

TEXAS COASTAL MANAGEMENT PROGRAM
BIENNIAL REPORT
2013-2014



December 2014

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ACRONYMS



ABNC

Armand Bayou Nature Center

BEG

The University of Texas
Bureau of Economic Geology

CBBF

Coastal Bend Bays Foundation

CCA

Coastal Coordination Act

CCAC

Coastal Coordination Advisory
Committee

CELCP

Coastal and Estuarine Land
Conservation Program

CITs

Coastal Issue Teams

CMP

Texas Coastal Management
Program

CMSP

Coastal and Marine Spatial
Planning

CNRAs

Coastal Natural Resource Areas

Corps

U.S. Army Corps of Engineers

Council

Coastal Coordination Council

CZMA

Coastal Zone Management Act

CZMP

Coastal Zone Management Program

CZMAPMS

Coastal Zone Management Act
Performance Measurement System

FY

Fiscal Year

GBF

Galveston Bay Foundation

GLO

Texas General Land Office

JPAF

Joint Permit Application Form

Land Commissioner

Texas Land Commissioner

NDZ

No Discharge Zone

NERRS

National Estuarine Research
Reserve System

NOAA

National Oceanic and Atmospheric
Administration

NPS

Nonpoint Source

OBA

Texas Open Beaches Act

OCRM

Office of Ocean and Coastal
Resource Management

OSSFs

Onsite Sewage Facilities

PAG

Permitting Assistance Group

PCBs

Polychlorinated Biphenyls

PSC

Permit Service Center

PSM

Projects of Special Merit

SAC

Texas Sunset Advisory Commission

SSCN

Spanish & Science Club Network

TAC

Technical Advisory Committee

TAMUCC

Texas A&M University
-Corpus Christi

TCEQ

Texas Commission on
Environmental Quality

TSSWCB

Texas State Soil and Water
Conservation Board

USFWS

U.S. Fish and Wildlife Service

INTRODUCTION



The Texas coast and adjoining waters support a wealth of economic activities, such as maritime transportation, oil and gas drilling, commercial fisheries, the development of offshore and renewable energy, and recreational boating, bird watching and fishing. As a powerful economic engine and an invaluable environmental treasure, the Texas coast is vital for the success of the state and nation. But our shores face challenges from storms, land loss, population growth and a number of other forces.

Coastal Zone Management Program

In 1972, the U.S. Congress passed the Coastal Zone Management Act (CZMA), which established the federal Coastal Zone Management Program (CZMP). The CZMP is a federal-state partnership that provides a basis for protecting, restoring and responsibly developing the nation's diverse coastal communities and resources.

Coastal Coordination Act

In 1991, the Texas Legislature passed the Coastal Coordination Act (CCA). This addressed the need for a unified and comprehensive approach to the management of coastal natural resources and other complex coastal issues. The CCA called for the development of a program based on previously existing statutes and regulations and directed the Texas General Land Office (GLO) to develop a long-range, comprehensive plan for managing coastal natural resource areas (CNRAs) in cooperation with federal and state agencies, local governments and coastal citizens.

The CCA also (1) set the boundaries of the state's coastal zone to include all or part of 18 coastal counties and more than 8 million acres of land and water; (2) established the framework for a federally approved coastal management program; and (3) created the Coastal Coordination Council (Council) to establish rules for certification of consistency with the goals and policies of the CMP, and to approve CMP funded projects.

In 2010, the Council underwent review by the Texas Sunset Advisory Commission (SAC). The SAC determined that while the state benefits from maintaining a federally approved Coastal Management Program, the Council was no longer needed to administer it. In response to the SAC review, the 82nd Texas Legislature passed, and the Governor signed into law, a bill which abolished the Council and transferred duties to the Texas Land Commissioner (Land Commissioner). This authorized the Land Commissioner to make consistency determinations as required by federal law. The bill also required the Land Commissioner to establish a Coastal Coordination Advisory Committee (CCAC) with representatives from the networked agencies and public members appointed by the Land Commissioner.

Texas Coastal Management Program

The Texas Coastal Management Program (CMP) was finalized in 1997 and accepted into the CZMP by the National Oceanic and Atmospheric Administration (NOAA). The CMP is a networked program that links existing regulations, programs and local, state and federal entities that manage various aspects of coastal resource use. The CMP's mission is to improve the management of the state's CNRAs designated to be of particular concern to the state and

ensure the long-term ecological and economic productivity of the Texas coast.

