resources		\$40,000
	In-kind - Texas A&M Engineering Extension Service	\$1,218	
	Total Project Resources		\$41,218

CBBEP 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:	Project is approximately 60% complete and should be completed by 8/31/01. The Project Manager is Kendal Keyes.												
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Local Sponsors</td> <td style="width: 20%; text-align: right;">\$75,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td style="border-top: 1px solid black;"></td> <td style="text-align: right;">\$75,000</td> </tr> <tr> <td>In-kind - City of Corpus Christi</td> <td style="text-align: right;">\$14,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td style="border-top: 1px solid black;"></td> <td style="text-align: right;">\$89,000</td> </tr> </table>	Local Sponsors	\$75,000		Total Program Resources		\$75,000	In-kind - City of Corpus Christi	\$14,000		Total Project Resources		\$89,000
Local Sponsors	\$75,000												
Total Program Resources		\$75,000											
In-kind - City of Corpus Christi	\$14,000												
Total Project Resources		\$89,000											

BTR-2 **Provide for the appropriate number of improved, well-managed public access sites.**

- | | |
|---------------------------------|--|
| Environmental Measures: | <ul style="list-style-type: none"> • Type and acres of habitat • Debris, area denuded of vegetation, tire-tracks, foot-paths, trash, and incidents of oil and gas slicks |
| Environmental Progress: | <ul style="list-style-type: none"> • Two acres of urban beach access acquired and protected (#0119) • 10 acres of marsh habitat protected through managed access (#0121) • Three acres of eroded wetland habitat restored (#0007) • 15 acres of emergent marsh planted to protect public park shoreline (#0122) • 37 acres of wetlands restored through managed access (#0017) • 20 acres of freshwater wetland restored through managed access (#0120) |
| Programmatic Measures: | <ul style="list-style-type: none"> • Number and location of public access sites • Number of public access sites with well managed facilities and parking • Number of people using public access sites for recreation and other usage • Number of public access sites upgraded from poorly managed to well managed • Amount of funds and number of full time equivalents spent by local governments on public access sites • Number of site-specific public access improvement implementation strategies developed and implemented • Number of informal alliances formed with local businesses based on stewardship of publicly-owned access sites |
| Programmatic Progress: | <ul style="list-style-type: none"> • Eight CBBEP projects are underway which further the programmatic progress of this action • All eight CBBEP projects below include improved and/or new public access to natural areas • An additional seven CBBEP related projects are underway which overlap with BTR-2 objectives and further the programmatic progress of this action |
| CCMP Primary 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 • #0118 – Hazel Bazemore Park Habitat Protection and Public Access Enhancement Project • #0119 – Ropes 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 • #0123 – Sarita Wetlands Habitat Enhancement and Public Access Improvement Project |

CCMP
Additional
Project(s):

- #0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project
- #0103 – Support Development of the Coastal Bend Land Trust
- #0015 – Water Exchange Improvements and Wetland Enhancements in the Aransas Pass Nature Park
- #9902, #9908, & #0006 – City of Aransas Pass Shoreline Master Plan
- #0124 – Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project

CBEP Project

#0007 – CORPUS CHRISTI BEACH SHORELINE STABILIZATION AND HABITAT CREATION PROJECT																
Partners:	City of Corpus Christi															
Description:	The northern end of Corpus Christi Beach has experienced significant erosion resulting in the loss of public beach and emergent marsh habitat. This project will establish a vegetated wetland marsh and rock groin to reduce or eliminate future erosion. Not only will public infrastructure be protected from erosion, the creation of the emergent marsh will provide excellent wildlife habitat in an area easily viewed by the public.															
Project Status:	Project is approximately 5% complete and should be completed by 1/1/02. The Project Manager is Kendal Keyes.															
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$21,250</td> <td style="width: 20%;"></td> </tr> <tr> <td>USEPA – §320 Funds</td> <td style="text-align: right;">\$63,750</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Program Resources</td> <td style="border-top: 1px solid black; text-align: right;">\$85,000</td> <td></td> </tr> <tr> <td>In-kind - City of Corpus Christi</td> <td style="text-align: right;">\$35,000</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Project Resources</td> <td style="border-top: 1px solid black; border-bottom: 3px double black; text-align: right;">\$120,000</td> <td></td> </tr> </table>	TNRCC Funds	\$21,250		USEPA – §320 Funds	\$63,750		Total Program Resources	\$85,000		In-kind - City of Corpus Christi	\$35,000		Total Project Resources	\$120,000	
TNRCC Funds	\$21,250															
USEPA – §320 Funds	\$63,750															
Total Program Resources	\$85,000															
In-kind - City of Corpus Christi	\$35,000															
Total Project Resources	\$120,000															

CBEP Project

#0017 – POLLYWOG POND BIRD WATCHING AREAS PUBLIC ACCESS IMPROVEMENTS																
Partners:	City of Corpus Christi															
Description:	Pollywog Pond is located on property owned by the City of Corpus Christi and is part of their water treatment facility. In response to public input the City of Corpus Christi has decided to open up this “unofficial” public access site for public use. Previous use by the public has resulted in the degradation of some of the habitat and access into unsafe areas. This project will develop a site management plan, to protect the habitat, and provide for the construction of boardwalks and observation platforms in areas that may be hazardous.															
Project Status:	Project is approximately 75% complete and should be completed by 8/31/01. The Project Manager is Terri Nicolau.															
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$12,500</td> <td style="width: 20%;"></td> </tr> <tr> <td>USEPA – §320 Funds</td> <td style="text-align: right;">\$37,500</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Program Resources</td> <td style="border-top: 1px solid black; text-align: right;">\$50,000</td> <td></td> </tr> <tr> <td>In-kind - City of Corpus Christi</td> <td style="text-align: right;">\$25,000</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Project Resources</td> <td style="border-top: 1px solid black; border-bottom: 3px double black; text-align: right;">\$75,000</td> <td></td> </tr> </table>	TNRCC 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	
TNRCC 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															

CBBEP 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:	Project is approximately 10% complete and should be completed by 3/30/02. The Project Manager is Kendal Keyes.	
	Resources:	TNRCC Funds	\$50,000
	Total Program Resources		\$50,000
	In-kind - Nueces County	\$50,000	
	Total Project Resources		\$100,000

CBBEP Project	#0119 – ROPES PARK HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT		
	Partners:	City of Corpus Christi	
	Description:	Located on Ocean Drive in Corpus Christi, Ropes Park is ideally located to provide urban residents with access to Corpus Christi Bay. While primarily providing for the acquisition of adjacent land, this project will also protect shoreline habitat and display educational materials regarding the bay system.	
	Project Status:	Project is approximately 5% complete and should be completed by 8/31/01. The Project Manager is Kendal Keyes.	
	Resources:	Local Sponsors	\$50,000
	Total Program Resources		\$50,000
	Total Project Resources		\$50,000

CBBEP 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:	Project is approximately 20% complete and should be completed by 8/31/01. The Project Manager is Terri Nicolau.	
	Resources:	TNRCC Funds	\$35,000
	Total Program Resources		\$35,000
	Match – City of Port Aransas	\$73,700	
	Total Project Resources		\$108,700

CBEP Project

# 0121 - MOLLIE BEATTIE HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT													
Partners:	Texas A&M University – Corpus Christi Center for Coastal Studies and the 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:	Project is approximately 50% complete and should be completed by 8/31/01. The Project Manager is Kendal Keyes.												
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$50,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td>In-kind - Center for Coastal Studies</td> <td style="text-align: right;">\$13,514</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$63,514</td> </tr> </table>	TNRCC Funds	\$50,000		Total Program Resources		\$50,000	In-kind - Center for Coastal Studies	\$13,514		Total Project Resources		\$63,514
TNRCC Funds	\$50,000												
Total Program Resources		\$50,000											
In-kind - Center for Coastal Studies	\$13,514												
Total Project Resources		\$63,514											

CBEP Project

#0122 – KAUFER-HUBERT MEMORIAL PARK HABITAT PROTECTION AND PUBLIC ACCESS ENHANCEMENT PROJECT										
Partners:	TAMU-Kingsville and 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:	Project is approximately 10% complete and should be completed by 1/1/02. The Project Manager is Leo Trevino.									
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$50,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$50,000</td> </tr> </table>	TNRCC Funds	\$50,000		Total Program Resources		\$50,000	Total Project Resources		\$50,000
TNRCC Funds	\$50,000									
Total Program Resources		\$50,000								
Total Project Resources		\$50,000								

CBEP Project

#0123 – SARITA WETLANDS HABITAT ENHANCEMENT AND PUBLIC ACCESS IMPROVEMENT PROJECT										
Partners:	Texas A&M University and Kenedy Memorial Foundation									
Description:	Public access to freshwater wetlands in the Sarita area is limited due to the dry nature of the area and land ownership patterns. These freshwater wetlands in Sarita are easily accessible by car and they host a tremendous diversity of wetland plants and animals. Project partners will be providing for “appropriate” public access to these wetlands by providing designated parking areas, trail improvements and the construction of an observation platform. An educational kiosk will be constructed to provide information on the ecological value of these isolated freshwater wetlands and the role they play for animals that also utilize the nearby Laguna Madre.									
Project Status:	Project has been delayed to find an alternate site. The Project Manager is Leo Trevino.									
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Local Sponsors</td> <td style="width: 20%; text-align: right;">\$25,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$25,000</td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$25,000</td> </tr> </table>	Local Sponsors	\$25,000		Total Program Resources		\$25,000	Total Project Resources		\$25,000
Local Sponsors	\$25,000									
Total Program Resources		\$25,000								
Total Project Resources		\$25,000								

BTR-3

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

Environmental Measures:

- Population size and reproduction statistics for bird species of concern related to recreational usage
- Number of nests abandoned due to human intrusion, whole nesting islands/colonies abandoned due to human intrusion
- Amount of propeller scarring in seagrass beds – e.g., area of seagrass beds scarred and/or lost, length of scars, indices of habitat fragmentation due to prop scarring
- Recreational boating impacts – amount of litter, parking lot runoff, incidence of oil and gas slicks (normalized for traffic) – improved vs. pre-improvement conditions, fish and benthic communities in marinas, sediment and water quality in marinas, fish/shellfish tissue analysis at marinas
- Standing crops vs. fishing pressure
- Number of pump-out stations and trash receptacles at marinas and waterside subdivisions

Environmental Progress:

- 3,773 acres of seagrass protected in “no-prop” zones

Programmatic Measures:

- Number of consensus-based management plans developed and implemented for whooping crane refuge
- Development and implementation of the Texas Seagrass Conservation Plan
- Number of management plans for public use of bird rookery islands developed and implemented
- Number of site-specific marina BMPs developed and implemented
- Assessments of marine operations
- The changes in volume of sewage collected at pump-out stations over time
- Number of trash receptacles and frequency of emptying at marinas
- Availability of waste handling and disposal training materials, number of training sessions completed
- Development and implementation of Floating cabin guidelines
- Number and type of enforcement actions
- Development and implementation of catch and release program
- Number of catch and release tournaments

Programmatic Progress:

- Two CBBEP projects are underway which further the programmatic progress of this action
- Texas Seagrass Conservation Plan being implemented and a Seagrass Monitoring Plan is under development
- The CBBEP Seagrass Protection and Restoration Project was part of a comprehensive stakeholder-driven effort to developing innovative management strategies for seagrass protection
- An additional three CBBEP related projects are underway which overlap with BTR-3 objectives and further the programmatic progress of this action

CCMP Primary Project(s):

- #9906 & #0009 – Seagrass Protection and Restoration Project

**CCMP
Additional
Project(s):**

- #0017 – Pollywog Pond Bird Watching Areas Public Access Improvements
- #9902, #9908, & #0006 – City of Aransas Pass Shoreline Master Plan

Partner Projects:

- CBBEP Project Manager Terri Nicolau is a member of the Texas Parks and Wildlife Department Seagrass Task Force that works on seagrass conservation and monitoring issues state-wide
- CBBEP Project Manager Terri Nicolau participates on the Gulf of Mexico Program Seagrass Monitoring Workgroup that works on monitoring, status and trends of seagrass Gulf-wide
- CBBEP Project Manager Terri Nicolau participates on the Texas Sea Grant sponsored Texas Marina Advisory Board which has initiated the Texas Clean Marina Program to recognize environmentally friendly marinas state-wide

CBBEP Project

#9906 & #0009 – SEAGRASS PROTECTION AND RESTORATION PROJECT																
Partners:	TAMU-CC Center for Coastal Studies and Texas Parks and Wildlife Department															
Description:	<p>#9906 Seagrass Propeller Scarring Education and Demonstration Project This project is an effort to implement an boater education campaign designed to increase awareness of potential propeller impacts to seagrass beds in shallow bay areas and advocate responsible boat handling in shallow waters. A Bay User Guide for Redfish Bay was produced with input from marine recreational personnel, resource management and enforcement agencies, and other interested stakeholders. The User Guide explains the importance of seagrass in the bay system and provides a detailed map of the bay to assist boaters in preventing prop-scarring by avoiding shallow bay areas. In addition, the project provided seed money to design and implement a pilot demonstration project involving the use of educational signage at boat ramps and color coded PVC pipe located within shallow areas to warn boaters away from seagrass beds.</p> <p>#0009 Seagrass Protection and Restoration Project This project is a follow-up to Project #9906 Seagrass Propeller Scarring Education and Demonstration, which focused on propeller damage in Redfish Bay. The Bay User Guide was updated and expanded and signage has been designed for use at boat ramps in the Laguna Madre. Funding partners include TPWD, USFWS, UTMSI, and TAMU-CC.</p>															
Project Status:	Project is approximately 95% complete and should be completed by 6/15/01. The Project Manager is Terri Nicolau.															
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$17,312</td> <td style="width: 20%;"></td> </tr> <tr> <td>USEPA – \$320 Funds</td> <td style="text-align: right;">\$50,688</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$68,000</td> </tr> <tr> <td>Match – Texas Parks & Wildlife</td> <td style="text-align: right;">\$25,000</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$93,000</td> </tr> </table>	TNRCC Funds	\$17,312		USEPA – \$320 Funds	\$50,688		Total Program Resources		\$68,000	Match – Texas Parks & Wildlife	\$25,000		Total Project Resources		\$93,000
TNRCC Funds	\$17,312															
USEPA – \$320 Funds	\$50,688															
Total Program Resources		\$68,000														
Match – Texas Parks & Wildlife	\$25,000															
Total Project Resources		\$93,000														

BTR-4

Enhance the recreational fishery through artificial reefs or restored natural reefs.

Environmental Measures:

- Number, length or aerial extent of reefs
- Changes in fish populations with and without artificial reefs

Environmental Progress:

- CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.

Programmatic Measures:

- Development and implementation of an artificial reef master plan
- Development of an artificial reef monitoring plan to show positive progress and reduction of negative impacts – development and implementation
- Number of reefs (both natural and artificial)
- Development of studies related to potential for recreational fishery enhancement

Programmatic Progress:

- The original intent of CBBEP #SEP 001 provided for the creation of deep-water substrate reefs in addition to rookery habitat. However, it was determined that a significantly larger amount of rookery habitat could be constructed if the project was completed in shallow water – resulting in shallow rather than deep water reef habitat.

CCMP Primary Project(s):

- Program efforts were focused on other implementation projects during this report period

CCMP Additional Project(s):

- #SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird Rookery Islands In Nueces and Corpus Christi Bays – See Programmatic Progress above
- It is anticipated that FY02 Work Plan will include a project to directly address this CCMP action

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

- Environmental Measures:**
- Weight and volume of debris kept out of the bay system
 - Bay debris monitoring at key locations – e.g., vicinity of stormwater outfalls
- Programmatic Measures:**
- Development and implementation of regional bay debris management procedures
 - Development and implementation of regional bay debris monitoring program (include monitoring at stormwater outfalls)
 - Implementation of improved solid waste management procedures by rural, urban, and unincorporated areas
 - Establishment of partnership with National Marine Debris Monitoring Program
 - Number of communities cooperating in the regional solid waste monitoring program
 - Number of education and enforcement training programs completed
 - Changes over time in the number of citations written for solid waste disposal infractions
 - Compilation of public assistance programs by municipality
 - Number of voluntary bay cleanups
 - Number of boat ramp owners providing solid waste \trash disposal facilities.
 - Number of pilot programs deployed
 - Incorporation of pilot program findings into waste management procedures
 - Number of debris removal activities by municipality
- Programmatic Progress:**
- One CBBEP project is underway to further the programmatic progress of this action
 - An additional four CBBEP related projects are underway which overlap with BD-1 objectives and further the programmatic progress of this action
- CCMP Primary Project(s):**
- #0102 – Bay Debris Removal Demonstration Project – End of Pipe Collection System
- CCMP Additional 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
 - It is anticipated that FY02 will include a bay debris project in partnership with the Coast Conservation Association

#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:	Project is approximately 10% complete and should be completed by 1/1/02. The Project Manager is Leo Trevino.															
Resources:	<table border="0" style="width: 100%;"> <tr> <td>TNRCC Funds</td> <td style="text-align: right;">\$12,500</td> <td></td> </tr> <tr> <td>USEPA – §320 Funds</td> <td style="text-align: right;">\$37,500</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td> In-kind – City of Corpus Christi</td> <td style="text-align: right;"> \$25,000</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$75,000</td> </tr> </table>	TNRCC 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
TNRCC 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														

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

- Programmatic Measures:**
 - Establishment of the contact recreation workgroup
 - Development of a contact recreation advisory plan
 - Development and implementation of recreational waters monitoring program
 - Review of existing data quality indicators
 - Development and testing of a predictive model
 - Development and implementation of communication strategies for public health threats

- Programmatic Progress:**
 - One CBBEP project is underway to further the programmatic progress of this action
 - The CBBEP project included a review of two water quality indicators and includes preliminary information for development of a predictive model
 - An additional five CBBEP related projects are underway which overlap with PH-1 objectives and further the programmatic progress of this action

- CCMP Primary Project(s):**
 - #0003 Regional Approach to Ensure Recreational Water Quality (Project Managed by TNRCC)

- CCMP Additional Project(s):**
 - #9904, #0018, & #0111 Nonpoint Source Pollution Prevention Assistance Project
 - #9907 & #0112 Rehabilitation of Failed OSSF in Priority Areas/ Assistance to Local Governments

- Partner Projects:**
 - The Texas General Land Office has established a Beach Watch water quality monitoring program on Gulf beaches

CBBEP Project	#0003 REGIONAL APPROACH TO ENSURE RECREATIONAL WATER QUALITY (PROJECT MANAGED BY TNRCC)			
	Partners:	TNRCC and TAMU-CC		
	Description:	This project established a bacteriological sampling program at recreational use sites around the bay system. The goal of this project was to provide public health officials with data regarding bacteria counts in bay waters during both dry and wet weather conditions.		
	Project Status:	Project is approximately 95% complete and should be completed by 8/31/01. The TNRCC Project Manager is Jeff Foster (TNRCC).		
	Resources:	TNRCC Funds	\$12,322	
		USEPA – §320 Funds	\$28,178	
	Total Program Resources	\$40,500		
	Total Project Resources	\$40,500		

PH-2

Conduct health risk assessments associated with consumption of seafood in suspect areas.

Environmental Measures:

- Changes in the area of shellfish bed closures
- Monitor pathogens such as fecal coliform, E. coli, and Enterococcus
- Number of reported illnesses due to seafood consumption
- Area of shellfish growing waters classified as approved for harvest, conditionally approved, or polluted
- Area of shellfish growing waters closed due to toxic contaminants
- Contaminant concentration of seafood over time (NOAA Mussel Watch list parameters) PCBs, metals, pesticides
- Levels of toxic contaminants found in targeted local seafood

Environmental Progress:

- CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.

Programmatic Measures:

- Completion of risk assessment study for selected areas
- Release of results of risk assessments to the public (e.g., through program website, or a link to the Texas Department of Health website)
- Implementation of source identifications and controls if unacceptable risk found
- Time from documentation of known risk to institutional control
- Number of shellfish bed closures
- Completion of review of shellfish harvest area classification processes
- Implementation of new shellfish harvest area classification processes
- Documentation of the reevaluation of permanently closed shellfish areas for reclassification
- Number of fish consumption advisories
- Number of fish advisories due to toxic contaminants

Programmatic Progress:

- This action is being addressed in part by the Texas Department of Health and other Program partners

CCMP Primary Project(s):

- Program efforts were focused on other implementation projects during this report period

CCMP Additional Project(s):

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

PH-3**Develop and Implement a method to collect epidemiological and injury data from regional and local health care providers.****Programmatic Measures:**

- Number of regional health care providers participating in the collection of bay-related epidemiological and injury information
- Development and implementation of epidemiological and injury data collection and management plan
- Implementation of public health database and reporting program
- Inclusion of the TDH/CDC database results into the regional water quality management strategy

Programmatic Progress:

- CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.