Coastal Coordination Advisory Committee

The Coastal Coordination Advisory Committee (CCAC) is comprised of eight members representing state agencies and four members representing local government and citizens. The state agencies represented include: the Texas General Land Office, Railroad Commission of Texas, Texas Department of Transportation, Texas Commission on Environmental Quality, Texas Parks and Wildlife Department, Texas State Soil and Water Conservation Board, Texas Water Development Board and the Texas A&M Sea Grant College Program. The Land Commissioner-appointed citizen members represent agriculture, coastal businesses, coastal governments and coastal residents.

In addition to the CCAC members who advise the Land Commissioner on consistency issues when they arise, the Coastal Issue Teams (CITs) were formed to meet on selected subject matter as cross-agency issues arise. CIT members coordinate on issues related to: (1) water quality; (2) CMP grants; (3) CMP coastal long-term planning; and (4) regulatory/permitting. The water quality-CIT is working toward approval of the non-point source program and currently is focusing on several of the four remaining non-point source conditions pending NOAA approval.

The CMP grants CIT continues to provide comments on grant pre-proposals and reviews and scores final grant applications for each grant cycle. The coastal long-term planning CIT members participated in the Resource Management Code (RMC) update and GIS decision support tool development as members of the Data Standards Committee. The regulatory/permitting CIT focuses on federal consistency issues and information exchange on consistency reviews. The CCAC will continue to handle elevated coastal issues that concern multiple CITs and consistency issues that may arise, however, no meetings have been held. The CCAC secretary sends an update to members quarterly.

Coastal Coordination Advisory Committee



Commissioner-appointed committee members include a coastal resident representative, coastal business representative, agriculture representative and a local elected official.

PROGRAM GOALS



Texas Coastal Management Program Goals

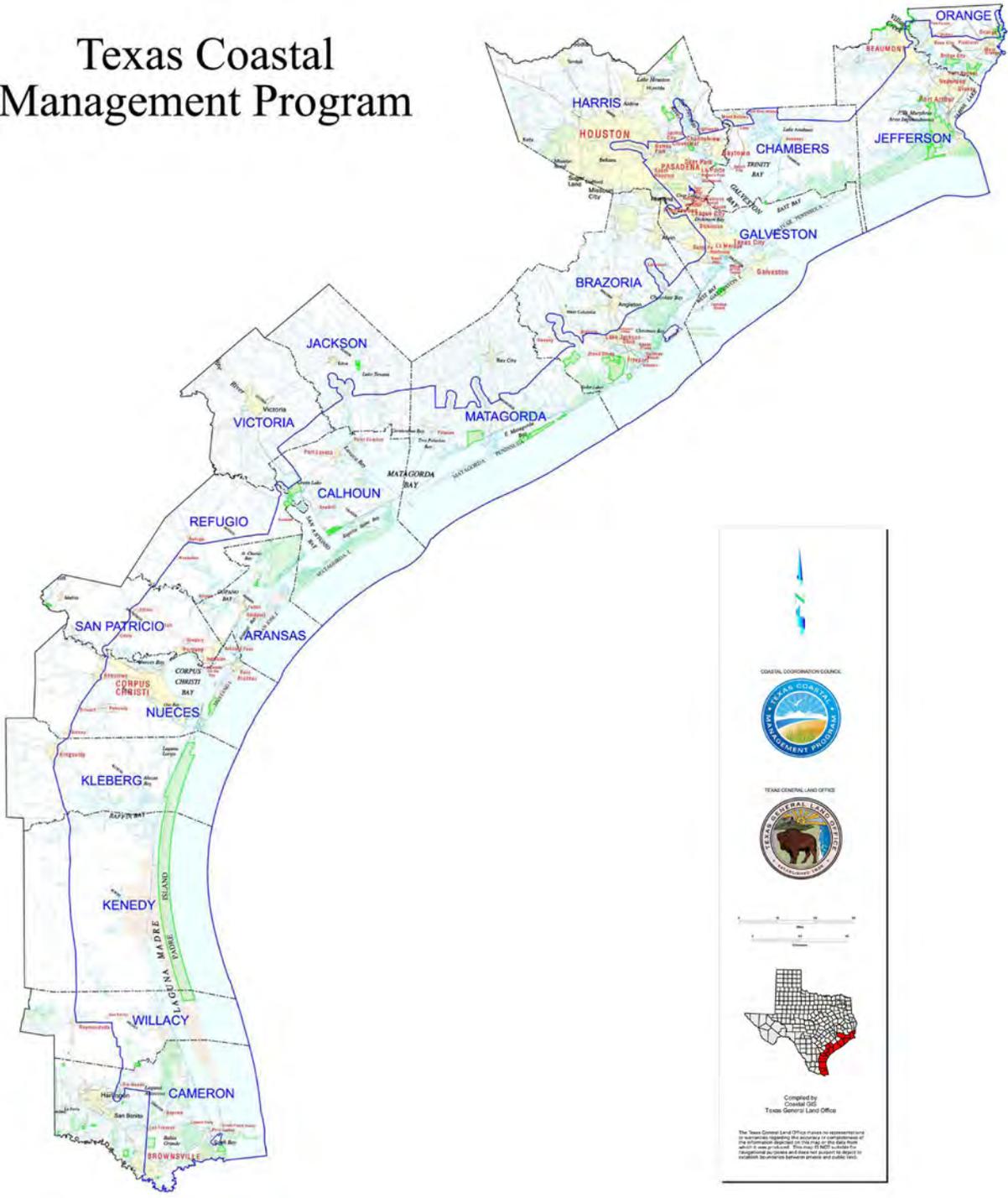
- ◆ to protect, preserve, restore and enhance the diversity, quality, quantity, functions and values of coastal natural resource areas;
- ◆ to ensure sound management of all coastal resources by allowing for compatible economic development and multiple human uses of the coastal zone;
- ◆ to minimize loss of human life and property due to the impairment and loss of protective features of coastal natural resource areas;
- ◆ to ensure and enhance planned public access to and enjoyment of the coastal zone in a manner that is compatible with private property rights and other uses of the coastal zone;
- ◆ to balance the benefits from economic development and multiple human uses of the coastal zone; the benefits from protecting, preserving, restoring and enhancing coastal natural resource areas; the benefits from minimizing loss of human life and property; and the benefits from public access to and enjoyment of the coastal zone;
- ◆ to coordinate agency and subdivision decision-making affecting coastal natural resource areas by establishing clear, objective policies for the management of coastal natural resource areas;
- ◆ to make agency and subdivision decision-making affecting coastal natural resource areas efficient by identifying and addressing duplication and conflicts among local, state and federal regulatory and other programs for the management of coastal natural resource areas;
- ◆ to make agency and subdivision decision-making affecting coastal natural resource areas more effective by employing the most comprehensive, accurate and reliable information and scientific data available and by developing, distributing for public comment, and maintaining a coordinated, publicly accessible geographic information system of maps of the coastal zone and coastal natural resource areas at the earliest possible date;
- ◆ to make coastal management processes visible, coherent, accessible and accountable to the people of Texas by providing for public participation in the ongoing development and implementation of the Texas CMP; and
- ◆ to educate the public about the principal coastal problems of state concern and technology available for the protection and improved management of coastal natural resource areas.



PROGRAM MAP



Texas Coastal Management Program



COASTAL COORDINATION OFFICE



TEXAS GENERAL LAND OFFICE



0 10 20 30 Miles



Compiled by
Coastal GIS
Texas General Land Office

The Texas General Land Office makes no representation or warranty regarding the accuracy or completeness of the information depicted on this map or the data from which it was produced. However, GLO will endeavor to maintain the information between private and public land.

COORDINATING PARTNERSHIPS



The CMP serves as an umbrella for the management of coastal resources along the Texas coast. Through networking with the state natural resource agencies and other entities, effective protection, restoration and enhancement of CNRAs can be accomplished. Below are examples of CMP partnerships with other programs throughout the Texas coastal zone.