CCMP Primary Project(s):

- Program efforts were focused on other implementation projects during this report period

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

Environmental Measures:

- Area or percent of shoreline that is 1) hardened, protected by seawalls, solid structures, riprap, and piers; or 2) natural
- Type and acres of existing habitat
- Shoreline erosion/accretion
- Vulnerability to sea level rise, wave energy, and storm surge
- Vegetative species composition, diversity and percent cover

Environmental Progress:

- Environmental progress for this action reported in SM2

Programmatic Measures:

- Development of bibliography of coastal characterization reports
- Completion of periodic shoreline inventory with ground truthing as necessary (including percent of shoreline that is hardened, developed, open, natural, mitigated, or filled)
- Development of site improvement plans
- Ranking of site improvement plans for follow-up action.
- Publication of site improvement plans
- Updating of site improvement plans every 10 years
- Funding and completion of site implementation plans

Programmatic Progress:

- 13 CBBEP related projects are underway which overlap with SM-1 objectives and further the programmatic progress of this action

CCMP Primary Project(s):

- See CCMP additional projects below

CCMP Additional Project(s):

- #0007 – Corpus Christi Beach Shoreline Stabilization and Habitat Creation Project
- #0119 – Ropes Park Habitat Protection and Public Access Enhancement Project
- #9902, #9908, & #0006 – City of Aransas Pass Shoreline Master Plan
- #SEP 002 – Habitat Acquisition and protection in San Patricio and Nueces Counties
- #SEP 003 Bay Shoreline Erosion Protection and Habitat Enhancement Project
- #0013 – Sunset Lake Water Circulation 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 Project

SM-2**Assist local governments with shoreline management issues.**

Environmental Measures:	<ul style="list-style-type: none"> Type and acres of habitat
Environmental Progress:	<ul style="list-style-type: none"> 10 acres of shoreline wetlands protected through access planning and vehicle restrictions (#9902, #9908, and #0006)
Programmatic Measures:	<ul style="list-style-type: none"> Completion of workshop to communicate issues and guidance Completion of Shoreline Management Workshop Creation and distribution of a user-friendly "Guidelines for Shoreline Management for Local Governments" Development of a clearinghouse for shoreline management and technologies and planning framework Completion of workshops to present guideline document and to communicate financial assistance program and other resources Development of an on-going technical assistance program Number of work groups and special meetings to discuss crosscutting habitat issues
Programmatic Progress:	<ul style="list-style-type: none"> Three projects are underway which further the programmatic progress of this action An additional ten CBBEP related projects are underway which overlap with SM-2 objectives and further the programmatic progress of this action
CCMP Primary Project(s):	<ul style="list-style-type: none"> #9902, #9908, & #0006 – City of Aransas Pass Shoreline Master Plan
CCMP Additional Project(s):	<ul style="list-style-type: none"> #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 #0103 – Support Development of the Coastal Bend Land Trust #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 #0121 – Mollie Beattie Habitat Protection and Public Access Project
Partner Projects:	<ul style="list-style-type: none"> CBBEP Project Manager Terri Nicolau represents environmental interests on the City of Corpus Christi's Watershore Advisory Committee which meets monthly to review shoreline activities

CBEP Project

#9902, #9908, & #0006 – ARANSAS PASS REGIONAL SHORELINE MASTER PLAN		
Partners:	City of Aransas Pass	
Description:	This project is the combination of three separate projects all intended to accomplish overlapping objectives. The goal of these projects is to provide for well-managed public access along the shores of the Aransas Causeway and other shoreline areas in Aransas Pass. This project encompasses the development of a land-use master plan for all shorelines in Aransas Pass, enhancement of existing public access areas, and the acquisition of new public access sites within the constraints of the project budget. The project involves considerable public input and participation and will outline the strategy for future public access and habitat protection projects in the area.	
Project Status:	Project is approximately 75% complete and should be completed by 8/31/01. The Project Manager is Kendal Keyes.	
Resources:	TNRCC Funds	\$31,250
	USEPA – §320 Funds	\$93,750
	Total Program Resources	\$125,000
	In-kind – City of Aransas Pass	\$7,000
	Total Project Resources	\$132,000

SM-3**Establish a locally administered land trust to augment public access, sensitive habitat protection, and open space preservation.**

Environmental Measures:	<ul style="list-style-type: none"> Type and acres of habitat protected or restored
Environmental Progress:	<ul style="list-style-type: none"> 30 acres of brackish marsh protected through purchase and covenant for perpetual protection (#0019)
Programmatic Measures:	<ul style="list-style-type: none"> Creation of Land Trust Fund Communication of operating protocols Development of local government structure for administration of the Land Trust Fund Development of a plan to solicit public donations for the Land Trust Prioritization of identified areas
Programmatic Progress:	<ul style="list-style-type: none"> A regional land trust has been established – The Coastal Bend Land Trust - under the auspices of the Coastal Bend Bays Foundation The land trust has development marketing materials to support its activities Critical areas for protection have been identified Two CBBEP projects provide The Coastal Bend Land Trust with needed start-up resources and further the programmatic progress of this action
CCMP Primary Project(s):	<ul style="list-style-type: none"> #0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project #0103 – Support Development of the Coastal Bend Land Trust

CBBEP Project	#0019 – LAND TRUST DEVELOPMENT AND OSO BAY AND CREEK SHORELINE ACQUISITION PROJECT		
	Partners:	Coastal Bend Land Trust and the City of Corpus Christi	
	Description:	A two part project, the first part is focused on providing seed money to allow the Coastal Bend Land Trust the opportunity to grow and become more self-sufficient. The contract requires that certain specific administrative tasks be accomplished. The second part of the project provides funds for the acquisition of habitat along Oso Bay or Oso Creek in conjunction with the City of Corpus Christi’s Oso greenbelt project.	
	Project Status:	Project is approximately 95% complete and should be completed by 6/01/01. The Project Manager is Kendal Keyes.	
	Resources:	TNRCC Funds	\$12,500
	USEPA – \$320 Funds	\$37,500	
	Local Sponsors	\$100,000	
	Total Program Resources		\$150,000
	TNRCC SEP Funds	\$82,000	
	Total Project Resources		\$232,000

CBBEP Project	#0103 – SUPPORT DEVELOPMENT OF THE COASTAL BEND LAND TRUST		
	Partners:	Coastal Bend Land Trust and the City of Corpus Christi	
	Description:	This project is designed as a follow-up to project #0019 with a similar focus. 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 is scheduled to start once project #0019 is complete. The Project Manager is Kendal Keyes.	
	Resources:	TNRCC Funds	\$50,000
	Local	\$100,000	
	Total Program Resources		\$150,000
	Total Project Resources		\$150,000



maritime commerce & dredging report card

Number of CCMP Actions: 11
Actions with Programmatic Progress: 11
Number of CCMP Primary Projects: 2
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$48,750
Leveraged Funds: \$91,250

Figure 13. Maritime Commerce and Dredging CCMP action locator.

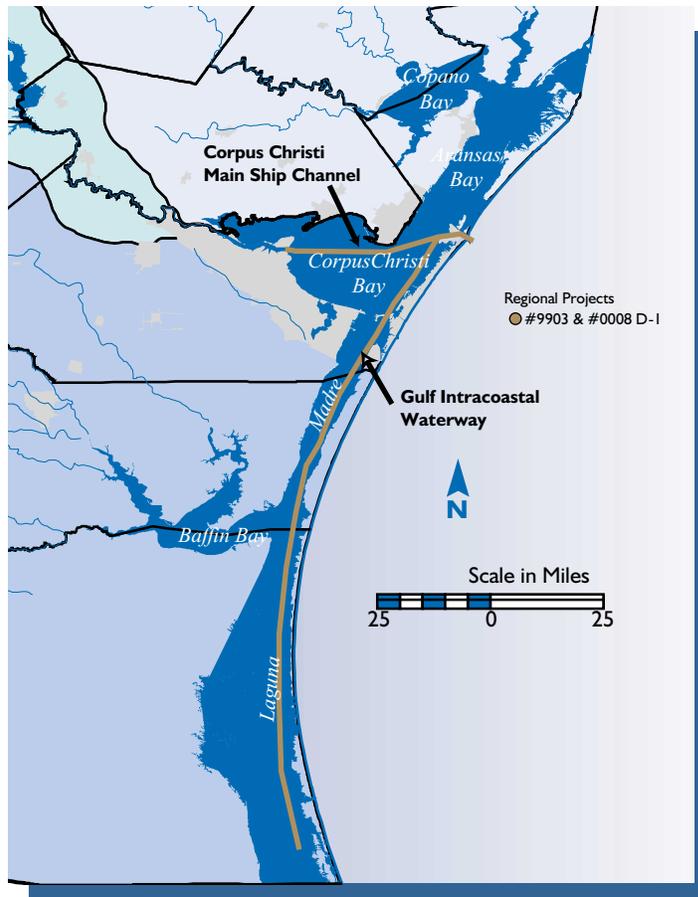
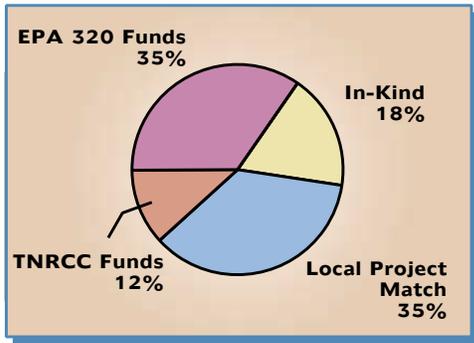
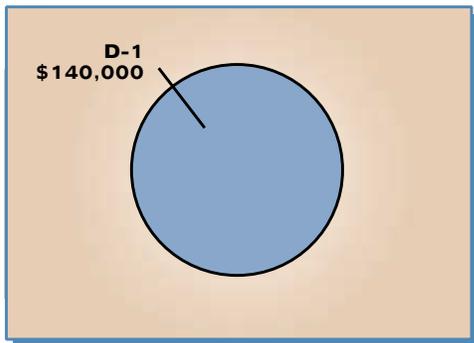


Figure 14. EPA §320 and leveraged funds for the Maritime Commerce and Dredging Chapter.



Summary of Program and non-Program resources allocated for the Maritime Commerce and Dredging Action Plans.

Figure 15. Maritime Commerce and Dredging resource allocation.



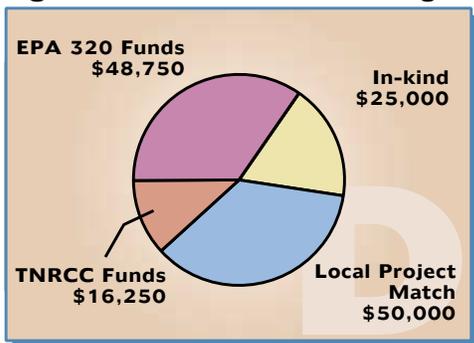
Summary of Program and non-Program resource allocation for Maritime Commerce and Dredging Actions.

Figure 16. EPA §320 and leveraged funds funds for Maritime Commerce.



Number of CCMP Actions: 8
Actions with Programmatic Progress: 8
Number of CCMP Primary Projects: 0
Action-Specific Environmental Progress: N/A
Base Funding: \$0
Leveraged Funds: \$0

Figure 17. EPA §320 and leveraged funds funds for Dredging.



Number of CCMP Actions: 3
Actions with Programmatic Progress: 3
Number of CCMP Primary Projects: 1
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$48,750
Leveraged Funds: \$91,250

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

Programmatic Measures:

- Congressional authorization for the barge shelf
- Completion of permitting and authorization process
- Construction of barge shelf – repositioning of buoys and dredging
- Frequency of marine collisions, groundings, and spills before and after construction of the barge shelf

Programmatic Progress:

- This feasibility and public comment phase of this project is being performed at this time

CCMP Primary Project(s):

- See CCMP additional and partner projects below

CCMP Additional Project(s):

- #9903 & #0008 – Beneficial Uses of Dredged Material

Partner Projects:

- CBBEP partners (Port of Corpus Christi Authority and U.S. 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
- CBBEP Project Manager 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.**

- Programmatic Measures:**
- Completion of evaluation of existing navigation ranges
 - Development of a priority list of navigation ranges
 - Development of range improvement plan
 - Number of range improvements completed
 - Frequency of marine collisions, groundings, and spills before and after implementation of range improvements, modifications to the navigational aids system, and any changes to the vessel operator training and continuing education requirements
 - Submission of information and plan to USGS
 - Fiscal commitments to fund improvements
- Programmatic Progress:**
- Improvements to Main Entrance Range include light intensity and power dependability
 - A new sector light was constructed on the Tule Lake Range
 - Additional range improvements are under advisement
- CCMP Primary Project(s):**
- It is recognized that CBBEP partners are best suited to further the objectives of this action, therefore; Program efforts were focused on other implementation projects during this report period
- Partner Projects:**
- CBBEP partners (Aransas-Corpus Christi Pilots, Port of Corpus Christi Authority and the U.S. Coast Guard) have made significant progress on this action with improvements to existing ranges, construction of a sector light and improved power dependability

MC-3

Modernize the vessel traffic system and aids to navigation.

Programmatic Measures:

- Increase in number and modifications of electronic hydrographic monitors
- Number of calls received by aids to navigation phone
- Survey of mariners on use of aids to navigation radio link (frequency, convenience, and effectiveness)
- Assessment of available technology for a vessel traffic system
- Development and implementation of a vessel traffic system
- Federal authorization of the vessel traffic system
- Frequency of marine collisions, groundings, and spills before and after implementation of range improvements, modifications to the navigational aids system, and any changes to the vessel operator training and continuing education requirements

Programmatic Progress:

- Three remote sea state meters were installed this report period capable of reporting wave height, period, and direction as well as weather conditions
- Improvements made to remote video system in harbor area
- New tide gauge installed at the Tule Lake Lift-Bridge
- New weather monitoring system at the Harbor Master's office
- Automatic Information System (AIS) for vessel position reporting is underway

CCMP Primary Project(s):

- It is recognized that CBBEP partners are best suited to further the objectives of this action, therefore; Program efforts were focused on other implementation projects during this report period

Partner Projects:

- 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

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

Programmatic Measures:

- Development of minimum standards for ship pilots
- Enforcement of minimum standards for ship pilots
- Development of a vessel operator training program
- Funding availability for educational programs
- Number and frequency of training programs and workshops
- Certification test results to quantify efficacy of training programs
- Documentation of compliance with no wake zones and other operating procedures
- Ratio of collisions and groundings to traffic volume

Programmatic Progress:

- Aransas-Corpus Christi Pilots have established minimum standards for member pilots and conduct self enforcement

CCMP Primary Project(s):

- It is recognized that CBBEP partners are best suited to further the objectives of this action, therefore; Program efforts were focused on other implementation projects during this report period

Partner Projects:

- CBBEP partners (Aransas-Corpus Christi Pilots) have adopted the pilot training schedule recommended by the American Pilots Association including mandatory Bridge Resource Management every three years. They are also scheduled for tractor tug training in advance of the arrival of new tug units.

MC-5

Maintain and improve regional oil spill response capability.

Programmatic Measures:

- Evaluation of high-risk areas completed every 5 years
- Completion of updated oil spill atlas and maps delineating high-risk areas
- Incorporation of changes in high-risk areas into contingency planning documents
- Exploration and evaluation of alternative spill response equipment and technologies
- Development of guidelines and recommendations for oil spill responders
- Inclusion of updated guidelines and new technologies in contingency plans
- Number and distribution of public outreach materials
- Number of public employees and leaders that participate in oil spill drills
- Frequency and adequacy of spill response drills
- Establishment of regional response team
- Development of an oil spill recovery database that includes cause of the accidental spill, response time of oil spill recovery teams to oil spills, response or remediation actions required, spill response and remediation time and effectiveness of containment measures, removal, and remediation
- Number of cooperative agreements set in place for coordination of oil spill response activities

Programmatic Progress:

- The evaluation and prioritization of resources is complete and incorporated into a new oil spill atlas
- The Contingency Plan now includes high risk areas
- The Contingency Plan is available to the public on the Internet
- The South Texas Coastal Zone Advisory Committee advertises public meetings every quarter and public involvement is encouraged
- Evaluation for alternative response technology is ongoing

CCMP Primary Project(s):

- It is recognized that CBBEP partners are best suited to further the objectives of this action, therefore; Program efforts were focused on other implementation projects during this report period

Partner Projects:

- CBBEP partners (Texas General Land Office, USCG Area Plan Committee, South Texas Coastal Zone Advisory Committee, and Texas Railroad Commission) have made significant progress on this action
- CBBEP supported the TAMU-CC National Spill Control School in efforts to obtain funding from the Texas Coastal Management Program to update and digitize the Corpus Christi Oil Spill Response Plan

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

- Programmatic Measures:**
- Development of HAZMAT contingency plan
 - Determination of content of HAZMAT spill response records
 - Collection of data for the HAZMAT spill response records
 - Number of public awareness materials published on the emergency plans
 - Number of cooperative agreements between agencies and private parties for HAZMAT response coordination
 - Number and severity of oil and hazardous material spills based on the oil spill database listed under MC-5
- Programmatic Progress:**
- Development of the HAZMAT Contingency Plan is ongoing
 - The TNRCC is initiating a HAZMAT strike team
- CCMP Primary Project(s):**
- It is recognized that CBBEP partners are best suited to further the objectives of this action, therefore; Program efforts were focused on other implementation projects during this report period
- Partner Projects:**
- CBBEP partners (USCG Area Plan Committee, South Texas Coastal Zone Advisory Committee and the City of Corpus Christi) have made progress implementing this action including ongoing HAZMAT Contingency Plan development

MC-7

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

Programmatic Measures:

- Establishment of the interagency forum
- Identification of information gaps, duplicative requirements and overlapping jurisdictions
- Development of interagency memoranda of understanding to streamline and coordinate regional pipeline oversight
- Number of pipelines documented and mapped including composition, dimension, product carried, activity level, ownership, and location
- Number of hits on the pipeline GIS database

Programmatic Progress:

- The City of Corpus Christi has extended an invitation to the Railroad Commission and the Texas General Land Office to cooperate on pipeline mapping and data sharing

CCMP Primary Project(s):

- It is recognized that CBBEP partners are best suited to further the objectives of this action, therefore; Program efforts were focused on other implementation projects during this report period

Partner Projects:

- The City of Corpus Christi initiated a project to digitize oil and gas transmission lines within the city limits

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

- Programmatic Measures:**
- Frequency and efficacy of educational initiatives on ballast operations
 - Listing of high-risk vessels
 - Number of ship visits (focus on high-risk vessels)
 - Establishment of regional invasive species strategy
 - Coordination of information with the USCG Marine Safety Information System database.
 - Prioritization of educational efforts and compliance evaluations
- Programmatic Progress:**
- CBBEP staff have been involved in regional invasive group as a precursor to an invasive species strategy
 - USCG has conducted vessel inspections and reported approximately 20% compliance with new ballast discharge reporting regulations
- CCMP Primary Project(s):**
- Program efforts were focused on other implementation projects during this report period
- Partner Projects:**
- Project Manager Leo Trevino has been actively involved with invasive species issues through workshops and the Invasive Species Focus Group
 - It is anticipated that CBBEP FY02 Work Plan will include a project with the Port of Corpus Christi to address invasive species related to ballast water

D-1

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

Programmatic Measures:

- Establishment of BUG
- Quantitative BUG milestones
- Assessment of results of related research on beneficial uses of dredged material
- Number of funding sources identified for beneficial use projects and recycling incentives
- Number of beneficial use projects designed and implemented
- Changes in number of beneficial use projects over time
- Percentage of dredged material used beneficially

Programmatic Progress:

- A BUG has been established
- Public comment is actively being sought to identify potential uses for dredged material from the proposed Corpus Christi Ship Channel widening and deepening project

CCMP Primary Project(s):

- #9903 & #0008 – Beneficial Uses of Dredged Material

Partner Projects:

- CBBEP partners (Port of Corpus Christi Authority and U.S. Army Corps of Engineers) are pursuing a related action item as part of a larger project to widen and deepen the Corpus Christi Ship Channel
- Project Manager Leo Trevino is a regular participant on the Channel Improvements Project Advisory Committee which addresses beneficial use of dredged material from the proposed widening and deepening project