Coastal Impact Assistance Program

The Energy Policy Act of 2005 authorized the Coastal Impact Assistance Program (CIAP), which is administered by the U.S. Fish and Wildlife Service and the GLO. CIAP is funded with \$109,269,690 of federal royalties from offshore oil and gas leases to assist states that have either supported or been impacted by oil and gas exploration and development along the Outer Continental Shelf (OCS). CIAP funds are used for projects and activities for the conservation, protection or restoration of coastal areas, including wetlands; mitigation of damage to fish, wildlife or natural resources; planning assistance and administrative costs; implementation of a federally approved marine, coastal or comprehensive conservation management plan; and mitigation of the impact of OCS activities through funding of onshore infrastructure project and public service needs.

Coastal Erosion Planning and Response Act Program

In 1999, the Texas Legislature established the Coastal Erosion Planning and Response Act (CEPRA) program to reduce and minimize erosion impacts to public beaches and dunes, wetlands, the Gulf Intracoastal Waterway, homes, businesses and public infrastructure, thereby protecting the state's natural resources and economic future. As a cost-sharing program, CEPRA provides funding to leverage federal, state, local and private resources. The CEPRA program contributes up to 75 percent of the funding for Texas beach nourishment and dune restoration projects, and 60 percent for wetland and habitat restoration projects, shoreline protection projects and erosion studies.

Beach and Dune Program

The Beach and Dune Protection Program enforces the Open Beaches Act, Dune Protection Act and related administrative rules to ensure protection of CNRAs and accessibility for all beach users.

Texas BeachWatch Program

The Texas BeachWatch Program is funded by the U.S. Environmental Protection Agency (EPA) to monitor water quality at



Texas recreational beaches. Results of water sampling and advisories are posted on the Texas BeachWatch website at www.TexasBeachWatch.com.

Texas Coastal Ocean Observation Network

In partnership with the U.S. Army Corps of Engineers (USACE) and the Texas Water Development Board (TWDB), the GLO contracts with Texas A&M University–Corpus Christi to maintain and operate a state-of-the-art electronic water level monitoring network. The information collected assists coastal communities in preparing for hurricanes and tropical storms, and assists the GLO in determining state-owned lands and for modeling tides and currents during oil spills.

Gulf of Mexico Energy Security Act Program

To enhance the OCS oil and gas leasing activities and revenue sharing in the Gulf of Mexico, the Gulf of Mexico Energy Security Act (GOMESA) was signed into law in 2006. Alabama, Louisiana, Mississippi and Texas share lease revenues for coastal restoration and conservation projects, as well as for hurricane protection. The GLO administers the Texas funds for projects along the Texas coast.

One example of a large partnership success story is the Cedar Bayou/Vinson Slough Restoration project. This project was a partnership with the Texas Parks and Wildlife Department, Coastal Conservation Association and Aransas County to straighten Cedar Bayou and connect it with a channel from Vinson Slough near the beach of San Jose Island. This project re-establishes the hydraulic connection between the Gulf of Mexico and the Aransas/Mesquite bay system and the life-cycle migration route for a variety of marine species as well as the tidal flow to thousands of acres of tidal wetlands adjacent to Cedar Bayou and Vinson Slough.

Interagency Coordination Teams

The Interagency Coordination Team (ICT) concept was originally developed by USACE in the early 1990s as part of the Houston-Galveston Navigation Channel (HGNC) Expansion Project which involved deepening and widening the Houston Ship Channel and finding beneficial uses for the dredged material. The HGNC ICT, which consisted of state and federal resources agencies and the Port of Houston Authority, was created to address key environmental issues and concerns associated with the project. Other non-governmental organizations such as the Galveston Bay Foundation and special interests including local residents, commercial fishermen and recreational boaters participated in ICT meetings by providing advice and feedback. In order to find solutions to key issues associated with the HGNC Project, the ICT formed several subcommittees, composed of ICT members with scientific expertise in different environmental disciplines. Subcommittees include the Beneficial Uses Group (BUG), Oyster Committee, Cumulative Impacts Group and Benthic Recovery Group, among others. The BUG continues to meet as needed to monitor the progress of marsh restoration sites created from material dredged from the navigation project.

The success of the HGNC ICT led USACE to form additional ICTs for other large and potentially controversial projects such as: the Gulf Intracoastal Waterway (GIWW) Laguna Madre maintenance dredging; GIWW Welder Flats-Aransas National Wildlife Refuge whooping crane habitat protection; Corpus Christi Ship Channel Improvement Project; Sabine-Neches Waterway Improvement Project; and Sabine Pass to San Luis Pass Shoreline Erosion Project.

HIGHLIGHTS & SIGNIFICANT EVENTS



CMP 312 Review

In 2014, the CMP underwent the periodic NOAA Section 312 review that covered the period from 2007 through 2014 and involved reviews of the program, successes, challenges and future planning efforts. The review involved several meetings held through Web-based interviews with coastal partners, face-to-face meetings, and a public meeting in Corpus Christi. The GLO is waiting for the final findings document from NOAA. Preliminary conversations with NOAA have been positive regarding the review.

CMP Rule Revisions

GLO staff members have made significant progress revising and updating the CMP rules and procedures in Title 31 of the Texas Administrative Code (TAC), Chapters 501-506, to reflect the abolition of the Coastal Coordination Council and transfer of Council functions to the GLO and the Land Commissioner. Draft rule changes to 31 TAC Chapters 501-505 have been circulated within the agency for review and discussion, and the draft rule changes were further reviewed in the summer of 2014 and discussed by members of the CCAC. The GLO published the proposed rule changes to Chapters 501-505 for public review and comment in the Texas Register. GLO staff members continue to work on proposed revisions to the federal consistency procedures in 31 TAC Chapter 506, and plan to complete draft rule changes to Chapter 506 over the course of the next year in consultation with NOAA.

83rd Legislature (2013)

HB 3459, relating to access to and protection of certain coastal areas, established provisions governing the determination of the boundaries of public beaches and the enforcement of the law governing access to them. This bill amended the OBA to allow the Land Commissioner by order to suspend action on conducting a line of vegetation determination for a period of up to three years from the date the order is issued if the Land Commissioner determines that the line of vegetation was obliterated as a result of a meteorological event. During the moratorium, the landward boundary of the public beach will be set at 200 feet from mean low tide. Following the expiration of the moratorium, the Land Commissioner will determine the location of the line of vegetation, taking into account any effect of the storm on the line of vegetation, and may consult with the Bureau of Economic Geology of the University of Texas and consider other factors regarding the natural erosion rate for the affected area when making the line of vegetation determination. HB 3459 also clarified that the line of vegetation for an area of public beach in which there is no clearly marked line of vegetation is dynamic and may move landward or seaward due to the forces of erosion or natural accretion. Finally, the bill added to the list of artificial changes to natural vegetation that do not affect the line of vegetation of a public beach.

HB 2623, relating to the authority of certain counties and the GLO to temporarily close a beach or beach access point, established health and safety provisions for beaches in proximity to a space launch site. The bill applies only to a county bordering on the Gulf of Mexico or its tidewater limits that contains a launch site approved by the Federal Aviation Administration. HB 2623 amended the OBA to grant the GLO the authority to allow the county

commissioners court to close a beach and beach access points during space flight activities to protect public health and safety. The legislation requires GLO approval before the county commissioners court may close a beach or beach access point on a primary launch date that falls on certain holidays or weekends.

HB 1044, relating to the operation of all-terrain vehicles and recreational off-highway vehicles, established provisions governing the operation of such vehicles on public and private beaches along the seaward shore of the Gulf of Mexico. This bill amended the OBA and certain sections of the Transportation Code to authorize the use of an all-terrain vehicle, commonly referred to as an “ATV” or “four wheeler,” or a recreational off-highway vehicle, commonly referred to as “utility type vehicles” or “UTVs,” if the vehicle is registered and the operator possesses the proper license. The legislation also authorizes the Texas Department of Transportation (TxDOT) or a county or municipality to prohibit the operation of an all-terrain vehicle on a beach if TxDOT or the governing body determines that the prohibition is necessary in the interest of safety.

HB 622, relating to the report by the GLO to the Legislature on the effectiveness of the CMP, amended the Coastal Coordination Act to change the annual report that was required to be submitted to the Legislature to a biennial report.

Upcoming: 84th Legislature (2015)

The 84th session of the Texas Legislature will begin on January 13, 2015. At this time, the GLO is not anticipating any significant legislation relating to the OBA, DPA, or Coastal Coordination Act.