CBBEP Project

#9903 & 0008 – BENEFICIAL USES OF DREDGED MATERIAL																			
Partners:	Port of Corpus Christi Authority and Olivarri and Associates																		
Description:	This project takes advantage of a project funded by the Port of Corpus Christi to evaluate the deepening and widening of the Corpus Christi Ship Channel. A major component of that evaluation is the planning for the placement of dredged material. Funding provided by the CBBEP is being used to expand the public involvement and participation in the planning for the placement, and hopefully beneficial reuse, of sediments to be generated from the new dredging work. In addition, the Port's project scope, limited to the Corpus Christi Ship Channel, was expanded to include the Gulf Intracoastal Waterway and other major channels.																		
Project Status:	Project is approximately 90% complete and should be completed by 8/31/01. The Project Manager is Leo Trevino.																		
Resources:	<table> <tbody> <tr> <td>TNRCC Funds</td> <td>\$16,250</td> <td></td> </tr> <tr> <td>USEPA – §320 Funds</td> <td>\$48,750</td> <td></td> </tr> <tr> <td>Total Program Resources</td> <td></td> <td>\$65,000</td> </tr> <tr> <td>Match – Port Industries of Corpus Christi</td> <td>\$50,000</td> <td></td> </tr> <tr> <td>In-Kind – Port Industries of Corpus Christi</td> <td>\$25,000</td> <td></td> </tr> <tr> <td>Total Project Resources</td> <td></td> <td>\$140,000</td> </tr> </tbody> </table>	TNRCC Funds	\$16,250		USEPA – §320 Funds	\$48,750		Total Program Resources		\$65,000	Match – Port Industries of Corpus Christi	\$50,000		In-Kind – Port Industries of Corpus Christi	\$25,000		Total Project Resources		\$140,000
TNRCC Funds	\$16,250																		
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Total Program Resources		\$65,000																	
Match – Port Industries of Corpus Christi	\$50,000																		
In-Kind – Port Industries of Corpus Christi	\$25,000																		
Total Project Resources		\$140,000																	

D-2

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

Environmental Measures:

- Quantity and quality of dredged material
- Design criteria for deposition operations vs. as built conditions
- Vegetation type prior to and after deposition activities
- Aerial extent of coverage by each disposal event
- Acres of habitat gained/lost
- Acres of target habitat type created (emergent wetlands, SAVs, tidal flats, bird islands)
- Habitat quality indicators

Environmental Measures:

- In the Corpus Christi Ship Channel only maintenance dredging has occurred during this report period with disposal being confined existing approved locations

Programmatic Measures:

- Establishment of dredging oversight group to monitor dredging activities
- Development of a 50-year dredged material management plan
- Completion of inventory of BMP dredging techniques and best management techniques
- Integration of BMPs into 50-year plan
- Increase in use of BMPs
- Reduction in need for disposal areas that are not beneficial use
- Completeness of database and measure of use by implementation partners
- Yearly update of dredging database
- Assessment of existing models for predicting impacts and incorporation of information from the models into the dredging database

Programmatic Progress:

- Dredged material management is integrated with the proposed channel widening and deepening project

CCMP Primary Project(s):

- See CCMP additional projects below

CCMP Additional Project(s):

- #9903 & #0008 – Beneficial Uses of Dredged Material

Partner Projects:

- CBBEP partners (Port of Corpus Christi Authority and U.S. 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
- Project Manager 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.**

Environmental Measures:	<ul style="list-style-type: none"> • Quantity and quality of dredged material • Design criteria for deposition operations vs. as built conditions • Vegetation type prior to and after deposition activities • Aerial extent of coverage by each disposal event • Acres of habitat gained/lost • Acres of target habitat type created (emergent wetlands, SAVs, tidal flats, bird islands) • Habitat quality indicators
Environmental Measures:	<ul style="list-style-type: none"> • CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.
Programmatic Measures:	<ul style="list-style-type: none"> • Establishment of dredging oversight group to monitor dredging activities • Development of a 50-year dredged material management plan • Completion of inventory of BMP dredging techniques and best management techniques • Integration of BMPs into 50-year plan • Increase in use of BMPs • Reduction in need for disposal areas that are not beneficial use • Completeness of database and measure of use by implementation partners • Yearly update of dredging database • Assessment of existing models for predicting impacts and incorporation of information from the models into the dredging database
Programmatic Progress:	<ul style="list-style-type: none"> • An oversight group has been established (Channel Improvements Project Advisory Committee).
CCMP Primary Project(s):	<ul style="list-style-type: none"> • The Program is pursuing this action through staff participation on the Lower Laguna Madre Interagency Coordinating Team which considers long-term dredge material management
CCMP Additional Project(s):	<ul style="list-style-type: none"> • #9903 & #0008 – Beneficial Uses of Dredged Material
Partner Projects:	<ul style="list-style-type: none"> • CBBEP partners (Port of Corpus Christi Authority and U.S. 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. The project scope has been expanded to include parts of the Intracoastal Waterway. • Project Manager Leo Trevino is a regular participant on the Channel Improvements Project Advisory Committee which addresses beneficial use of dredge material from the proposed widening and deepening project • Project Manager Leo Trevino is also actively involved with the Lower Laguna Madre Interagency Coordinating Team which considers long-term dredge material management for that region



habitat and living resources report card

Number of CCMP Actions: 10
Actions with Programmatic Progress: 8
Number of CCMP Primary Projects: 12
Action-Specific Environmental Progress: 5,082 acres
EPA §320 Funds: \$111,023
Leveraged Funds: \$5,396,477

Habitat and Living Resources

Figure 18. Habitat and Living resources CCMP action locator.

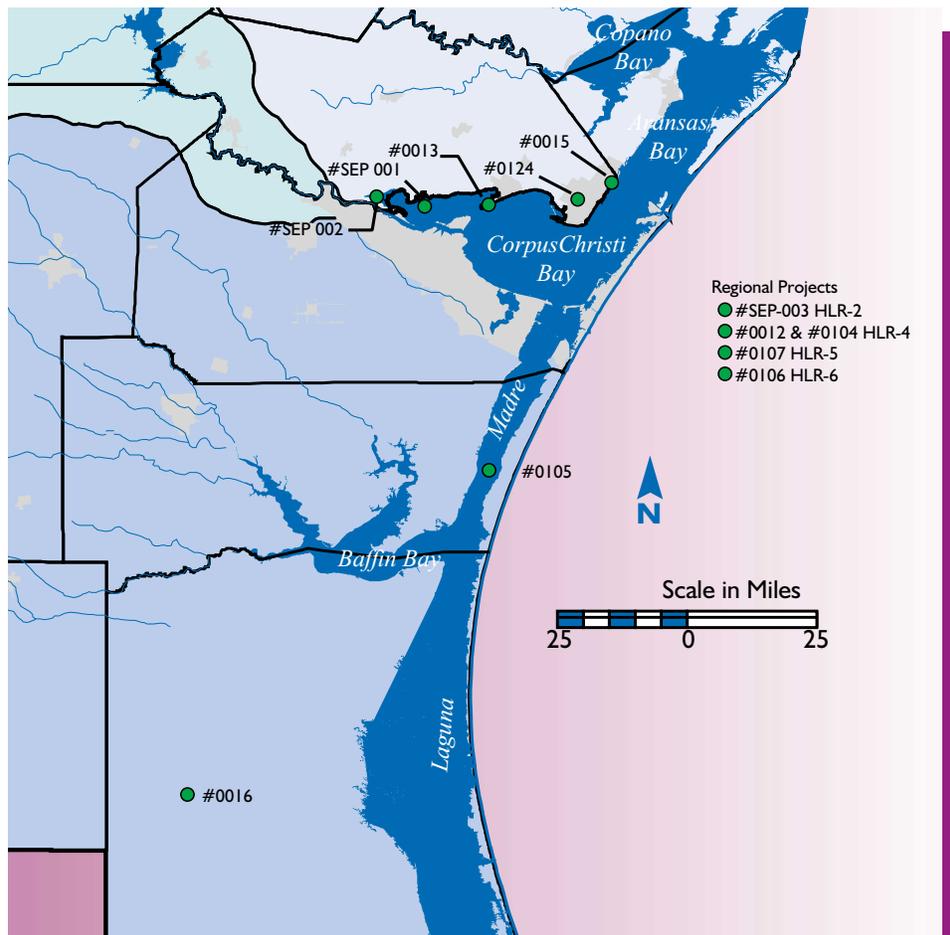
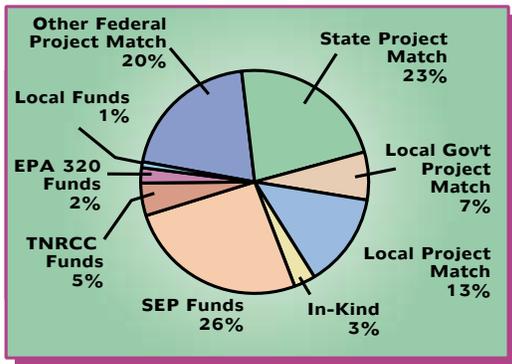
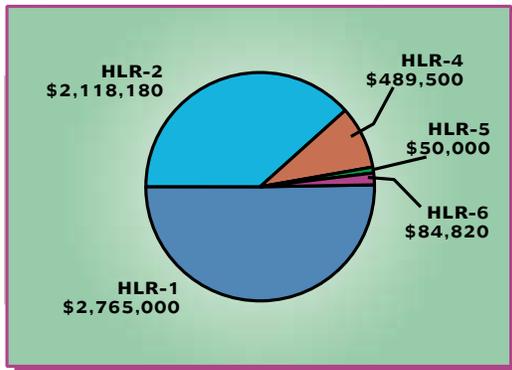


Figure 19. EPA §320 and leveraged funds for Habitat and Living Resources Chapter.



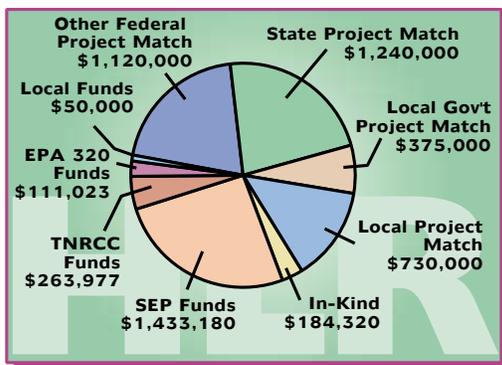
Summary of Program and non-Program resources allocated for the Habitat and Living Resources Action Plan.

Figure 20. Habitat and Living Resources resource allocation.



Summary of Program and non-Program resource allocation for Habitat and Living Resources Actions.

Figure 21. EPA §320 and leveraged funds for Habitat and Living Resources (HLR) Action Plan.



Number of CCMP Actions: 10
Actions with Programmatic Progress: 8
Number of CCMP Primary Projects: 12
Action-Specific Environmental Progress: 5,082 acres
EPA §320 Funds: \$111,023
Leveraged Funds: \$5,396,477

HLR-1

Preserve functional, natural habitats of all major types.

Environmental Measures:

- Acres and quality of preserved habitat

Environmental Progress:

- 5,000 acres of Nueces River delta and upland buffer area protected through purchase and covenant for perpetual protection (#SEP 002)

Programmatic Measures:

- Number of habitat types and locations that have been identified and prioritized
- Number of funding incentives provided to private landowners
- Number of management plans for preservation techniques
- Number of Project Wild certifications
- Number of site-specific plans developed and implemented

Programmatic Progress:

- Two CBBEP projects are underway which further the programmatic and environmental progress of this action
- An additional ten CBBEP related projects are underway which overlap with HLR-1 objectives and further the programmatic and environmental progress of this action

CCMP Primary Project(s):

- #SEP 002 – Habitat Acquisition and protection in San Patricio and Nueces Counties
- #0124 – Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project

CCMP Additional Project(s):

- #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
- #9906 & #0009 – Seagrass Protection and Restoration Project
- #9902, #9908, & #0006 – City of Aransas Pass Shoreline Master Plan
- #0019 – Land Trust Development and Oso Bay and Creek Shoreline Acquisition Project
- #0103 – Support Development of the Coastal Bend Land Trust

Partner Projects:

- CBBEP Project Manager Terri Nicolau is a participating member of the Gulf of Mexico Program Habitat Focus Team which works on estuarine and wetland issues

CBBEP Project

#SEP 002 – HABITAT ACQUISITION AND PROTECTION IN SAN PATRICIO AND NUECES COUNTIES																									
Partners:	The Nature Conservancy, TNRCC, City of Corpus Christi, and USFWS (NAWCA)																								
Description:	Habitat protection through acquisition. 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 habitat that has top priority ecological value or is 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. Specific locations are confidential as negotiations are underway.																								
Project Status:	Project is approximately 50% complete and should be completed by 10/1/01. The Project Manager is Ray Allen.																								
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">CBBEP SEP Funds</td> <td style="width: 20%; text-align: right;">\$1,020,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$1,020,000</td> </tr> <tr> <td>Match – USFWS (NAWCA)</td> <td style="text-align: right;">\$1,000,000</td> <td></td> </tr> <tr> <td>Match – City of Corpus Christi</td> <td style="text-align: right;">\$85,000</td> <td></td> </tr> <tr> <td>Match – The Nature Conservancy</td> <td style="text-align: right;">\$325,000</td> <td></td> </tr> <tr> <td>Match – Marcus Cohn land donation</td> <td style="text-align: right;">\$180,000</td> <td></td> </tr> <tr> <td>In-kind – The Nature Conservancy</td> <td style="text-align: right;">\$80,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$2,690,000</td> </tr> </table>	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
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Total Project Resources		\$2,690,000																							

CBBEP 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:	This innovative project creates a much welcomed partnership with an organization who is known more for moving water off of “wetlands” than for habitat protection. The City and the Drainage District responding to the needs of people whose homes and businesses have been subjected to flooding, are seeking a way to meet those obvious drainage needs while at the same time 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:	Project is approximately 40% complete and should be completed by 1/1/02. The Project Manager is Kendal Keyes.												
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$50,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td>Match – San Patricio County Drainage District</td> <td style="text-align: right;">\$25,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$75,000</td> </tr> </table>	TNRCC Funds	\$50,000		Total Program Resources		\$50,000	Match – San Patricio County Drainage District	\$25,000		Total Project Resources		\$75,000
TNRCC Funds	\$50,000												
Total Program Resources		\$50,000											
Match – San Patricio County Drainage District	\$25,000												
Total Project Resources		\$75,000											

HLR-2 Create new habitats and/or restore degraded habitats where feasible.

- | | |
|------------------------------------|--|
| Environmental Measures: | <ul style="list-style-type: none"> • Acres and quality of restored or created habitats • Emergent Wetlands – Vegetative species composition, relative abundance, above ground biomass • Seagrasses - Species composition, density and vigor via transect sampling |
| Environmental Progress: | <ul style="list-style-type: none"> • 10 acres of rookery habitat created (#SEP 001) • Thirty-one acres of brackish marsh enhanced through construction of culverts (#0013) • 10 acres of native vegetation enhanced through removal of debris and construction of water exchange channels (#0015) • 25 acres of freshwater wetlands constructed (#0016) • 5.5 acres of emergent marsh restored by planting vegetation (<i>Spartina</i>) (#SEP 003) |
| Programmatic Measures: | <ul style="list-style-type: none"> • Development of a Regional Habitat Creation and Restoration Plan • Number of site-specific plans developed and implemented • Monitoring and assessment following the implementation of creation and restoration efforts |
| Programmatic Progress: | <ul style="list-style-type: none"> • Five CBBEP projects are underway which further the programmatic and environmental progress of this action • An additional 11 CBBEP related projects are underway which overlap with HLR-2 objectives and further the programmatic and environmental progress of this action |
| CCMP Primary 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 • #SEP 003 Bay Shoreline Erosion Protection and Habitat Enhancement Project • #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 |
| CCMP Additional 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 • #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 • #9906 & #0009 – Seagrass Protection and Restoration Project • #9902, #9908, & #0006 – City of Aransas Pass Shoreline Master Plan • #0124 – Lake Whitney and McCampbell Slough Watershed Habitat Protection and Public Access Improvement Project |

CBBEP 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 6 existing rookery islands and provide for the restoration of approximately 6 acres of rookery island habitat in Nueces Bay. Because the final details of this project are not yet complete it is possible that even more habitat can be protected and restored. The original intent of this project was to utilize rock to protect rookery islands from erosion and thereby create some additional hard-substrate reef habitat. However, with the completion of the preliminary engineering it now appears that the use of rock berms to provide shoreline protection will be limited to fairly shallow areas (< 2') and our desire to create deepwater reefs will not be accomplished with this particular project.												
Project Status:	Project is approximately 30% complete and should be completed by 10/1/01. The Project Manager is Leo Trevino.												
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">CBBEP SEP Funds</td> <td style="width: 20%; text-align: right;">\$388,180</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$388,180</td> </tr> <tr> <td>Match – Texas General Land Office (CEPRA)</td> <td style="text-align: right;">\$1,165,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$1,553,180</td> </tr> </table>	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
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											

CBBEP Project

#SEP 003 BAY SHORELINE EROSION PROTECTION AND HABITAT ENHANCEMENT PROJECT													
Partners:	Texas General Land Office and USDA-Natural Resources Conservation Services												
Description:	This is also a partnership project with the Texas General Land Office utilizing CEPRA funds with technical input from the TSWCD. 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:	Project is approximately 80% complete and should be completed by 8/31/01. The Project Manager is Leo Trevino.												
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">CBBEP SEP Funds</td> <td style="width: 20%; text-align: right;">\$25,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$25,000</td> </tr> <tr> <td>Match – Texas General Land Office (CEPRA)</td> <td style="text-align: right;">\$75,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$100,000</td> </tr> </table>	CBBEP SEP Funds	\$25,000		Total Program Resources		\$25,000	Match – Texas General Land Office (CEPRA)	\$75,000		Total Project Resources		\$100,000
CBBEP SEP Funds	\$25,000												
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Match – Texas General Land Office (CEPRA)	\$75,000												
Total Project Resources		\$100,000											

Habitat and Living Resources

CBBEP Project	#0013 – SUNSET LAKE WATER CIRCULATION ENHANCEMENT PROJECT		
	Partners:	City of Portland	
	Description:	This project will restore water exchange between several isolated ponds and Sunset Lake. Because these ponds only receive water during periods of extreme high tide or storm events at times they will completely dry up resulting in fish kills and the temporary loss of wading bird habitat. As the ponds are going through the drying up process they become unsightly and odiferous (really stinky) making the park less attractive. The construction of several water exchange culverts under the existing hike and bike path will provide for better water exchange and allow for the fish and other living organisms to escape from these shallow ponds.	
	Project Status:	Project is approximately 20% complete and should be completed by 8/31/01. The Project Manager is Leo Trevino.	
CBBEP Project	Resources:	TNRCC Funds	\$12,500
		USEPA – \$320 Funds	\$37,500
	Total Program Resources		\$50,000
	Match – City of Portland SEP Funds	\$15,000	
	Match – Ducks Unlimited	\$25,000	
Total Project Resources		\$90,000	
CBBEP Project	#0015 – WATER EXCHANGE IMPROVEMENTS AND WETLAND ENHANCEMENTS IN THE ARANSAS PASS NATURE PARK		
	Partners:	City of Aransas Pass	
	Description:	The City of Aransas Pass has done an excellent job of restoring and creating emergent marsh habitat in an area formerly used as a dumpsite. Now dedicated as a nature park the area provides excellent emergent and intertidal marsh habitat for a variety of wildlife species. As a nature park the public is provided with appropriate access designed to make wildlife viewing easy and enjoyable without disturbing the wildlife. This project will continue the effort to remove improperly disposed of debris (from long ago) and create connected ponds, emergent marsh habitat and wading bird feeding areas.	
	Project Status:	Project is approximately 20% complete and should be completed by 8/31/01. The Project Manager is Leo Trevino.	
CBBEP Project	Resources:	TNRCC Funds	\$13,977
		USEPA – \$320 Funds	\$36,023
	Total Program Resources		\$50,000
	Match – City of Aransas Pass	\$250,000	
	Total Project Resources		\$300,000

CBBEP Project

#0016 – CONSTRUCTED WETLANDS IN THE BAFFIN BAY DRAINAGE BASIN																
Partners:	TAMU-Kingsville and Sarita Wastewater District															
Description:	Through this partnership effort the CBBEP is able to piggyback on a much larger project (construction of wastewater ponds) to turn an otherwise routine municipal wastewater treatment project into a wildlife habitat creation project. Rather than simply create the basic treated wastewater evaporation pond, the Sarita Wastewater District with technical assistance from Texas A&M University-Kingsville will intentionally design the facility to be wildlife friendly through the creation of fringe marsh habitat, variable water depth, and possibly even islands within the ponds. An additional component of this project will be the construction of an educational kiosk and viewing platform for the public.															
Project Status:	Project is approximately 15% complete and should be completed by 1/1/02. The Project Manager is Leo Trevino.															
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="text-align: right;">\$12,500</td> <td></td> </tr> <tr> <td>USEPA – §320 Funds</td> <td style="text-align: right;">\$37,500</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td>Land Donation</td> <td style="text-align: right;">\$25,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$75,000</td> </tr> </table>	TNRCC Funds	\$12,500		USEPA – §320 Funds	\$37,500		Total Program Resources		\$50,000	Land Donation	\$25,000		Total Project Resources		\$75,000
TNRCC Funds	\$12,500															
USEPA – §320 Funds	\$37,500															
Total Program Resources		\$50,000														
Land Donation	\$25,000															
Total Project Resources		\$75,000														

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.

Environmental Measures:

- Number of seismic-related activities permitted in the CBBEP project area
- Acres and types of coastal habitat impacted by seismic activity
- Indicators of quality of seagrass beds, unvegetated tidal flats, oyster reefs, open bay bottoms, coastal marshes, barrier islands, and Gulf beaches

Environmental Progress:

- Impacts have decreased throughout the Coastal Bend in part because of improved reporting and regulatory agency oversight and also because of a decrease in seismic activity.

Programmatic Measures:

- Establishment of a working group to identify and prioritize seismic activity impacts
- Number of demonstration projects developed and implemented
- Completion of evaluation of the current seismic permitting process based on demonstration project findings

Programmatic Progress:

- Improved methods adopted to monitor impacts and where needed, restitution
- The number of seismic activities in the CBBEP Area has greatly diminished, thereby relieving urgency of action

CCMP Primary Project(s):

- Natural resource and regulatory agencies have been monitoring this activity and the present management of seismic activities is considered adequate

Partner Projects:

- The Texas Parks & Wildlife Department has 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. During this report period approximately \$38,000 in restitution has been assessed.

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

- Environmental Measures:**
- Status and trends of selected species of concern
- Programmatic Measures:**
- Number of species management plans developed and implemented
- Programmatic Progress:**
- Three CBBEP projects are underway which further the programmatic and environmental progress of this action
 - One additional CBBEP related project is underway which overlaps with HLR-4 objectives and furthers the programmatic and environmental progress of this action
- CCMP Primary Project(s):**
- #0012 & #0104 – Colonial Waterbird Rookery Island Management within the Coastal Bend Region
 - #0105 – The Effects of Redhead Ducks on Shoal Grass in the Laguna Madre
- CCMP Additional Project(s):**
- #SEP 001 Enhancement of Hard Substrate Reefs and Colonial Waterbird Rookery Islands In Nueces and Corpus Christi Bays

CBBEP Project	#0012 & #0104 – COLONIAL WATERBIRD ROOKERY ISLAND MANAGEMENT WITHIN THE COASTAL BEND REGION												
	Partners:	CBBEP Staff Project with technical advice and support from USFWS, Texas Audubon Society, USEPA Gulf of Mexico Project											
	Description:	Recognizing the long-term decline in populations of certain colonial waterbird species the CBBEP has initiated a multi-year project to develop and implement a Strategic Management Plan to stop the population decline and eventually restore bird populations to historic levels. The 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:	Additional funding is expected to continue this through August 2002. The CBBEP Project Managers for these projects are Gene Blacklock and Richard Gibbons.											
	Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">TNRCC Funds</td> <td style="text-align: right;">\$75,000</td> </tr> <tr> <td>Match – USEPA GOMP</td> <td style="text-align: right;">\$90,000</td> </tr> <tr> <td>Match – USFWS</td> <td style="text-align: right;">\$30,000</td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td style="text-align: right; border-top: 1px solid black;">\$195,000</td> </tr> <tr> <td style="padding-top: 10px;">In-kind – Texas Audubon Society</td> <td style="text-align: right; padding-top: 10px;">\$19,500</td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$214,500</td> </tr> </table>	TNRCC 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
TNRCC 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												

Habitat and Living Resources

CBEP Project

#0105 – THE EFFECTS OF REDHEAD DUCKS ON SHOAL GRASS IN THE LAGUNA MADRE																			
Partners:	TAMU-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:	Project is approximately 15% complete and should be completed by 8/31/02. The Project Manager is Terri Nicolau.																		
Resources:	<table border="0" style="width: 100%;"> <tr> <td>TNRCC Funds</td> <td style="text-align: right;">\$50,000</td> <td></td> </tr> <tr> <td>Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td>Match – Ducks Unlimited</td> <td style="text-align: right;">\$125,000</td> <td></td> </tr> <tr> <td>Match – Texas A&M University – Kingsville</td> <td style="text-align: right;">\$50,000</td> <td></td> </tr> <tr> <td>Match – Caesar Kleberg Wildlife Research Institute</td> <td style="text-align: right;">\$50,000</td> <td></td> </tr> <tr> <td>Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$275,000</td> </tr> </table>	TNRCC Funds	\$50,000		Total Program Resources		\$50,000	Match – Ducks Unlimited	\$125,000		Match – Texas A&M University – Kingsville	\$50,000		Match – Caesar Kleberg Wildlife Research Institute	\$50,000		Total Project Resources		\$275,000
TNRCC Funds	\$50,000																		
Total Program Resources		\$50,000																	
Match – Ducks Unlimited	\$125,000																		
Match – Texas A&M University – Kingsville	\$50,000																		
Match – Caesar Kleberg Wildlife Research Institute	\$50,000																		
Total Project Resources		\$275,000																	

HLR-5 **Improve animal rescue and rehabilitation programs.**

- Programmatic Measures:**
- The development and completion of a workshop to establish a coordinated network of communication involved with animal rescue and rehabilitation
 - Level of funding for TMMSN, STSSN, and bird rescue and rehabilitation
 - Number and quality of animal rehabilitation facilities.
 - Number of animals rescued or rehabilitated
 - Number of volunteers at animal rehabilitation facilities

- Programmatic Progress:**
- One CBBEP project is underway which furthers the programmatic progress of this action

- CCMP Primary Project(s):**
- #0107 – Animal Rescue and Rehabilitation Project

- Partner Projects:**
- As part of this project, CBBEP partners (Texas State Aquarium, UT Marine Science Institute and the Texas Marine Mammal Stranding Network) are coordinating their rescue and rehabilitation efforts

CBBEP 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:	Project was started on 9/01/00, is approximately 98% complete and should be completed by 6/15/01. The Project Manager is Terri Nicolau.									
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Local Sponsors</td> <td style="width: 20%; text-align: right;">\$50,000</td> <td style="width: 20%;"></td> </tr> <tr> <td>Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td>Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 3px double black;">\$50,000</td> </tr> </table>	Local Sponsors	\$50,000		Total Program Resources		\$50,000	Total Project Resources		\$50,000
Local Sponsors	\$50,000									
Total Program Resources		\$50,000								
Total Project Resources		\$50,000								

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

- Programmatic Measures:**
- Number of workshops and meetings to discuss management of bay and bait shrimping
 - Number of conflicts between segments of the shrimp industry
 - Formation of a Regional Shrimping Advisory Board
 - Number of recommendations that are developed, presented, and implemented
- Programmatic Progress:**
- One CBBEP project is underway which furthers the programmatic progress of this action
- CCMP Primary Project(s):**
- #0106 – Bay Shrimping in the Coastal Bend – A Summary of Current Conditions
- Partner Projects:**
- Project Manager Terri Nicolau represents the CBBEP on the Texas Parks and Wildlife Shrimp Task Force which addresses bay, bait and aquaculture issues in the state

#0106 – BAY SHRIMPING IN THE COASTAL BEND – A SUMMARY OF CURRENT CONDITIONS													
Partners:	TAMU-CC Center for Coastal Studies												
Description:	In an effort to gain a better understanding of the bay shrimping industry in the Coastal Bend the CBBEP has implemented a project to gather relevant biological, sociological and financial information. This information, and the contacts established to gather the information, 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.												
Project Status:	Project is approximately 40% complete and should be completed by 8/31/01. The Project Manager is Terri Nicolau.												
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">TNRCC Funds</td> <td style="width: 15%; text-align: right;">\$50,000</td> <td style="width: 15%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td>In-kind – Center for Coastal Studies</td> <td style="text-align: right;">\$34,820</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 3px double black;">\$84,820</td> </tr> </table>	TNRCC Funds	\$50,000		Total Program Resources		\$50,000	In-kind – Center for Coastal Studies	\$34,820		Total Project Resources		\$84,820
TNRCC Funds	\$50,000												
Total Program Resources		\$50,000											
In-kind – Center for Coastal Studies	\$34,820												
Total Project Resources		\$84,820											

HLR-7**Reduce bycatch from bay shrimp trawling****Environmental Measures:**

- Amount of bycatch – weight by species

Environmental Progress:

- In 1999 the Texas Parks and Wildlife Commission approved several new regulations related to bay shrimping. Beginning in 2001, all bay shrimpers will be required to utilize an approved bycatch reduction device. In addition, the Commission designated all of Nueces Bay, Copano Bay and Mesquite Bay as shrimp nursery areas and implemented a ban on all bay and bait shrimping in these areas.

Programmatic Measures:

- Completion of evaluation of bycatch Reduction Devices for optimal design
- Amount of funding for the purchase of BRDs
- Number of voluntary users of BRDs in the bay shrimping industry

Programmatic Progress:

- Significant regulatory changes to the shrimping industry greatly advance the objectives of this action
- There is one CBBEP related project underway which overlaps with HLR-7 objectives and furthers the programmatic and environmental progress of this action

CCMP Primary Project(s):

- Due to regulatory changes (see Partner Projects below) it was determined that Program resources for this action would not be allocated during this report period

CCMP Additional Project(s):

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

Partner Projects:

- Texas Parks and Wildlife Commission has implemented new rules and regulations (see Environmental Progress above)

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

- | | |
|---------------------------------|--|
| Environmental Measures: | <ul style="list-style-type: none">• Number and biomass of fish and shellfish species killed on intake screens or in cooling water systems• Rate of impingement and entrainment |
| Environmental Progress: | <ul style="list-style-type: none">• CBBEP staff and committees continue to monitor this issue and work with appropriate authorities. |
| Programmatic Measures: | <ul style="list-style-type: none">• Impacts from impingement and entrainment of organisms at cooling water intakes evaluated• Number of potential mechanisms to reduce impingement and entrainment• Number of incentives to encourage voluntary use of reduction mechanisms by industry identified |
| Programmatic Progress: | <ul style="list-style-type: none">• It is recognized that CBBEP partners are best suited to further the objectives of this action, therefore;• Program efforts were focused on other implementation projects during this report period |
| CCMP Primary Project(s): | <ul style="list-style-type: none">• Regulatory and permit agencies have improved discharge requirements for new and renewed applications |

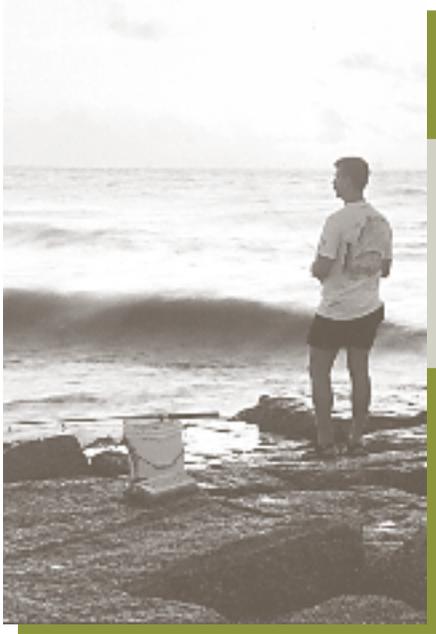
HLR-9**Minimize the impacts and reduce the occurrence of harmful algal blooms.**

- Environmental Measures:**
- The frequency, extent, and impact of HABs
 - Impact of HABs (decreased water clarity, loss of seagrass beds, closed shellfish beds, contact recreation advisories)
- Programmatic Measures:**
- Organization of advisory team to identify potential factors that could reduce impacts from HABs
 - Completion of risk assessment of proposed HAB management options
 - Completion of cost/benefit analysis of proposed management options
 - Number of HAB control demonstration projects
 - Number of funding sources for HAB demonstration project implementations identified
 - Completion of evaluation of BMPs for minimizing HAB impacts
 - Number of updates provided to the research consortium and the public on HABs
- Programmatic Progress:**
- Current efforts are focused on water quality monitoring which supports the identification of factors that may affect HAB blooms or reduce impacts
- CCMP Primary Project(s):**
- See CCMP additional projects below
- CCMP Additional Project(s):**
- #0002, #0108 & #0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region
- Partner Projects:**
- CBBEP research partners continue to study the factors and impacts related to harmful algal blooms and participate in national forums to exchange information
 - Texas Parks and Wildlife maintain a HAB rapid response team which provides timely information to the public in a variety of medias
 - Texas Department of Health continues monitoring water quality as it relates to consumption of seafood

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

- Environmental Measures:**
- Species type, distribution, and population size of non-native species
- Environmental Progress:**
- CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.
- Programmatic Measures:**
- Distribution and ecological impacts of existing non-native species
 - Identification of techniques for controlling problematic non-native species
 - Number of non-native species control demonstration projects implemented
 - Number of control methods implemented through existing programs
 - Number of non-native species management plans developed and implemented
 - Changes over time in distribution an range of existing non-native species
- Programmatic Progress:**
- The programmatic progress of this action has not been determined
- CCMP Primary Project(s):**
- Program efforts were focused on other implementation projects during this report period
- Partner Projects:**
- Project Manager Leo Trevino has been actively involved with invasive species issues through workshops and the Invasive Species Focus Group
 - It is anticipated that CBBEP FY02 Work Plan will include a project with the Port of Corpus Christi to address invasive species as it relates to ballast water

water & sediment quality report card



Number of CCMP Actions: II
Actions with Programmatic Progress: II
Number of CCMP Primary Projects: II
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$528,009
Leveraged Funds: \$370,519

Water and Sediment Quality

Figure 22. Water and Sediment Quality CCMP action locator.

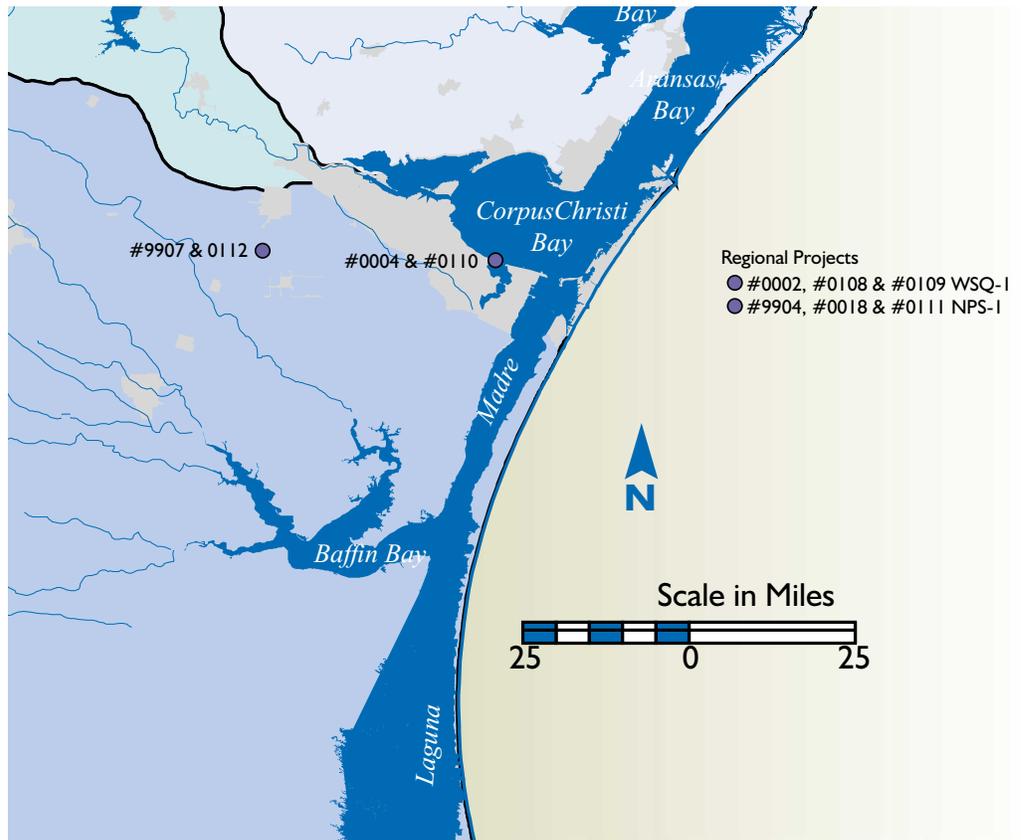
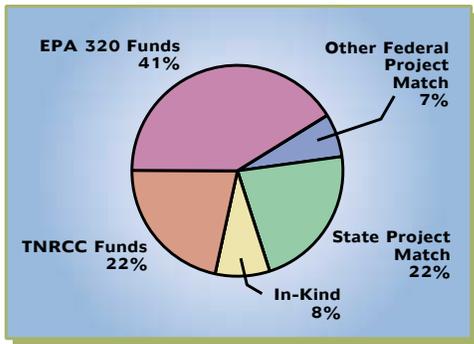
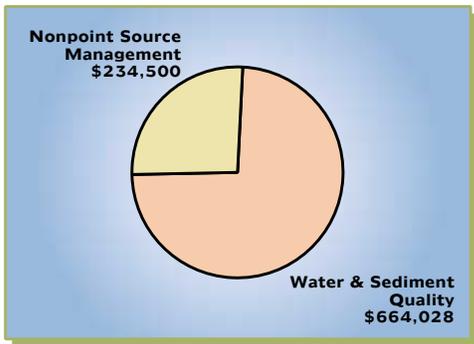


Figure 23. EPA §320 and leveraged funds for Water and Sediment Quality Chapter.



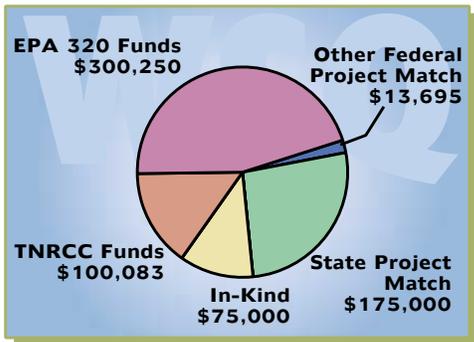
Summary of Program and non-Program resources allocated for the Water and Sediment Quality Chapter Actions.

Figure 24. Water and Sediment Quality Chapter resource allocation.



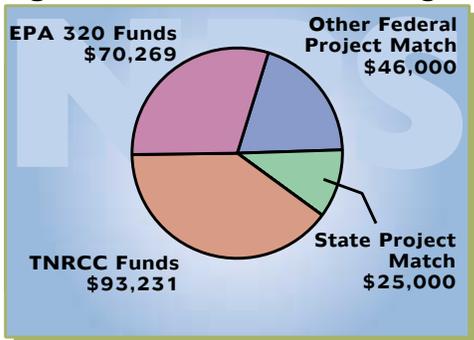
Summary of Program and non-Program resource allocation for Water and Sediment Quality Actions.

Figure 25. EPA §320 and leveraged funds for Water and Sediment Quality (WSQ) Action Plan.



Number of CCMP Actions: 5
Actions with Programmatic Progress: 5
Number of CCMP Primary Projects: 6
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$300,250
Leveraged Funds: \$363,778

Figure 26. EPA §320 and leveraged funds for Nonpoint Source Management (NPS) Action Plan.



Number of CCMP Actions: 4
Actions with Programmatic Progress: 4
Number of CCMP Primary Projects: 5
Action-Specific Environmental Progress: N/A
Total Base Funding: \$70,269
Leveraged Funds: \$164,231

WSQ-1

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

Environmental Measures:

- Water Quality Data: Station data, hydrographic parameters, nutrients, chlorophyll a and b, TSS, fecal coliform and fecal streptococci, BODc, selected trace metals, ammonia and sulfide, inorganic and suspended solids
- Sediment Screening: Grain size, total organic carbon, NOAA Status and Trends list of contaminants (PAHs, PCBs, pesticides, and metals), and benthic infauna (species, community indicators, and diversity)

Environmental Progress:

- CBBEP and partner projects are underway but data collection and analysis is incomplete, CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.