Government Accountability Office Review

A fiscal year 2013 congressional appropriations committee report mandated the Government Accountability Office (GAO) to review NOAA’s implementation of the CZMA. The review examined (1) how states allocated CZMP funds awarded in fiscal years 2008 through 2013 and (2) how NOAA’s primary performance assessment tools have changed since the GAO’s 2008 report and the extent to which NOAA uses performance information

in managing the CZMP. The GAO reviewed laws, guidance and performance-related reports; analyzed CZMP funding data for fiscal years 2008-2013; and interviewed NOAA officials and a sample of officials from seven states selected for receiving the most fiscal year 2012 funding in each of NOAA’s regions. Texas was one of the states visited. GLO staff took GAO staff to visit successful projects along the Texas coast. The GAO was very impressed and appreciative of GLO efforts.

The GLO continues to work on making changes to the Texas Administrative Code (TAC) to reflect the abolition of the Coastal Coordination Advisory Council. The GLO staff is writing the new language that needs to be incorporated and has looked at how other states have crafted their administrative rules.



PROGRAM BUDGET



Each year, the GLO receives approximately \$2.5 million under the CZMA to implement the state's coastal program. The CZMA provides funding for three programs: the coastal resource improvement program (§306/§306A), the program enhancement program (§309), and the state's coastal nonpoint source pollution (NPS) control program (§310). The state is required to match the §306/§306A and §310 funds at a 1:1 ratio; however, a match is not required for §309.

The state received \$2,327,500 of §306/306A and §309 funding from NOAA in FY 2013 and \$2,512,000 in FY 2014 to administer the CMP. Approximately 90 percent (\$3,347,513) of the §306/§306A funding (\$3,868,500) was awarded to eligible entities for coastal projects through a competitive grant process. Grant subrecipients were required to match 50 percent of the amount requested; however, the state provided 10 percent of that match to lower the subrecipient match to 40 percent. The state retained approximately 10 percent (\$520,987) for program administration, matching this amount with salaries, fringe benefits and indirect costs.

FY 2013			
§306/§306A	State	Subrecipients	Total
Federal Amount Awarded	\$250,127	\$1,626,373	\$1,876,500
State/Subrecipient Match	\$610,089	\$1,266,411	\$1,876,500
Subtotal	\$860,216	\$2,892,784	\$3,753,000
§309	State	Subrecipients	Total
Federal Amount Awarded	\$451,000	\$0	\$451,000

FY 2014			
§306/§306A	State	Subrecipients	Total
Federal Amount Awarded	\$270,860	\$1,721,140	\$1,992,000
State/Subrecipient Match	\$693,692	\$1,298,308	\$1,992,000
Subtotal	\$964,552	\$3,019,448	\$3,984,000
§309	State	Subrecipients	Total
Federal Amount Awarded	\$520,000	\$0	\$520,000

PROGRAM OVERVIEW



The CZMA provides for states to operate their coastal management programs through a single permitting agency or by coordinating existing regulatory authorities through a networked program. Texas chose to combine existing regulatory authorities and build on the strength of those authorities utilizing the networked program approach.

CMP is intended to make coastal decision-making processes more effective and efficient. Each networked agency ensures its proposed actions that may adversely affect CNRAs are consistent with the goals and policies of the CMP, through the exercise of statutory authorities. The CCA requires networked agencies and subdivisions to comply with a uniform set of program goals and policies when conducting activities in the coastal zone.

Consistency Review

The consistency review process ensures the actions of state and federal agencies and limited local government actions are consistent with the goals and policies of the CMP. Three consistency review components exist in the CMP: local consistency, state consistency and federal consistency.

Local Consistency Review

The issuance of dune protection permits and beachfront construction certificates are the only local government actions that may adversely affect CNRAs. Local government beach/dune permitting authorities that have certified or conditionally certified dune protection and beach access plans are responsible for issuing dune protection permits and beachfront construction certificates for construction activities in the beach/dune system.

The Land Office reviews all dune protection permits and beachfront construction certificate applications to ensure compliance with the Texas Open Beaches Act, Dune Protection Act, and the GLO Beach Access and Dune Protection Rules. Permitted construction activities must be consistent with the goals and policies of the CMP. For dune



protection permits, local governments must certify that the proposed activity will not materially weaken any dune, materially damage any dune vegetation, or reduce the effectiveness of any dune as a means of protection against erosion and high wind and water. For beachfront construction certificates, local governments must certify that the proposed activity is consistent with the beach access portion of the approved dune protection and beach access plan and determine that the activity does not interfere with or otherwise restrict the public's right to have access to and from the gulf beach.

The GLO reviewed 418 permits in FY 2013 and 411 permits in FY 2014.

State Consistency Review

The CMP provides interagency coordination on significant policy issues and major coastal development projects, allowing the networked agencies to manage their own programs on a day-to-day basis. Certification of an agency's rules is the primary tool for ensuring a networked agency's rules governing actions subject to the CMP are consistent with the program. Because an agency must comply with its own rules, incorporating the goals and policies into agency rules helps ensure the agency will exercise its networked authorities consistent with the CMP. If an agency's rules are consistent, then its activities should be consistent.

Once an agency's rules are certified, the agency can adopt consistency review thresholds limiting the CMP's authority to review its actions. The agencies are responsible for enforcing the provisions of the CMP and are authorized to enforce the permits or authorizations issued.

Networked agencies are those with activities or rules that affect or protect CNRAs. The affected state agencies include the GLO, the Public Utility Commission of Texas (PUC), the Texas Historical Commission (THC), the Texas State Soil and Water Conservation Board (TSSWCB), the Railroad Commission of Texas (RRC), the Texas Commission on Environmental Quality (TCEQ), the Texas Department of Transportation (Tx-DOT), and the Texas Parks and Wildlife Department (TPWD).

During FY 2013 and FY 2014, the GLO received quarterly reports from the networked state agencies for permitting actions, rulemakings and enforcement actions.

FY 2013

In FY 2013, the reporting state agencies received 1,864 permitting applications. 1,049 were approved without conditions, and 250 were approved with conditions during this time period. The state agencies submitted and adopted 18 rulemakings. In addition, the state agencies reported undertaking 590 enforcement actions.



FY 2014

During FY 2014, the GLO received quarterly reports from the networked state agencies for permitting actions, rulemakings and enforcement actions. The reporting state agencies received 2,297 permitting applications of which 1,765 were approved without conditions, and 99 were approved with conditions. The state agencies submitted and adopted 20 rulemakings. In addition, the state agencies reported undertaking 427 enforcement actions.

Federal Consistency Review

Approval of the CMP gave Texas the authority to review proposed federal actions and activities that are located in or may affect land and water resources in the Texas coastal zone. This process, called federal consistency review, ensures the state's interest is fairly represented and allows the state the opportunity to provide input into policies, procedures, or actions and activities that may affect the management of coastal areas, including:

- ◆ Projects requiring a federal license or permit,
- ◆ Direct activities proposed by federal agencies, and
- ◆ Federal financial assistance to state and local governments.

Federal actions and activities within or outside the Texas coastal zone that affect CNRAs must be consistent with enforceable policies of the CMP to the maximum extent practicable. If the state finds a given action or activity to be inconsistent, with a few exceptions the action cannot be undertaken.

Federal actions and activities are evaluated for potential impacts to CNRAs. During FY 2013 and FY 2014, all of the proposed federal agency actions, activities or financial assistance projects reviewed by staff and considered by the Land Commissioner were deemed consistent with CMP goals and policies.

Through the consistency and regulatory permitting Coastal Issue Team (CIT), calls were held on the application of Reverser, LLC, for a U.S. Army Corps of Engineers (USACE) Section 10 Rivers and Harbors Act permit (SWG-2005-00552) for a canal subdivision on Mustang Island, submitted in January 2014. The CIT had concerns regarding the project, which resulted in three Coastal Coordination Advisory Committee (CCAC) members referring this project to the Land Commissioner for further consistency review and a final consistency determination. A hearing for the consistency review was set for June 10, 2014. However, approximately one week before the hearing, the USACE determined that additional wetlands existed at the site and that the project would have to be reevaluated under Section 404 of the Clean Water Act. The USACE suspended review of the project pending additional information from the applicant. The applicant withdrew its CMP consistency statement and the hearing was canceled.

The public is encouraged to participate in the consistency review process using the Texas Register notification system and through the GLO's Internet site at <http://www.glo.texas.gov/GLO/public-notices/index.html>.