Programmatic Measures:

- Number of segments that do not meet water quality standards and sediment screening levels
- Development and implementation of water and sediment quality improvement plans for each segment that is not in compliance
- Number of completed TMDL allocations for segments on the 303(d) list
- Number of segments on 303(d) list
- Development and implementation of segment specific plans to address elevated levels of metals where necessary
- Development and implementation of DO and fecal coliform plans for Oso Bay

Programmatic Progress:

- Three CBBEP projects are underway which further the programmatic and environmental progress of this action
- Nine additional CBBEP related projects are underway which overlap with WSQ-1 objectives and further the programmatic and environmental progress of this action

CCMP Primary Project(s):

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

CCMP Additional Project(s):

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

Partner Projects:

- Conducting regional water quality monitoring requires a substantial commitment of resources and coordination by local, state and federal agencies – see CBBEP projects for WSQ-1 below
- CBBEP Project Manager Terri Nicolau is a participant in the Texas Natural Resource Conservation Commission sponsored Water Quality Advisory Workgroup which focuses on state-wide water quality regulations and issues

Note: After careful review of the existing water and sediment quality data, including the status and trends reports prepared by the CBBEP, it was determined that our first step should be to undertake an intensive, statistically robust water and sediment sampling effort. Please see below for a description of those projects. The results of that sampling program will lead into the next appropriate step.

CBBEP 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, TNRCC, 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:	Project #0002 is complete. Project #0108 is approximately 10% complete, and project #0109 is 50% completed. Expected completion date for these projects is 8/31/02. The Project Manager is Terri Nicolau.																								
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="text-align: right;">\$83,833</td> <td></td> </tr> <tr> <td>USEPA – §320 Funds</td> <td style="text-align: right;">\$251,500</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$335,333</td> </tr> <tr> <td>Match – Texas Parks & Wildlife</td> <td style="text-align: right;">\$35,000</td> <td></td> </tr> <tr> <td>Match – Texas General Land Office</td> <td style="text-align: right;">\$140,000</td> <td></td> </tr> <tr> <td>In-kind – TNRCC/USEPA</td> <td style="text-align: right;">\$35,000</td> <td></td> </tr> <tr> <td>In-kind – EPA Office of Research & Development</td> <td style="text-align: right;">\$30,000</td> <td></td> </tr> <tr> <td style="text-align: center;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$575,333</td> </tr> </table>	TNRCC Funds	\$83,833		USEPA – §320 Funds	\$251,500		Total Program Resources		\$335,333	Match – Texas Parks & Wildlife	\$35,000		Match – Texas General Land Office	\$140,000		In-kind – TNRCC/USEPA	\$35,000		In-kind – EPA Office of Research & Development	\$30,000		Total Project Resources		\$575,333
TNRCC Funds	\$83,833																								
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In-kind – TNRCC/USEPA	\$35,000																								
In-kind – EPA Office of Research & Development	\$30,000																								
Total Project Resources		\$575,333																							

WSQ-2

Support the implementation of permitting rules for shrimp farms and other aquaculture facilities.

Programmatic Measures:

- Percentage of aquaculture facilities that have state discharge permits
- Number of aquaculture facilities that have applied for discharge permits
- Completion of comparison of requirements for aquaculture permits
- Implementation of the existing interagency memorandum of understanding on permitting issues, disease control monitoring and response, and investigations of aquaculture facilities
- Percentage of permits utilizing TPWD recommended discharge permit limits
- Number of public notices vs. number of applications for permits for aquaculture facilities
- Number of meetings/workshops open to the public for permitting and rule-making for aquaculture facilities
- Number of public comments on proposed permitting and rulemaking for aquaculture facilities received at meetings/workshops
- Number of site specific plans developed and implemented

Programmatic Progress:

- In 1999, new regulations were established which result in dramatic decreases in wastewater discharges and pollution from shrimp farming throughout the state
- A new shrimp farm facility was established in the region and is operating under a no-discharge permit

CCMP Primary Project(s):

- Program efforts were focused on other implementation projects during this report period

Partner Projects:

- Environmental Defense worked with a citizen’s coalition to improve state aquaculture regulations including wastewater discharge permits

WSQ-3 **Quantify total constituent loadings.****Programmatic Measures:**

- Completion of assessment of data needs for point and nonpoint sources
- Completion of additional data collection if necessary
- Development and implementation of point and nonpoint source monitoring program
- Assessment of percentage of primary point and nonpoint sources
- Development of a voluntary data collection program to collect actual data using 'clean techniques' for inclusion in the total loadings model
- Quantity and quality of voluntary data submitted
- Development of the 'total loadings model'
- Comparison of the 'total loadings model' with the state's TMDL process
- Assessment of the usefulness of alternative models

Programmatic Progress:

- The CBBEP projects will result in data that can be included in the total loadings model
- One CBBEP project is underway which further the programmatic progress of this action
- And one additional CBBEP related project is underway which overlaps with WSQ-3 objectives and furthers the programmatic progress of this action

CCMP Primary Project(s):

- #0004 & #0110 – Atmospheric Deposition Study
- This action is also supported through CBBEP staff participation in the City of Corpus Christi's air quality committee (see Partner Projects below)

CCMP Additional Project(s):

- #0003 Regional Approach to Ensure Recreational Water Quality (Project Managed by TNRCC)
- #0002, #0108 & #0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region

Partner Projects:

- Significant resource allocation and coordination by CBBEP partners facilitates these projects
- Project Manager Leo Trevino is a regular participant on the Air Quality Committee of the City of Corpus Christi
- Project Manager Terri Nicolau is a participant on the Texas Parks and Wildlife Department sponsored Texas Water Monitoring Congress to consider state-wide monitoring issues
- The Welder Wildlife Refuge is conducting

Water and Sediment Quality

#0004 & #0110 - ATMOSPHERIC DEPOSITION STUDY														
CBBEP Project	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:	Project is approximately 10% complete and should be completed by 12/30/02. The Project Manager is Leo Trevino.												
	Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">TNRCC Funds</td> <td style="text-align: right;">\$16,250</td> </tr> <tr> <td>USEPA - §320 Funds</td> <td style="text-align: right;">\$48,750</td> </tr> <tr> <td>Special EPA Funding</td> <td style="text-align: right;">\$13,659</td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td style="text-align: right; border-top: 1px solid black;">\$78,659</td> </tr> <tr> <td style="padding-top: 10px;">In-kind - TAMU</td> <td style="text-align: right; padding-top: 10px;">\$10,000</td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$88,695</td> </tr> </table>	TNRCC Funds	\$16,250	USEPA - §320 Funds	\$48,750	Special EPA Funding	\$13,659	Total Program Resources	\$78,659	In-kind - TAMU	\$10,000	Total Project Resources	\$88,695
	TNRCC Funds	\$16,250												
USEPA - §320 Funds	\$48,750													
Special EPA Funding	\$13,659													
Total Program Resources	\$78,659													
In-kind - TAMU	\$10,000													
Total Project Resources	\$88,695													

WSQ-4 **Undertake an analysis of the biological and ecological effects of selected constituents.****Programmatic Measures:**

- Completion of assessment of the transport, fate, and biological effects of targeted loadings
- Completion of tests run to determine the reaction/response of key life stages of marine/estuarine fauna to varying constituent concentrations

Programmatic Progress:

- After careful review of the existing water and sediment quality data, including the status and trends reports prepared by the CBBEP, it was determined that our first step should be to undertake an intensive, statistically robust water and sediment sampling effort. Please see WSQ-1 for a description. The results of that sampling program will lead into the next appropriate step.

CCMP Primary Project(s):

- While Program resources were not allocated during this period, it is anticipated that the FY02 Work Plan will include a project to examine the biological and ecological effects of nutrient loading in Redfish Bay

WSQ-5

Ensure that water quality standards and sediment quality criteria are adequate and appropriate.

Programmatic Measures:

- Number of water quality standards, sediment screening levels, and biological criteria confirmed or changed as a result of monitoring data review
- Continued review of water quality standards, sediment screening levels, and biological criteria

Programmatic Progress:

- After careful review of the existing water and sediment quality data, including the status and trends reports prepared by the CBBEP, it was determined that our first step should be to undertake an intensive, statistically robust water and sediment sampling effort. Please see WSQ-1 for a description. The results of that sampling program will lead into the next appropriate step.

CCMP Primary Project(s):

- See CCMP additional projects below

CCMP Additional Project(s):

- #0002, #0108 & #0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region
- #0003 Regional Approach to Ensure Recreational Water Quality (Project Managed by TNRCC)

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.**

- Programmatic Measures:**
- Development of a regional technical advisory committee
 - Formulation of technical advisory committee, creation of nonpoint source BMP library, preparation of draft and final handbooks, promotion and distribution of the handbook
 - Number of communities and business associations represented in the regional initiative
 - Number of BMP startups and completions
 - Number and size of grants issued, number of NPDES permits issued, number of requests for assistance
 - Number of technical assistance efforts implemented
 - Number of funding sources identified

- Programmatic Progress:**
- Three CBBEP projects are underway which further the programmatic progress of this action
 - One additional CBBEP related project is underway which overlaps with NPS-1 objectives and furthers the programmatic progress of this action

- CCMP Primary Project(s):**
- #9904, #0018, & #0111 Nonpoint Source Pollution Prevention Assistance Project

- CCMP Additional Project(s):**
- #0102 – Bay Debris Removal Demonstration Project – End of Pipe Collection System

CBBEP 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 in the area of stormwater management. A regional technical advisory committee will be convened to identify, compile and develop (if necessary) resources or a handbook of recommended urban nonpoint source BMPs that are 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:	Project is approximately 50% complete and should be completed by 8/31/02. The Project Manager is Leo Trevino.	
	Resources:	TNRCC Funds	\$83,231
	USEPA – §320 Funds	\$40,269	
	Total Program Resources		\$123,500
	Match – Texas General Land Office (319 funds)	\$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.

- Environmental Measures:**
 - Water quality improvements by constituent or number of impaired water segments
 - Stream and Point Source Characterization (NPDES or CBBEP Monitoring): Flow (daily), nutrients, turbidity, TSS, fecal coliform and fecal streptococci, BODc, selected trace metals, PAHs, PCBs, pesticides, oil and grease
 - Floatable and plastic debris in vicinity of major nonpoint sources

- Environmental Progress:**
 - CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.

- Programmatic Measures:**
 - List of businesses subject to NPDES programs or that have nonpoint source control needs that have not implemented pollution prevention plans
 - Number of full time equivalents devoted to providing technical assistance
 - Amount of funding devoted to technical assistance
 - Number of workshops conducted for businesses and industries subject to NPDES programs or that have nonpoint source control needs that have not implemented pollution prevention plan

- Programmatic Progress:**
 - Three CBBEP related projects are underway which overlap with NPS-2 objectives and further the programmatic progress of this action

- CCMP Primary Project(s):**
 - See CCMP additional projects below

- CCMP Additional Project(s):**
 - #9904, #0018, & #0111 Nonpoint Source Pollution Prevention Assistance / Assistance to Local Governments Project

- Partner Projects:**
 - Texas Natural Resource Conservation Commission has continued to offer assistance to small businesses which fall under the NPDES regulations

NPS-3 **Assist local governments to implement On-Site Sewage Facility (OSSF) programs.**

- Environmental Measures:**
- Water quality improvements by constituent or number of impaired water segments
 - Stream and Point Source Characterization (NPDES or CBBEP Monitoring): Flow (daily), nutrients, turbidity, TSS, fecal coliform and fecal streptococci, BOD_c, selected trace metals, PAHs, PCBs, pesticides, oil and grease
- Environmental Progress:**
- CBBEP and partner projects are underway but results are not available for this report, CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.
- Programmatic Measures:**
- Number of grant applications, number of grant awards, size of grant awards, number of OSSF permits with/without assistance, % OSSF permits and completions using desired technology, reduction of number of illegal domestic discharges into waterways
 - Number of local governments assisted
 - Development of OSSF compliance data management system
 - Development and implementation of surface and ground water monitoring plan at colonias
- Programmatic Progress:**
- Two CBBEP projects are underway which further the programmatic progress of this action
- CCMP Primary Project(s):**
- #9907 & #0112 Rehabilitation of Failed OSSF in Priority Areas/ Assistance to Local Governments
- Partner Projects:**
- Failing OSSF problems are being addressed by multiple agencies with overlapping mandates including Counties' Department of Health, Texas Natural Resource Conservation Commission and the EPA Gulf of Mexico Program

CBBEP 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:	Project #9907 is approximately 50% complete, and project #0112 is approximately 20% complete. These projects should be completed by 8/31/01. The Project Manager is Terri Nicolau.										
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">TNRCC Funds</td> <td style="text-align: right;">\$10,000</td> </tr> <tr> <td>USEPA – §320 Funds</td> <td style="text-align: right;">\$30,000</td> </tr> <tr> <td>USEPA GOMP</td> <td style="text-align: right;">\$46,000</td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td style="text-align: right; border-top: 1px solid black;">\$86,000</td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td style="text-align: right; border-top: 3px double black;">\$86,000</td> </tr> </table>	TNRCC Funds	\$10,000	USEPA – §320 Funds	\$30,000	USEPA GOMP	\$46,000	Total Program Resources	\$86,000	Total Project Resources	\$86,000
TNRCC 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.

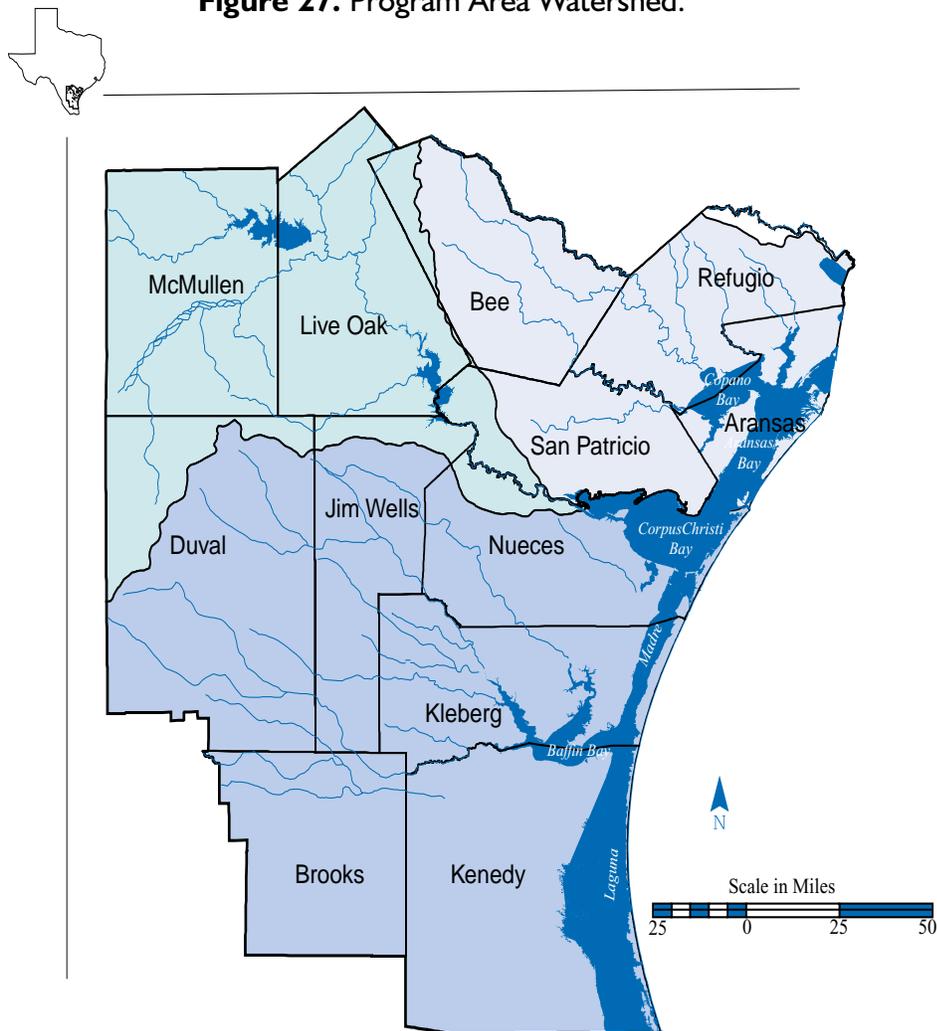
- | | |
|---------------------------------|---|
| Environmental Measures: | <ul style="list-style-type: none"> • Water quality improvements by constituent or number of impaired water segments • Stream and Point Source Characterization (NPDES or CBBEP Monitoring): Flow (daily), nutrients, turbidity, TSS, fecal coliform and fecal streptococci, BODc, selected trace metals, PAHs, PCBs, pesticides, oil and grease |
| Environmental Progress: | <ul style="list-style-type: none"> • CBBEP staff and committees continue to monitor this issue and work with appropriate authorities. |
| Programmatic Measures: | <ul style="list-style-type: none"> • Formulation of technical and public participation committees, preparation and review of management plan, publication and promotion of management plan • Level of technical assistance provided to interested landowners in support of Senate Bill 503 water quality management plans • Identification of cost-share funding for assisting interested landowners in support of Senate Bill 503 water quality management plans • Amount of land voluntarily placed under agricultural water quality management programs • Completion of review and coordination of provisions from federal legislation on water quality • Number of educational workshops conducted on BMPs for water quality management and agricultural runoff • Number and dollar value of 319 grants solicited and won, number of 319 agricultural runoff BMP demonstration projects initiated and completed • Number of applications for 503 grants, number of grants approved and dollar value of assistance, number of grant project completed, % of participating agriculture landowners by region (number and area) |
| Programmatic Progress: | <ul style="list-style-type: none"> • BMPs are being implemented with assistance from the Texas State Soil & and Water Conservation Board |
| CCMP Primary Project(s): | <ul style="list-style-type: none"> • While no Program resources were allocated to this action during this period, it is anticipated that FY02 Work Plan will include directly related activities |
| Partner Projects: | <ul style="list-style-type: none"> • The Texas State Soil & and Water Conservation Board is actively implementing BMPs in concert with regional ranching and farming stakeholders |



freshwater resources report card

Number of CCMP Actions: 4
Actions with Programmatic Progress: 4
Number of CCMP Primary Projects: 0
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$0
Leveraged Funds: \$0

Figure 27. Program Area Watershed.



Fresh Water Resources

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

- Assessment of the use of current, cost effective, and scientifically acceptable methods for monitoring for freshwater inflow
- Coordination of sample analysis methods for programs monitoring freshwater inflow
- Assessment of the needs for freshwater inflow that provide sediments, nutrients, and salinity levels necessary to maintain the health and productivity of the bays and estuaries
- Development and assessment of methods for measuring estuary and bay productivity
- Revision of reservoir operating plan
- Assessment and coordination of the overall data collection needs and identification of locations
- Completion of a flow and rainfall collection quality assurance plan
- Compilation of user friendly, easy-to-access data repository

Programmatic Progress:

- Three CBBEP related projects are underway which overlap with FW-1 objectives and further the programmatic progress of this action. In addition, the CBBEP is coordinating the various monitoring efforts underway in the Nueces River Delta.

CCMP Primary Project(s):

- See CCMP additional projects below

CCMP Additional Project(s):

- #0002, #0108 & #0109 – Surface Water and Bay Sediment Quality Monitoring throughout the Coastal Bend Region. The CBBEP has identified a fisheries recruitment project related to freshwater inflows for FY'02.

Partner Projects:

- CBBEP partners (Nueces River Authority, City of Corpus Christi, UTMSI and Texas Parks and Wildlife) continue to explore the ecological impacts and requirements for freshwater inflows

FW-2

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

Programmatic Measures:

- Formation of regional advisory board developed for freshwater stakeholders
- Creation of the regional water plan based on Senate Bill 1
- Inventory of projects evaluating water reuse benefits
- Compilation of alternative methods and water conservation initiatives
- Progress on diversion of treated wastewater to the Nueces delta
- Number of initiatives developed and implemented
- Number of education programs conducted
- Number of alternative freshwater supply sources investigated and demonstration projects initiated
- Number of households and businesses implementing water conservation
- Completion of project inventory with project feasibility assessment

Programmatic Progress:

- The Coastal Bend Regional Water Planning Group Project – SB 1 has been established
- Significant progress has been made to develop strategies maximizing beneficial effects of freshwater flows

CCMP Primary Project(s):

- CBBEP is supporting this action through staff participation in the regional planning effort – see partner projects below

Partner Projects:

- CBBEP Project Manager Terri Nicolau is a regular participant on the Coastal Bend Regional Water Planning Group which focuses on developing a regional water plan

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

- Amount, timing and location of fresh water flows, rainfall trends, salinity, water quality (nutrient loading) in the system, productivity within the bay, climate trends and forecasting
- Benthic community species composition/biomass
- Fish community species composition/biomass
- Wetland plant species composition
- Wetland plant productivity/biomass
- Freshwater flows, duration, and extent of wetland flooding due to increased flows

Environmental Progress:

- CBBEP staff and committees continue to monitor this issue and work with appropriate authorities.

Programmatic Measures:

- Number of demonstration projects developed and implemented to increase freshwater inflows to the bays and estuaries
- Number of feasibility studies performed on implementing successful demonstration projects on a bay-wide scale
- Development of educational materials in support of the Rincon Bayou Project and its objectives.

Programmatic Progress:

- Staff participation on the Coastal Bend Regional Water Planning Group

CCMP Primary Project(s):

- CBBEP is supporting this action through staff participation in a regional water planning effort – see FW-2

Partner Projects:

- One ongoing demonstration project uses a innovative system of wastewater distribution in the Nueces River delta
- A second recently completed demonstration project channeled water to the upper Nueces River delta during flood conditions and is expected to be established on a permanent basis
- CBBEP Project Manager Terri Nicolau is an regular participant on the Coastal Bend Regional Water Planning Group which focuses on developing a regional water plan

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

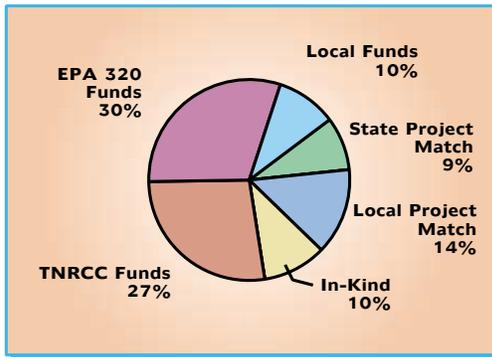
- Programmatic Measures:**
- Development and implementation of communication strategy
 - Development and implementation of public opinion poll assessing public support for efficient use of water in the project area
 - Number of conservation measures implemented
- Programmatic Progress:**
- Three CBBEP related projects are underway which overlap with FW-4 objectives and further the programmatic progress of this action
- CCMP Primary Project(s):**
- See CCMP additional projects below
- CCMP Additional Project(s):**
- #0123 – Sarita Wetlands Habitat Enhancement and Public Access Improvement Project
 - #0113 – Develop and Implement a Regional Public Outreach Strategy
 - #0114 – CBBEP Website and information Clearinghouse
- Partner Projects:**
- CBBEP Project Manager Terri Nicolau is an active participant on the Xeriscape Corpus Christi Committee which supports use of native, draught tolerant vegetation for commercial and residential landscape



public education & outreach report card

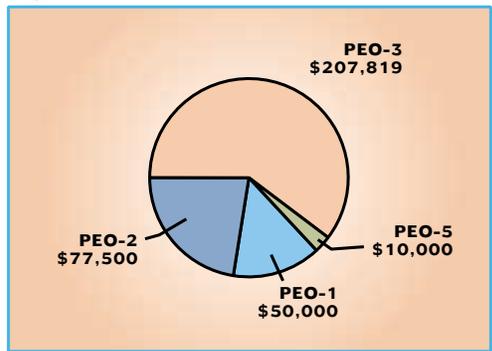
Number of CCMP Actions: 5
Number of CCMP Primary Projects: 6
Actions with Programmatic Progress: 5
Action-Specific Environmental Progress: N/A
EPA §320 Funds: \$105,000
Leveraged Funds: \$240,319

Figure 28. EPA §320 and leveraged funds for the Public Education and Outreach Chapter.



Summary of Program and non-Program resources allocated for the Public Education and Outreach Action Plan.

Figure 29. Public Education and Outreach Chapter resource allocation.



Summary of Program and non-Program resource allocation for Public Education and Outreach Actions.

PEO-1

Develop and implement a regional public education and outreach strategy.

Programmatic Measures:

- Formation of Public Outreach Advisory Committee
- Establishment or enhancement of public outreach efforts where the Public Outreach Advisory Committee determines there are gaps
- Development and implementation of public awareness surveys
- Designation of media point person
- Frequency of utilization of mass media
- Listing of high traffic areas where information can be distributed most effectively
- Number of displays and interactive exhibits established
- Establishment of information resource center, hotline, and Internet site
- Number of people visiting the Internet site, visiting the information resource center, and calling the hotline
- Development and distribution of "Environmental Citizen's Guide", newsletter, "State of the Bays" report, videos and public service announcements

Programmatic Progress:

- Two CBBEP projects (one in-house) are underway which further the programmatic progress of this action
- 13 CBBEP related projects are underway which overlap with PEO-1 objectives and further the programmatic progress of this action

CCMP Primary Project(s):

- #0113 – Develop (in-house by CBBEP Communications Manager Isabel Valle-Carpenter) and Implement a Regional Public Outreach Strategy
- CBBEP Project Manager Kendal Keyes is working on the Program's Website and information Clearinghouse

CCMP Additional Project(s):

- #0014 – Ecotourism Strategic Plan and Support Materials
- #0101 – Ecotourism Management and Stewardship Promotion Project
- #0119 – Ropes 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
- #0123 – Sarita Wetlands Habitat Enhancement and Public Access Improvement Project
- #9906 & #0009 – Seagrass Protection and Restoration Project
- #0016 – Constructed Wetlands in the Baffin Bay Drainage Basin
- #9904, #0018, & #0111 Nonpoint Source Pollution Prevention Assistance Project

Partner Projects:

- CBBEP Project Manager Terri Nicolau is a participant on the Texas Sea Grant sponsored Texas Marine Educators Advisory Committee which is performing an assessment of coastal education/ outreach programs and specific target audiences
- CBBEP Project Manager Kendal Keyes is actively involved the Corpus Christi Botanical Gardens' interpretive display, "Take a Walk Through the Wetlands"

CBBEP 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:	Project is approximately 75% complete and should be completed by 8/31/01. The Project Manager is Isabel Valle-Carpenter.												
Resources:	<table> <tbody> <tr> <td>TNRCC Funds</td> <td>\$12,500</td> <td></td> </tr> <tr> <td>USEPA – §320 Funds</td> <td>\$37,500</td> <td></td> </tr> <tr> <td>Total Program Resources</td> <td></td> <td>\$50,000</td> </tr> <tr> <td>Total Project Resources</td> <td></td> <td>\$50,000</td> </tr> </tbody> </table>	TNRCC Funds	\$12,500		USEPA – §320 Funds	\$37,500		Total Program Resources		\$50,000	Total Project Resources		\$50,000
TNRCC Funds	\$12,500												
USEPA – §320 Funds	\$37,500												
Total Program Resources		\$50,000											
Total Project Resources		\$50,000											

PEO-2

Establish a Bay Day Celebration to focus attention on bay resources and uses

Programmatic Measures:

- Formation of Bay Day Committee
- Development of list of co-sponsors and participants
- Evaluation of host sites
- Development of event work plan
- Development of advertising campaign
- Number of people attending Bay Day
- Level of public awareness after the Bay Day has been held

Programmatic Progress:

- Two CBBEP projects further the programmatic progress of this action and when combined with staff support have been instrumental in developing and implementing Earth Day/ Bay Day in 2000 and 2001
- CBBEP has also been improving the environmental experience at Bayfest by co-hosting a scale wetland exhibit
- All listed programmatic measures have been completed

CCMP Primary Project(s):

- #9909 & #0115 (partial) – Bay Stewardship and Celebration Day(s)

Partner Projects:

- These two projects require the participation and support of scores of CBBEP partners

CBBEP 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 good 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 accomplish our mutual goal of making more people aware of our bays and estuaries.		
	Project Status:	Project #9909 was completed during fiscal year 2000 and project # 0115 will be completed during FY'01. The Project Manager is Isabel Valle-Carpenter.		
	Resources:	TNRCC Funds	\$11,508	
		Local Sponsors	\$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	

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.**

- Programmatic Measures:**
- Establishment of regionally focused environmental curriculum
 - Development of K-12 state and national science standards
 - Distribution of educational materials
 - Number of existing outdoor educational facilities
 - Development of improvement plan for prioritized sites
 - Number of workshops and teacher training courses
 - Completion of surveys of environmental education teachers
- Programmatic Progress:**
- Four CBBEP projects are underway which further the programmatic progress of this action
 - An additional eight CBBEP related projects are underway which overlap with PEO-3 objectives and further the programmatic progress of this action
- CCMP Primary Project(s):**
- #0011 – Promoting Multicultural Involvement in Coastal Bend Environmental Issues
 - #0115 (partial) – Various Public Education and Outreach Programs (Teaching Environmental Science Workshop & National Ocean Science Bowl)
 - #0116 – Bay Ambassador Program
 - #0117 – Keepers of the Coast
- CCMP Additional Project(s):**
- #0014 – Ecotourism Strategic Plan and Support Materials
 - #0101 – Ecotourism Management and Stewardship Promotion Project
 - #0118 – Hazel Bazemore Park Habitat Protection and Public Access Enhancement Project
 - #0119 – Ropes 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
 - #0123 – Sarita Wetlands Habitat Enhancement and Public Access Improvement Project.

Public Education and Outreach

CBBEP Project	#0011 – PROMOTING MULTICULTURAL INVOLVEMENT IN COASTAL BEND ENVIRONMENTAL ISSUES		
	Partners:	Coastal Bend Bays Foundation and TAMU-CC, University Outreach	
	Description:	In an effort to reach low-income minority youth the CBBF and TAMU-CC University Outreach Department have initiated a project to introduce these young people to the bay system. Groups of students recruited from local schools and programs will be brought to the University campus to learn about bay ecology and then get to experience the bay system first hand. Each student will be trained in the safe use of a kayak and get to explore different parts of the bay (under the close watch of a trained professional, other field experiences include pulling a seine, bird watching, studying wetlands, etc.	
	Project Status:	Project is approximately 25% complete and should be completed by 8/31/00. The Project Manager is Isabel Valle-Carpenter.	
	Resources:	TNRCC Funds	\$10,000
	USEPA – §320 Funds	\$30,000	
	Total Program Resources		\$40,000
	In-kind – various regional organizations	\$8,590	
	Total Project Resources		\$48,590
CBBEP Project	#0115 (PARTIAL) – VARIOUS PUBLIC EDUCATION AND OUTREACH PROGRAMS		
	Partners:	(CBBEP Staff Project) with lots of external partners such as 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 of those projects are specifically related to PEO-3. While these projects may have overlapping goals each is a separate effort unto itself. 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.	
	Project Status:	Project is approximately 50% complete and should be completed by 8/31/01. The Project Manager for these projects is Isabel Valle-Carpenter.	
	Resources:	Local Sponsor	\$15,000
	Total Program Resources		\$15,000
	Total Project Resources		\$15,000

CBEP Project

#0116 – BAY AMBASSADOR PROGRAM																			
Partners:	Texas Agricultural Extension Service																		
Description:	This project is designed to involve students from “non-coastal” schools in the coastal Bend in programs to learn more about the bays and estuaries. Unfortunately, experience has shown that communities located only a short distance from the bay, such as Kingsville, Sinton, and Beeville do not consider their communities to be “coastal communities”. Yet in reality they live in the immediate watershed of the bay and in fact those communities are less than hour away from the water by automobile. The Texas Agricultural Extension Service (TAES) is extremely well situated to reach out to these communities to make them more aware of their role in the bay system. TAES recruits student leaders from these communities for supplemental education on bay resource management issues and then uses these students to reach out to other students and the community at large at events such as livestock shows, "Ag" days at high schools and other events. In partnership with the Texas State Aquarium, TAES uses the mobile aquarium to further this outreach effort.																		
Project Status:	Project is approximately 50% complete and should be completed by 8/31/01. The Project Manager is Isabel Valle-Carpenter.																		
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$12,500</td> <td style="width: 20%;"></td> </tr> <tr> <td>USEPA – \$320 Funds</td> <td style="text-align: right;">\$37,500</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$50,000</td> </tr> <tr> <td>Match – Texas Ag. Extension Service (CMP Grant)</td> <td style="text-align: right;">\$30,000</td> <td></td> </tr> <tr> <td>In-kind – various regional organizations</td> <td style="text-align: right;">\$7,529</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$87,529</td> </tr> </table>	TNRCC Funds	\$12,500		USEPA – \$320 Funds	\$37,500		Total Program Resources		\$50,000	Match – Texas Ag. Extension Service (CMP Grant)	\$30,000		In-kind – various regional organizations	\$7,529		Total Project Resources		\$87,529
TNRCC Funds	\$12,500																		
USEPA – \$320 Funds	\$37,500																		
Total Program Resources		\$50,000																	
Match – Texas Ag. Extension Service (CMP Grant)	\$30,000																		
In-kind – various regional organizations	\$7,529																		
Total Project Resources		\$87,529																	

CBEP 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:	Project is approximately 50% complete and should be completed by 8/31/01. The Project Manager is Isabel Valle-Carpenter.															
Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">TNRCC Funds</td> <td style="width: 20%; text-align: right;">\$47,000</td> <td style="width: 20%;"></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$47,000</td> </tr> <tr> <td>Match – local foundations</td> <td style="text-align: right;">\$2,700</td> <td></td> </tr> <tr> <td>In-kind – Texas State Aquarium</td> <td style="text-align: right;">\$7,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">\$56,700</td> </tr> </table>	TNRCC 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
TNRCC 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-4 Conduct public forums to increase dialogue between resource managers and users.

Programmatic Measures:

- Number of public forums held
- Number of attendees at forums
- Number of newsgroups developed

Programmatic Progress:

- Two CBBEP related projects are underway which overlap with PEO-4 objectives and further the programmatic progress of this action
- CBBEP sponsored or co-sponsored numerous public forums on issues relating to resource management including the Texas Colonial Waterbird Symposium, South Texas Environmental Conference, Tarpon Tomorrow Symposium, as well as workshops on beneficial reuse of dredge material and public meetings for the City of Aransas Pass Shoreline Management Plan.

CCMP Primary Project(s):

- See CCMP additional projects below

CCMP Additional Project(s):

- #9903 & #0008 – Beneficial Uses of Dredged Material

Partner Projects:

- CBBEP partner, the Coastal Bend Bays Foundation routinely holds public forums to present resource management issues in the Coastal Bend

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

- Programmatic Measures:**
- Number and coverage of citizen monitoring programs
 - Number of bay-related environmental award programs
 - Number of “Clean the Bay” days and the quantity of trash collected
 - Number of educational, industrial, local, and national grant award programs in the project area
 - Number of local grant proposals developed
- Programmatic Progress:**
- One CBBEP project is underway which furthers the programmatic progress of this action
- CCMP Primary Project(s):**
- #0115 (partial) – Various Public Education and Outreach Programs (Friends of the Bay & Environmental Excellence Recognition Programs)
- Partner Projects:**
- State and local CBBEP partners are actively involved in volunteer Gulf and bay cleanup projects

CBBEP Project	#0115 (PARTIAL) – VARIOUS PUBLIC EDUCATION AND OUTREACH PROGRAMS									
	Partners:	(CBBEP Staff Project) with lots of external partners such as 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-5. While these projects may have overlapping goals each is a separate effort unto itself.</p> <p>An additional \$5,000 is allocated to the “Friends of The Bay” (FOB) program to develop a program to bring local businesses into the area of resource protection and management. Those businesses that meet program criteria will be awarded “Friend of the Bay” status and rewarded with the use of the FOB program logo in their advertising (this is sort of modeled after the good house keeping seal of approval program).</p> <p>The Environmental Excellence Recognition Program (\$5,000 allocation) will annually recognize leading individuals and organizations whose actions have helped to improve the local environment.</p>								
	Project Status:	Project is ongoing and is funded through 8/31/01. The Project Manager for these projects is Isabel Valle-Carpenter.								
	Resources:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Local Sponsors</td> <td style="text-align: right;">\$10,000</td> <td></td> </tr> <tr> <td style="text-align: right;">Total Program Resources</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$10,000</td> </tr> <tr> <td style="text-align: right;">Total Project Resources</td> <td></td> <td style="text-align: right; border-top: 3px double black;">\$10,000</td> </tr> </table>	Local Sponsors	\$10,000		Total Program Resources		\$10,000	Total Project Resources	
Local Sponsors	\$10,000									
Total Program Resources		\$10,000								
Total Project Resources		\$10,000								

b. Stakeholder Activity

During the report period, the CBBEP leveraged a total of \$5,729,789 for projects and an additional \$2,805,000 in matching program operation funds. The largest percentage of these funds came from state agencies followed by federal, local government and finally local (nongovernmental) organizations. Stakeholder activity as measured by partner project support was the highest for the Habitat & Living Resources Action Plan follow by Bay Recreation and Tourism, Water and Sediment Quality and Shoreline Management Action Plans. Stakeholder support increased each year during the report period.

FEDERAL (INCLUDING EPA §320 FUNDS)

Total Federal Government Support: \$2,163,853

Total Number of Federal Funding Sources: 4

Summary Support:

- The EPA provided approximately \$330,000 in annual base support for operations or projects. However, because of the Program's success in securing leveraged funds all of EPA's money was directed to CCMP implementation projects.
- The U.S. Fish & Wildlife Service supported specific projects with a total \$1,030,000 match including a contribution of \$1,000,000 from NAWCA funds.
- The EPA supported specific CBBEP projects with a total \$149,695 match including \$136,000 from the Gulf of Mexico Program.
- The EPA also supported specific projects with an approximate \$17,500 in-kind contribution.
- This group had a combined in-kind contribution of \$47,500 for CCMP projects.

Progress:

- Federal entities have contributed substantially to the Program's overall success during this report period.
- The EPA has met or exceeded its commitments to implementing the CCMP.

Issues & Challenges

- State and federal support hinge on developing projects to achieve the objectives of the CCMP and the legislated mandates of partner agencies
- Others funding issues relate to the availability of resources.

STATE

Total State Government Support: \$4,157,000

Total Number of State Funding Sources: 9

Summary Support:

- The Texas Natural Resources Conservation Commission (TNRCC) provided approximately \$860,000 in annual match to support program operations and projects.
- TNRCC supported specific CBBEP projects with an additional \$82,000 match and \$17,500 of in-kind support.
- The Texas General Land Office supported specific CBBEP projects with a total \$1,405,000 match including a contribution of \$1,165,000 from CEPRA funds.
- The Texas Parks & Wildlife Department supported specific CBBEP projects with \$60,000 in matching support.
- This group had a combined in-kind contribution of \$63,538 for CCMP projects.

Progress:

- State government has been very active in furthering the goals and objectives of the CCMP. Agencies have supported implementation through direct support of the CBBEP and through self-guided efforts to address priority issues identified in the CCMP.

Issues & Challenges

- State and federal support hinge on developing projects to achieve the objectives of the CCMP and the legislated mandates of partner agencies.
- Funding is dependant on the availability of resources.

LOCAL GOVERNMENT

Total Local Government Support: \$1,379,700

Total Number of Supporting Local Governmental Entities: 8

Summary Support:

- Annual matching contributions for general operations are received from Nueces and San Patricio Counties, the Port of Corpus Christi Authority and the City of Corpus Christi for a combined total of \$255,000.
- The City of Port Aransas supported specific CBBEP projects with a \$323,700 match and \$7,000 of in-kind support

- The City of Aransas Pass supported one specific CBBEP project with a \$250,000 match.
- The City of Corpus Christi supported specific CBBEP projects with an \$85,000 match and \$99,000 in-kind support.

Progress:

- Local governments were very active in supporting CCMP implementation.

Issues & Challenges

- Local governments face tight budgets and personnel shortages. Gaining support for projects outside their jurisdiction can present a public relations challenge.
- Demonstrating the benefits to the bottom line from environmental stewardship will also be a challenge for the foreseeable future.

OTHER LOCAL ORGANIZATIONS (Including NGOs, industry, and landowners)

Total Local (non-governmental) Support: \$1,133,119

Total Number of Supporting Local Organizations: 9 +

Summary Support:

- The Nature Conservancy led this group with a \$325,000 match and \$80,000 in-kind contribution in support of specific actions
- Landowners donated land for two specific CBBEP projects with an estimated value of \$205,000
- Ducks unlimited supported two projects with a combined \$150,000 match
- The Port Industries of Corpus Christi make annual contributions of \$75,000 for Program operations and projects.
- This group had a combined in-kind contribution of \$178,119 for CCMP projects.

Issues & Challenges

- There are few local nongovernmental organizations with large financial resources from which to draw.

SEP FUNDS

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

- \$1.02 million has been designated for land acquisition projects (#SEP 002).

- \$413,180 has been designated for habitat and erosion protection projects (#SEP 001 and #SEP 003).
- Remaining funds are to be allocated for habitat and erosion protection projects.

c. Changes in Priorities

The CCMP identifies the following priority issues:

- Altered freshwater inflows into the bays and estuaries;
- Condition of living resources;
- Loss of wetlands and estuarine habitats;
- Degradation of water quality;
- Altered estuarine circulation;
- Bay debris; and
- Public health issues

Tasked with developing actions to address the priority issues, fourteen Action Plan Task Forces were established. These task forces – comprised of representatives for industry, agriculture, ranching, recreational interests, environmental organizations, municipal and county governments, scientists, and federal and state resource managers – developed 150 actions during the initial planning phase.

The Management Conference conducted an intense review to evaluate the proposed 150 actions and determined that 50 would be in the final CCMP – each considered a priority action. By characterizing these actions as priority actions, the CBBEP is able to respond to changes in environmental conditions and funding opportunities in this dynamic coastal region. In that regard, Work Plan development affords the Management Conference an opportunity to annually revisit environmental priorities as mapped against available funding opportunities.

As described in the CCMP and reiterated in the adopted *By-Laws of the Coastal Bend Bays & Estuaries Program, Inc.*, (see attachment 10) a review of the CCMP is scheduled every five years from the effective date. The By-Laws outline the mechanism for the review and are summarized below:

- The Citizen's Advisory Committee (CAC) will advise the Bays Council on matters that affect various user groups, private citizens, and other organizations. Furthermore it shall '... provide input on program goals and objectives...comment on funding levels and research priorities...'
- The Bays Council is responsible for drafting proposed amendments to the

CCMP. It shall ‘... strive to receive the concerns from, and to build consensus among, the user groups, local, state and federal agencies, private industries, environmental groups, the scientific community, and general public concerning management planning and implementation for the Program area.’

- The Executive Council will consider the proposed amendments from the Bays Council and shall review the CCMP every five years.
- The CBBEP shall ‘...coordinate the reexamination and updating of the Bays Plan [CCMP] every five years.’

II. Environmental Results

The CBBEP Regional Monitoring Plan (RMP) was completed in February 2001. The RMP is the culmination of intensive effort by individuals representing federal, state, local, private, and academic organizations currently collecting environmental data. There are hundreds of established sampling stations in the Coastal Bend region with an associated annual cost of approximately \$3 million. Clearly, the attraction for these participating organizations is the potential for improved efficiencies and cost benefits associated with coordinating data collection and information sharing.

The RMP establishes a foundation for long-term monitoring improvements. In creating a mechanism for interagency cooperation, issues such as overlapping data requirements, quality control and quality assurance can be addressed. Furthermore, the RMP provides a detailed assessment and review of current monitoring efforts and proposes new monitoring needs as necessary to achieve two goals:

- Measure the effectiveness of the management actions and programs implemented under the CCMP; and
- Provide essential information that can be used to redirect and refocus the CCMP during implementation.

The RMP uses both environmental monitoring (measures effectiveness of actions in the environment) and programmatic monitoring (measures progress implementing specific CCMP Action Plans). The RMP directly links progress evaluation to expected environmental responses resulting from those actions and addresses three basic questions:

- Are the goals and objectives of the CCMP being met?
- Is the ecosystem responding to the management actions?
- Is progress being communicated [to stakeholders] in an effective and timely manner?

There are two distinct types of environmental monitoring. The first is a system wide assessment of environmental changes to determine the overall health of the bays. This monitoring includes major areas of concern such as habitat, water and sediment quality, freshwater resources, commercial and recreational fisheries, species of concern and shoreline management. A system-wide assessment uses both specific parameters and environmental indicators to determine change over time. This provides resource managers with an assessment of the cumulative impacts of actions by the CBBEP and its partners. This type of monitoring and assessment often has legal or political implications and therefore performed according to quality assurance/quality control (QA/QC) protocols.

The second type of environmental monitoring is action-specific. This is conducted to assess environmental changes directly attributed to CCMP actions. This assessment is site specific and subject to specific monitoring plans that measure the environmental response to actions. Some require short-term monitoring or a simple environmental assessment, rather than long-term monitoring.

Programmatic monitoring measures the progress of CCMP action implementation. It keeps resource managers and the CBBEP informed of actions and the degree to which they are, or are not, achieving their intended outcome.

Environmental and programmatic progress will be added to database system designed to track completion of CCMP action milestones and deliverables

a. Status of Environmental Monitoring Program

Table 2. Major organizations involved in environmental monitoring.

- Coastal Bend Bays Land Trust
- Texas Natural Resource Conservation Commission
- National Oceanic Science and Atmospheric Administration
- National Weather Service
- Nueces River Authority
- Texas A&M University
- Texas A&M University Corpus Christi – Center for Coastal Studies
- Texas Coastal Ocean Observation Network
- Texas Department of Health
- Texas General Land Office
- Strandings Network
- Texas Nature Conservancy
- Texas Parks and Wildlife Department
- Texas water Development Board
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Geological Service
- University of Texas Marine Science Institute

ENVIRONMENTAL MONITORING, COORDINATION AND REPORTING

The RMP promotes cooperation among agencies and stakeholders by coordinating efforts into an integrated monitoring plan to measure the response of the CBBEP system to the various CCMP actions. Towards this end, the CBBEP will organize and facilitate an annual monitoring agencies' coordination meeting to incorporate existing and planned monitoring efforts or elements into the RMP, identify critical information gaps, and attempt to standardize and coordinate future monitoring efforts. This effort will minimize duplication, reduce costs and provide integrated results to the scientific, regulatory and stakeholder communities in an efficient and timely manner.

Under the RMP, scientifically sound sampling, analytical methods and quality assurance/quality control (QA/QC) protocols will be adopted to ensure that monitoring data are of high quality and directly comparable. Where new QA/QC plans are needed, the CBBEP will act as the central organization for coordinating the development of Quality Assurance Project Plans (QAPPs). The QAPPs describe the goals, data needs, sampling locations and schedules, analytical and interpretive approach, methods and how the data will be used within the monitoring program.

Data will be made available to the CBBEP in electronic and hardcopy formats. It will be entered into the CBBEP Information Clearinghouse which provides public access to data sets via the CBBEP Web site. All participants will supply data in a manner to ensure timely distribution to the public. Clearinghouse data will be augmented with links to participants' data stored on their Internet sites as appropriate.

PARAMETERS MONITORED

The RMP identifies known parameters used by partners for water quality monitoring. See Table A-2 in the RMP for a complete list of parameters.

ROLE OF CBBEP STAFF IN ENVIRONMENTAL MONITORING AND DATA MANAGEMENT

The CBBEP staff is directly involved in monitoring and data management in several ways. There are ten CBBEP projects underway that include environmental data collection (see RMP Table I-1). Staff works with the project contractors to assist development and review of QAPPs, Scopes of Work and Final Reports. Staff also review received data for compliance with the CBBEP Data and Information Management System (DIMS) guidelines (see attachment I I) prior to entering it into the CBBEP Information Clearinghouse. This review process is performed on all data including CBBEP project and RMP partner data sets. Periodically, staff will review RMP implementation progress including frequency and timing of partner submissions, technical, logistical and/or political issues affecting compliance. When issues are identified, staff will work with the partners to solve them in the best interest of the stakeholders.

EFFECTIVENESS OF THE REGIONAL MONITORING PLAN

The RMP is a major milestone in CCMP implementation, evaluation and interagency coordination. It effectively describes current monitoring efforts as well as anticipated data management and reporting. Implementation of the RMP is just getting started and therefore an evaluation of the plan may be premature. Soon, a critical evaluation of the RMP's strength and weakness will be possible once implementation is fully underway. In that regard, the RMP is already scheduled for periodic review and evaluation.

Plans for reviewing the RMP include an annual monitoring agencies' coordination meeting facilitated by the CBBEP to ensure that system-wide monitoring and reporting is coordinated. Also, annual programmatic summaries of CCMP implementation will include analysis of RMP implementation. This schedule of meetings and analysis provides Program staff, RMP participants and the Management Conference with an annual assessment of implementation. During this period, improvements to the RMP can be considered and implemented.

In addition, the CBBEP will facilitate a comprehensive review and update of the RMP every five years. This will allow participants time to fully integrate data sharing into their workflow and revisit potential benefits from proposed plan improvement. Any outstanding technical, logistical or policy issues that have not been resolved during the intermediate years can also be addressed.

The RMP has identified monitoring gaps and makes recommendations to enhance present monitoring activities. Full implementing will depend on actualizing cost benefits for participants. However, implementing these improvements or others identified in the future is contingent upon adequate funding commitments, as are present monitoring activities. Because funding will be a challenge for all participants, it is important that the CBBEP and its partners can demonstrate cost benefits through coordination of data collection and reporting.

b. Environmental Indicators

The RMP has identified environmental indicators that allow a measure of overall health of the bays. As a tool, the indicators are useful in answering the following questions:

- Does implementation of CCMP actions result in improved environmental conditions with the CBBEP system?
- What areas show the greatest improvements?

Below is a summary of key resources and the types of indicators (parameters) used to monitor system-wide environmental trends (see attachment XX, RMP).

Habitat

Area: Acres of each key habitat

Quality: Wetland Value Assessment, Habitat Evaluation Procedures, and Hydrogeomorphic Approach for emergent wetlands.

SAV: primary parameters include maximum depth of SAV growth, shoot density and patchiness, and vegetative species composition. Secondary parameters include above ground biomass, below ground biomass, and secondary productivity.

Emergent wetlands: Primary parameters include vegetative species composition

and percent cover; secondary parameters include above ground biomass and primary productivity.

Tidal flats: Changes in area will be used as the primary indicator of system changes; secondary parameters include infaunal and epifaunal species composition.

Riparian areas: Vegetative species composition, percent cover, length of vegetated stream/shoreline, width of vegetated zone around stream/shoreline, and measures of patchiness of vegetation in riparian areas.

Oyster reef areas: A baseline assessment of hard substrate areas is needed before monitoring can be conducted.

Water Quality

Station data: Location, time, date, tide stage, water depth

Routine field parameters: Temperature, conductivity (salinity), dissolved oxygen, transparency, fluorescence and pH

Nutrients: Nitrogen, phosphorous, total organic carbon and dissolved organic carbon, sulfide if dissolved oxygen is < 1 mg/L, Ammonia

Chlorophyll a and b

Total suspended solids

Biochemical Oxygen Demand

Sediment Oxygen Demand

Trace metals

Sulfide

Organics

Fecal indicators: Fecal coliform, enterococci, e.coli

Sediment quality

Bulk sediment properties: Grain size, Total Organic Carbon, Redox Potential
Discontinuity

Contaminants: NOAA Status and Trends list of contaminants, TBT, dioxin, diazinon, chlorpyrifos, acid volatile sulfide/simultaneously extracted metals

Sediment toxicity: Sediment Quality Triad

Benthic infaunal: Species, community indicators – diversity measures and proportion of opportunistic infaunal species. Indicators of benthic community health – EMAP Benthic Index may be used if appropriate and adequate reference sites in the CBBEP can be identified.

Freshwater Resources

Freshwater flow: Flux, volume, timing and locations of fresh water flows (point and river) into the CBBEP area, rainfall trends, freshwater demand

Salinity

Commercial and Recreational Fisheries

Fish and shellfish: Fish and shellfish relative abundance, standing crops vs. fishing pressure, CPUE for spotted seatrout, red drum, southern flounder, black drum, Atlantic croaker, blue crab, commercial fish landings by type from within the system areas including fisheries-dependent data on commercial fish/shellfish landings based on industry self-reporting and fisheries-independent data collected by the coastal fisheries monitoring program. TPWD Creel surveys data and data on catch-and-release

Contaminants: Metals, mercury, organics, hydrophobic organics (pesticides, PCB) in edible tissue of fish and shellfish

Bacteria: Bacteria indicators in waters classified as polluted, conditionally approved, approved for harvest

Species of Concern

Bird species: Population size and reproduction statistics, colonial bird nesting pairs, number of rookery sites visited or vandalized

Marine mammals: Stranding and mortality

Sea turtles: Stranding and turtle condition, nesting sea turtles and turtle nests

Shoreline Management

Length, area and location: Hardened shoreline, solid structures, breakwaters, bulkheads, revetments, piers and boat houses, constructed wetlands, drainage controls, wetlands, beaches, barrier islands, shoreline erosion/accretion statistics

c. Environmental Results and Trends

The CBBEP and its partners are actively collecting data that will provide a system-wide assessment of environmental trends in the Coastal Bend resulting from the cumulative effects of action implementation. Ten CBBEP projects and numerous partner projects are underway to quantify changes to habitat, water and sediment quality, freshwater resources, commercial and recreational fisheries, species of concern and shoreline management.

However, three factors limit the Program's ability to report system-wide environmental progress at this time. First, CBBEP actions with expected system-wide effects are still in progress and the results may not be discernible for some time. Second, significant Program and partner resources are being directed toward water and sediment quality assessment projects to determine with statistical confidence, bay and estuary health in the Coastal Bend. Results are not yet available. Finally, partners have not yet submitted data to the Information Clearinghouse in part, because the RMP was so recently completed. For these reasons, reporting system-wide environmental changes as a result of CBBEP or partner action is premature.

However, it is possible to report action-specific environmental results. While many of the projects listed below are still underway, local environmental benefits can be directly attributed to CBBEP activities, albeit on a smaller scale. For example, localized environmental progress has been determined for 18 projects with a total of almost 9,000 acres of improved habitat (see Table 3).

Table 3. Action-specific environmental results.

PROJECT #	ACRES	HABITAT TYPE	ACTION	PROJECT DESCRIPTION
#9902, #9906, & #0006	10	Brackish marsh	Restoration	Shoreline wetlands protection & planning - restrict vehicle access to wetlands
#0007	3	Brackish marsh	Restoration	Restoration of eroded wetland habitat - rebuild wetlands lost to erosion
#0019	30	Brackish marsh	Protection	Acquisition and perpetual protection/management of shoreline wetlands
#0119	2	Bay shoreline & uplands	Protection	Acquisition and public access improvements/ management
#0121	10	Brackish marsh	Restoration	Educational displays & construction of barriers to restrict vehicle access to wetlands
#0013	31	Brackish marsh	Enhancement	Construct water exchange structures (culverts)
#0015	10	Brackish marsh	Enhancement	Remove old debris, dredge water exchange channels, restore native vegetation
#0016	25	Fresh marsh	Establishment	Excavation of uplands to create freshwater wetlands - construction and planting
#SEP 001	10	Emergent island habitat	Establishment	Construction of new island and shoreline protection of existing islands using dredge material and geo-textile tubes
#SEP 003	5.5	SAV	Restoration	Shoreline erosion protection by planting emergent marsh vegetation (<i>Spartina</i>) and construction of wave breaks
#0122	15	SAV	Restoration	Shoreline erosion protection by planting emergent marsh vegetation (<i>Spartina</i>) and construction of wave breaks
#9906 & #0009	3,773	SAV	Protection	Special protection of seagrass area - designation of "no-prop" zone & public education
#0017	37	Fresh marsh	Restoration	Provide "managed" public access to sensitive wetland areas - construction of boardwalks and trails to keep the public off sensitive habitat
#0120	20	Fresh marsh	Restoration	Provide "managed" public access to sensitive wetland areas - construction of boardwalks and trails to keep the public off sensitive habitat
#SEP 002	5,000	Brackish marsh & adjacent uplands	Protection	Acquisition/perpetual protection of Nueces River Delta wetlands and upland buffer area

III Resources

The CBBEP has been very successful in securing funds from a variety of sources during this report period. This section summarizes the types and sources of funds used for CBBEP operations and projects. For a detailed breakdown of funding by project and action, see Section I – CCMP implementation.

There are many reasons the Program has successfully leveraged funds. An NEP pilot project is underway to record and assess CBBEP leveraged fund amounts and sources. As part of this project, CBBEP resources will be evaluated against a set of criteria to establish guidelines that can be applied universally to NEPs as they solicit and subsequently report leveraged funds to the EPA. It is recognized that the result of this pilot project will require adjustments to the resources as they are reported here.

Notwithstanding this NEP pilot project, the Program has made every effort to record all sources of leveraged funds for this report. In Section I, these funds are differentiated and reported in several ways. Each CBBEP project in Section I separates project funds into two groups – funds which pass through the Program’s accounting system (Program resources) and resources that do not (non-Program resources). The Program resource data was gathered from the CBBEP Project Budget Report (see attachment 7) and Budget Summary Report (see attachment 8), CBBEP Contractors Report (see attachment 9). It should be noted these numbers are subject to change as the Program and the Management Conference periodically assess conditions and funding opportunities. This report represents a snapshot of conditions as they were May 9, 2001.

Non-Program resources represent contributions by other organizations that are not typically captured in the contractual agreement with the project’s performing party. These numbers were generated through interviews with CBBEP Project Managers. In some instances, these contributions are of a known quantity and in others they are based on the Project Manager’s best professional judgment.

a. EPA Funds – Post CCMP

The CBBEP receives approximately \$330,00 per year from EPA §320 funds. These funds can be allocated to critical staff salaries, however they have been used entirely for CCMP implementation projects instead, with the exception of designated EPA travel funds (see attachment 12). This is because of the Program’s success in leveraging funds during the report period. See Section I for detailed descriptions of EPA project allocations. See attachment 12 for breakdown of EPA funded travel expenditures.

b. Other Types and Sources of Funding

As a nonprofit organization the CBBEP benefits from a range of funding opportunities. For example, during this report period the CBBEP successfully secured matching funds, in-kind contributions, special allocations and local contributions totaling approximately \$9,744,000 or 9 times EPA §320 funds. The Program’s success in leveraging funds from governmental agencies, foundations, other NGOs, and industries greatly expanded the number and scope of CCMP projects initiated (see Table 4).

Table 4. Leveraged Funds for FY99, FY00 and FY01.

Organization	Project Match Total	In-Kind Total
<u>STATE</u>		
<i>Texas Parks and Wildlife</i>	\$60,000	
<i>Texas Natural Resource Conservation Commission</i>	\$82,000	\$17,500
<i>Texas General Land Office</i>	\$1,405,000	
<i>Texas Engineering Experiment Station</i>		\$1,218
<i>CMP</i>	\$30,000	
<i>TAMU-Kingsville</i>	\$50,000	
<i>TAMU</i>		\$10,000
<i>Program SEP Funds</i>	\$1,433,180	
<i>Center for Coastal Studies</i>	\$13,514	\$34,820
<u>FEDERAL</u>		
<i>U.S. Fish & Wildlife Service</i>	\$1,050,000	
<i>U.S. EPA - GOMP</i>	\$136,000	
<i>U.S. EPA</i>	\$13,695	\$17,500
<i>Office of Research and Development</i>		\$30,000
<u>LOCAL GOVERNMENTS</u>		
<i>Nueces County</i>		\$50,000
<i>City of Port Aransas</i>	\$323,700	\$7,000
<i>City of Portland</i>	\$15,000	
<i>City of Aransas Pass</i>	\$250,000	
<i>Port of CC</i>		*\$
<i>San Patricio County Drainage District</i>	\$25,000	
<i>City of Corpus Christi</i>	\$85,000	\$99,000
<u>LOCAL (NON-GOVERNMENTAL)</u>		
<i>Various</i>		\$28,619
<i>Land Owners</i>	\$205,000	
<i>Coastal Bend Community Foundation</i>	\$1,600	
<i>Ducks Unlimited</i>	\$150,000	
<i>Blanchmore Foundation</i>	\$1,100	
<i>Texas Audubon Society</i>		\$19,500
<i>The Nature Conservancy</i>	\$325,000	\$80,000
<i>Caesar Kleberg Wildlife Research Institute</i>	\$50,000	
<i>Port Industries of Corpus Christi</i>	\$25,000	\$50,000

Annual contributions from state and local sponsors amounted to \$1,190,000 and constituted the primary source for Program operations during this report period (see Table 5).

Table 5. Annual funding (estimated) from EPA and state and local sponsors.

Organization	Annual Contribution	
EPA Base (CWA 320 funds)	\$330,000	
Federal Base		\$330,000
TNRCC	\$860,000	
City of Corpus Christi	\$75,000	
Port of Corpus Christi Authority	\$75,000	
San Patricio County	\$30,000	
Nueces County	\$75,000	
Port Industries	\$75,000	
Local Match		\$1,190,000
TOTAL Available for Operations		\$1,520,000

c. Current Efforts to Obtain Additional Funding

Obtaining outside funds was particularly fruitful this report period. Over \$5 million in income or matching dollars were secured. The Program's success comes in large part because it seeks opportunities wherever they may arise. Large matching contributions totaling \$3.2 million came from SEP, NAWCA and CEPRA funds. The funding sources for the next implementation review will likely come from other sources.

The CBBEP is in a unique position in the Coastal Bend region. As a nonprofit organization, it leverages money from many sources and has a solid history of completing large projects in a timely manner and on budget. Most importantly, it has managed to walk the fine line between local and state/federal governmental control, between industry needs and resource protection, between economic growth and sustainable development. For these reasons, it is anticipated that while the sources of outside funding may change, the opportunities for the CBBEP will increase.

State funding of the CBBEP and its sister program, the Galveston Bay Estuary Program (GBEP) changed during this report period. The Texas State Legislature approved the Texas Estuaries Act, which recognized the public interest in managing estuarine resources and identified the TNRCC as the lead state agency. It further directed the TNRCC and other state agencies to work with the local implementation organization to achieve this mandate.

As a result of this State Legislation, the Texas NEPs are no longer funded as a “Special Item” in the biennial budget. The TNRCC now integrates NEP support as part of its Water Program budget. The change affords some protection during budget negotiations and while there is no guarantee, it is anticipated that CBBEP funding will continue into the foreseeable future.

Local sponsorship of the CBBEP including annual matching funds is important to the Program. Fiscally, local contributions help stabilize the Program giving it a solid foundation for leveraging other resources. Perhaps more importantly, these contributions foster ownership by the local communities in which the Program operates. This translates into cooperative planning and development of CCMP projects. At a time when local governments struggle to stay fiscally sound, these contributions are even more meaningful. Finally, although it is not possible to predict how local sponsors will meet their fiscal commitments to the Program in the future, it now appears that participating governments and industries see a net positive return on their investment.

IV. Institutional Coordination and Public Involvement

a. Program Staff

During the CBBEP transition to a nonprofit organization, each state agency staff member was offered a position within the new Program. Some elected to stay, others left to pursue professional opportunities outside the Program. The initial staff level was set at 6 FTEs – Program Director, Contracts Manager, Administrative Assistant, and three Project Managers.

During this report period the Program staffing level increased in response to funding opportunities and operational requirements. Two Project Managers were added to focus specifically on the Colonial Waterbird and Avian Resources Project. A Communications Manager was added to enhance the Program's education and outreach efforts. Due to the overwhelming success of the Program to leverage funds, a Business Manager was hired to oversee the varied assets and accounts maintained by the Program. The Program is fully staffed with 10 FTEs. The activities for each position are described below.

Executive Director - Ray Allen

- Responsible for the overall management and planning 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; and
- Ex-officio member of all standing committees.
- FTE Salary: TNRCC grant & local sponsors

Administrative Assistant - Alynn Riley

- Provide administrative support to the Executive Director and staff; responsible for general office operations including telephone and mail routing, meeting schedules and logistical support, external correspondence, office equipment, inventory management and file and database maintenance.
- FTE Salary: TNRCC grant

Business Manager - Gene Knight

- 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 TNRCC and EPA on fiscal matters; responsible for daily business operations including payroll, disbursements, vouchers, payables and receivables.
- FTE Salary: TNRCC grant

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 the Executive Director and Business Manager on contract status.
- FTE Salary: TNRCC grant

Project Managers (3) - Leo Trevino, Terri Nicolau, Kendal Keyes

- Identify research needs, resource management and monitoring projects; identify and/or develop funding sources and partners to further project goals & 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.
- FTE Salary: TNRCC grant

Communications Manager - Isabel Valle-Carpenter

- Coordinate external communications and media relations; responsible for development and implementation of outreach and education strategies; reports to the Executive Director.
- FTE Salary: TNRCC grant

Special Project Managers (2) - Gene Blacklock, Richard Gibbons

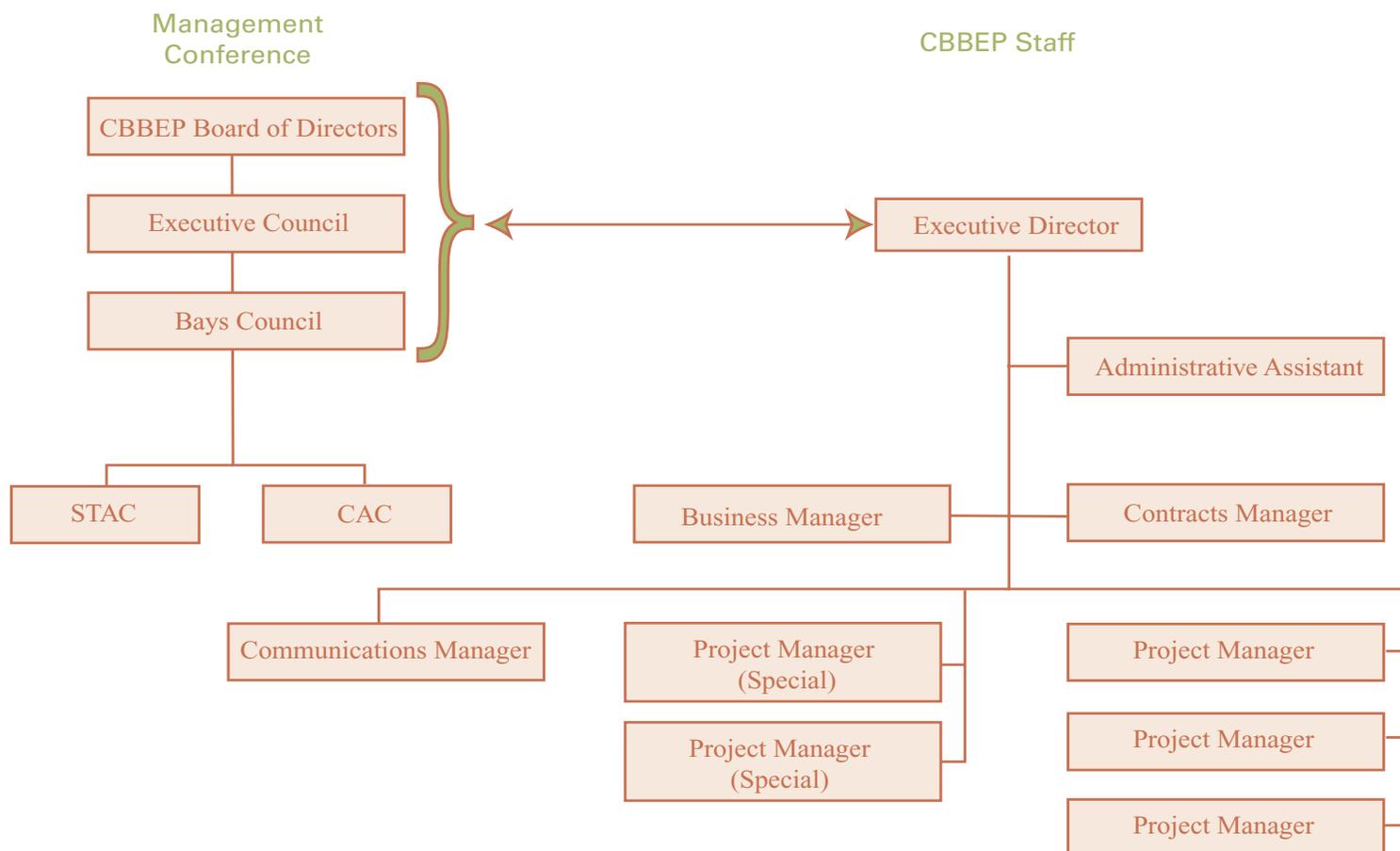
- Work under special arrangements to complete two large projects to develop management strategies for reversing the long-term decline in colonial waterbird populations
- FTE Salary: TNRCC grant (FY00) and EPA GOMP (FY01)

b. Management Conference Structure

The CBBEP is a 501 (c)(3) nonprofit organization, administrated in accordance with its state charter. Governance of the Program is detailed in the CBBEP By-Laws adopted September 7, 1999 (see attachment 10).

The Board of Directors (BOD) is legally responsible for the Program's compliance with laws and regulations applicable to nonprofit organizations. However, Program operations are primarily guided by the Management Conference, which is composed of the Executive Council, the Bays Council, the STAC and the CAC with oversight by the BOD (see Figure 30). Each of the major stakeholder groups in the Coastal Bend are included in the Management Conference including representatives from federal, state, and local governments, business and industry, academia, recreational activities, agriculture, and environmental organizations (see attachment 13).

Figure 30. CBBEP Organization Chart.



Governance of the CBBEP remains largely as it was during the CCMP planning phase, except for the absence of Action Plan Task Forces. Whereas the Policy Committee was responsible for the overall direction of the Program during planning, the Board of Directors performs this function today. The Management Committee was responsible for day-to-day operations during planning, a task that is now performed by the Executive and Bays Council. The STAC and CAC continue to act in an advisory capacity as they did during the planning phase.

This organizational structure has been effective for many of the same reasons that it was during planning. Each body includes representatives from diverse interests and each has a defined role. All Management Conference meetings have been well attended and participation is high.

Project Managers establish Project Advisory Committees (PACs) for CBBEP funded projects on an as-needed basis. PACs are most often formed for scientific or technical projects where members offer their expertise during project development and in reviewing contract deliverables. In this way, PACs function as a peer review team and an information conduit to the STAC and the Management Conference. This structure further enhances coordination of effort by participating partners.

Below is a description of the CBBEP governing bodies.

MANAGEMENT CONFERENCE

Board of Directors

- The seven governing board members represent local governments, industry, and environmental interests. They are composed of: 1) A representative of the Bays Council; 2) A representative of Nueces County; 3) On a rotating basis, a representative from Aransas, Kleberg, or San Patricio Counties (initially chosen by San Patricio, then Kleberg, then Aransas); 4) A representative of the City of Corpus Christi; 5) A representative of the Port of Corpus Christi; 6) A representative of the Coastal Bend Bays Foundation; and 7) A representative of the Port Industries of Corpus Christi. See attachment for a detailed list of current members and affiliations.
- The Board of Directors is responsible for business, property, and fiscal affairs of the Program.

Executive Council

- There are 11 members of the Executive Council representing local governments, industry, elected officials, state and federal agencies, and environmental interests. Permanent seats on the Executive Council include: 1) A representative of the Bays Council; 2) A representative of Nueces County; 3) On a rotating basis, a representative from Aransas, Kleberg, or San Patricio Counties (initially chosen by San Patricio, then Kleberg, then Aransas); 4) A representative of the City of Corpus Christi; 5) A representative of the Port of Corpus Christi; 6) A member of the Texas Legislature chosen by a caucus of the state legislators representing the Coastal Bend Bays & Estuaries program area; 7) A representative of the Environmental Protection Agency; 8) A representative of the Texas General Land Office; 9) A representative of the Texas Natural Resource Conservation Commission; 10) A representative of the Coastal Bend Bays Foundation; and 11) A representative of the Port Industries of Corpus Christi. See attachment for a detailed list of current members and affiliations.

- The Executive Council manages the implementation of the CCMP and oversees the Management Conference.

Bays Council

- The Bays Council is composed of a wide array of stakeholder groups including representatives from participating organizations and others as designated by the Executive Council. See attachment for a detailed list of current members and affiliations.
- The Bays Council oversees the programs, projects and research of the Program with final approval of the Executive Council.

Scientific-Technical Advisory Committee (STAC)

- The STAC is composed of scientists and technical experts from academic and research institutions, local governmental entities, industry, bay user and interest groups, and state and federal agencies. See attachment for a detailed list of current members and affiliations.
- The STAC advises the Bays Council on matters of characterization; research, data management; and modeling, sampling, and monitoring efforts. This committee reviews the development of characterization requests for proposals and the submitted proposals, work plans and work products in addition to any other duties assigned by the Bays Council.

Citizen's Advisory Committee (CAC)

- The CAC is composed of the broadest possible spectrum of user groups and other stakeholders. CAC membership is determined by the Executive Council. See attachment for a detailed list of current members and affiliations.
- The CAC advises the Management Conference on issues addressed by implementing CCMP Actions and the potential impacts on various user groups, private citizens, and other interest individuals/organizations. The CAC solicits public interest and support public participation in the Program, and educate user groups about the bay systems and the purposes and benefits of proposed programs. The CAC shall provide input on program goals and objectives, assist with public participation activities, comment on funding levels and research priorities, and recommend strategies for generating solutions.

c. Public Involvement

Public involvement is a vital element in achieving the Program's long-term goals and objectives. Building on public involvement and support demonstrated during CCMP development, the Program has made significant progress in identifying a constructive role for the public during implementation.

For example, the Program seeks input from a broad range of stakeholders during annual Work Plan development. Although it varies slightly from year to year, the process always includes several opportunities for public involvement. Early opportunities exist for community representatives when the Bays Council, STAC and CAC hold joint meetings to rank proposed projects (see attachments 14). During these meetings, attendees select projects important to their constituency or interest group. This ranking exercise gives public representatives direct input on Work Plan development.

The process of Work Plan development offers more opportunities for public involvement. Community meetings throughout the region are held to solicit comments on proposed projects. Meeting announcements and public invitations are placed in regional newspapers (see attachment 15). Although attendance was light in the past, those present were vociferous in their opinions of proposed projects. These meetings also provided CBBEP staff valuable insight into the public's views.

The 46-member CAC represents the diversity of stakeholders with an interest in estuarine resources (see attachment 13). In keeping with the Program's emphasis on community involvement the CAC functions as an outside voice, independent of regulatory, research, and legislative interests. In that role, the CAC is an active participant in Work Plan development. The group also fosters a two-way communication between the public and the Program. One benefit of this communication is the public's heightened awareness of Program activities and available resources. Increasingly the public is calling directly on the CBBEP to support community projects, provide educational resources and technical information.

d. Changes in Agency Programs and Priorities

Perhaps the greatest impact on other programs during this report period is due to agency participation in RMP development. Every identified organization currently performing monitoring activities will modify their workflow to include data submission to the

CBBEP Information Clearinghouse. Full implementation of the RMP will provide a statistically robust database capable of providing clear environmental trends throughout the region.

Another programmatic change with long-term implications is the development of the Coastal Bend Land Trust (CBLT). Considered throughout CCMP development as a priority action, and critical to the protection of natural resources in perpetuity, the Coastal Bend Bays Foundation elected to establish the land trust. The CBLT has been the recipient of several tracts of land and more are under development. The CBLT is focusing attention on habitats with the greatest need for protection including preservation of urban natural areas. It is conducting an outreach effort to promote a range of opportunities, information and technical support to land owners. As an environmental tool, the CBLT has the potential to effect system-wide benefits for years to come.

V. Technical Assistance and Public Education

a. Types of Technical Assistance

The Coastal Bend demographic landscape is characterized by small- to medium-sized urban areas interspersed between large areas of farm, ranch and rural communities. Many local governments experience fiscal shortfalls even as the demand for services and infrastructure increases. The growing regulatory and environmental issues facing small communities such as stormwater management exacerbate this situation.

As a result, there is a need among local governments for technical assistance. The CBBEP has initiated several projects to address these needs. For example, the Program is working with the Texas A&M University-Corpus Christi, Office of University Outreach to develop stormwater management resources for small communities (see CBBEP projects # 9904, #0018 and #0111). As the number of communities subject to NPDES regulations increases, the handbook of regionally appropriate BMPs generated by this project will be an invaluable resource for public officials.

Another issue facing the Coastal Bend is the alarming number of failing on-site sewage facility (OSSF) systems. Faulty systems threaten both water quality and human health, particularly when they occur near streams or bays. In some rural areas, remediation is hampered by lack of financial resources. The CBBEP is partnering with the Gulf of Mexico Program to assist local governments with repairs or upgrades to failing OSSF systems in priority areas (see CBBEP projects #9907 and #0112).

Optimizing ecotourism while providing managed, environmentally sensitive public access is another challenge faced by local communities. The CBBEP is partnering with numerous organizations on projects to develop a shoreline master plan for Aransas Pass (see CBBEP projects #9902, #9908 and #0006) and improve access to popular visitor sites throughout the region (see CBBEP projects #0017, #0018, #0019, #0120, #0121, #0122 and #0123).

In 1997, the Program published, *Current Status and Historical Trends of Seagrass in the CCBNEP Study Area*. The report details the damage to popular fishing grounds by prop scarring from recreational fishers and boaters. Some of the most productive sport fishing flats are being “loved to death”.

In 1998, a group of concerned citizen's organized and sought support for a plan to protect these valued seagrass beds. The CBBEP worked with local governments, state and federal agencies, interest groups, and citizen stakeholders to implement – on a voluntary basis – no prop zones. This solution, while offering a degree of protection, is not the “marine reserve” originally sought by the project founders. It does however represent a compromise by stakeholders that was only possible through an exhaustive schedule of public meetings and community involvement. Compliance with no-prop zones is enhanced through CBBEP sponsored educational elements including an updated Bay Users Guide (see attachment AA) and educational signage at regional boat ramps (see CBBEP projects #9906 and #0009).

b. Methods of Public Outreach

The CBBEP recognizes the important role of public outreach and many projects have an outreach component as a secondary objective. For example 13 projects initiated during this report period include a public outreach element. Additionally, the CBBEP has initiated development of a public outreach strategy to identify partners, projects and resources.

Presently, two projects with outreach as the primary objective have been identified. The first is a partnership with the City of Corpus Christi to develop a campaign for the general public on nonpoint source pollution prevention. The second is support for a photo contest that emphasizes land stewardship – entrants must submit wildlife shots taken on private lands. For landowners, it is an opportunity to showcase the fruits of their stewardship. The contest recognizes both the landowner and the photographer and each receives a cash prize for winning. But perhaps most importantly, the winners get bragging rights among their peers.

The CBBEP also conducts outreach activities in-house. For example Project Manager Gene Blacklock frequently conducts bird watching classes that include recommendations to avoid impacts to sensitive bird habitats. TNRCC and Program staff maintain the CBBEP Web site which includes reports, newsletters, Program activities and an educational section for children. One newsletter has been published during the report period as well (see attachment I6).

c. Technology Transfer and Information Sharing

One tool being developed for information sharing is the CBBEP Information Clearinghouse. As described in the RMP, the clearinghouse will provide public access to data and information collected by the CBBEP and its partners. It will also support technology transfer by including materials developed for CBBEP projects such as the Bay Users Guide (see attachment I7), the Stormwater Management BMPs booklet and the Aransas Pass Shoreline Management Plan.

The CBBEP facilitates information sharing in many ways. For example, the STAC provides a unique forum for scientific and technical discussions and the as well as the implications for resource management. The PACs also function as a distribution point for technical information when members review and comment on project reports. Finally, scheduled reviews of the RMP provide regional coordination of data and information sharing.

Program staff has been active during this report period, traveling to various meetings, conferences and workshops throughout the region, state and country (see attachment 12).

VI. Program Strengths and Limitations

The CBBEP's primary strength is the number of local sponsors and partners. Without broad participation by local governments, industry, NGOs and private citizens, we would not be able to attract and maintain the level of funding needed to implement the CCMP. We believe that broad support comes from the Program's commitment to involve as many stakeholders as possible in the process of selecting implementation projects for the annual work plans. This keeps the Program's projects and activities focused on both immediate needs and long-term objectives.

Like all NEP's, the CBBEP's ability to implement the CCMP is limited by funding. There are many identified environmental needs, but the resources (dollars and manpower) only go so far. We are pleased to report that cooperation by local governments, state regulatory agencies and landowners has greatly benefited our ability to implement the CCMP. Given that we are in the early years of implementation, we remain optimistic that our efforts over time will continue to be successful.

VII. Feedback on EPA's Involvement

The CBBEP has received significant support for implementing the CCMP from the EPA during this report period. In addition to §320 funds, the EPA has provided valuable technical assistance on a number of CCMP implementation projects. For example, support has come from a number of sources within EPA, including Region 6, EPA headquarters, EPA-ORD, and the EPA Gulf of Mexico Program.

We also appreciate the technical and administrative assistance provided by other NEP's and the Association of National Estuary Programs. The semiannual meetings are an excellent opportunity to network with EPA staff and other NEP's. We have observed that the cumulative benefit of a "few good ideas" gleaned at each meeting is really adding up. In addition, special workshops, such as the NEP Financing Workshop, are worth their weight in gold.

The CBBEP would like to develop a "closer" working relationship with headquarters personnel and would like for EPA staff to visit the project area more frequently. Of course we recognize the expense involved with traveling such a distance and understand that the number of visits to the project area will be limited.

List of Attachments

1. Coastal Bend Bays Plan (book)
2. Implementation Strategy for the Coastal Bend Bays Plan (book - 1 copy)
3. Coastal Bend Bays & Estuaries Program Regional Monitoring Plan
4. FY99 and FY00 Work Plan (combined)
5. FY01 Work Plan
6. Implementation of the Coastal Bend Bays Plan: A Summary Report - January 2001
7. CBBEP Project Budget Report
8. Budget Summary Report
9. CBBEP Contractors Report
10. By-Laws of the Coastal Bend Bays & Estuaries Program, Inc.
11. Coastal Bend Bays & Estuaries Program Data and Information Management System
12. EPA Travel Funds
13. Management Conference Membership
14. Joint STAC/CAC Meeting - Work Plan Project Ranking
15. Town Hall Meetings - Work Plan development
16. Around the Bend Newsletter
17. Bay Users Guide
18. Coastal Bend Bays & Estuaries Program Quarterly Reports: 10/98 - 3/01