Federal Agency Actions

A federal agency action is a federal license or permit issued by a federal agency that represents the proposed federal authorization, approval or certification needed by the applicant to begin an action. For example, a USACE permit for construction of a pier or boat dock is considered a federal action. During federal FY 2013 (October 2012 - September 2013), the GLO reviewed a total of 253 actions requiring a federal license or permit. During federal FY 2014 (October 2013 - September 2014), a total of 294 actions requiring a federal license or permit were reviewed.

Federal Agency Activities and Development Projects

A federal agency activity is a function performed by or for a federal agency in exercise of its statutory responsibility. This includes the planning, construction, modification, or removal of a public work, facility, or any other structure, and the acquisition, use or disposal of land or water resources. For example, maintenance dredging of a navigation channel or changes in federal permitting processes are considered federal activities. The GLO reviewed 14 federal activities for consistency during FY 2013 and four federal activities for consistency during FY 2014.

Federal Funding Assistance

Financial assistance projects are state or local projects that receive federal funding in the form of grants, contractual agreements or loans. For example, a request for funding for a flood control project is considered a request for financial assistance. Federal agencies may not grant federal assistance until the state CMP concurs. The GLO reviewed 285 financial assistance projects in FY 2013 and 649 financial assistance projects in FY 2014.

Permitting Assistance

Permit Service Center (PSC) staff, along with state and federal resource agency representatives, routinely attend monthly Joint Evaluation Meetings (JEMs) sponsored by the USACE. These meetings are designed to provide guidance to applicants on CMP policies and agency permitting requirements.

Permitting Assistance Group

The Permitting Assistance Group (PAG) was formed to: identify and address permitting obstacles; encourage inter-agency cooperation; offer the public a one-stop-shop for project-specific advice while navigating the permit application process; and serve as a liaison to the CCAC on permitting issues. The PAG is comprised of CCAC members and representatives of federal and state agencies that participate in the permitting process as applicants, permitting entities or commenters.



The PAG did not meet in FY 2013 or 2014. Following the abolition of the Council and transfer of its functions to the Land Commissioner, the regulatory and permitting Coastal Issue Team met and deemed that no changes should be made. It should continue to address requests for preliminary consistency determinations. However, a regulatory work group was established and has met as needed to discuss various issues, such as jurisdictional issues, CMP determinations for larger projects that are structures only (no fill), etc.

Joint Permit Application Form

Overlapping jurisdiction between the USACE and state agencies resulted in redundancies that created a complicated application process for common projects, such as residential piers or placement of fill material to construct a building. To mediate the prob-

lem, Joint Permit Application Forms (JPAFs) were created to obtain permits/authorizations from multiple agencies. JPAFs reduce confusion among applicants regarding what permits are necessary for a project, speed the permitting process by serving as a clearinghouse for coastal permitting activities, and simplify the process by providing a consolidated permit application to be simultaneously distributed to the authorizing agencies complete.

Permit Service Center

Permit Service Center (PSC) staff, acting as the point of contact for the Individual and Small Business Permitting Assistance Program, assists applicants in submitting administratively complete applications and improves the efficiency of the permitting process by troubleshooting applications before submission to the regulatory agencies. This has allowed permitting authorities to reduce processing time and ensure more efficient review of permits.

The number of JPAFs can be attributed to the continuation and expansion of the Structure Registration/General Permit (SR/GP) agreement between the USACE Regulatory Branch and the GLO's Professional Services Division. During the FY 2013 reporting period, the PSC assisted with 151 JPAFs and 127 JPFAs in FY 2014. The processing time per application averaged 2.5 days and included logging information, reviewing the application for completeness, and forwarding it to the appropriate state/federal agency for formal permit evaluation. The processing time per application has been reduced from previous years.

FY 2013 and 2014 JPAFs Received (by Quarter)		
Quarter	FY 2013	FY 2014
1	35	21
2	33	36
3	36	30
4	47	40
Total	151	127

Permit Service Center Locations and Contact Information

Permit Service Center (Upper Coast)
 Texas A&M University-Galveston
 Powell MERC Bldg., 3027, Suite 135
 P.O. Box 1675
 Galveston, TX 77553-1675
 Toll-free: (866) 894-7664
 Phone: (409) 741-4057
 Fax : (409) 741-4010

Permit Service Center (Lower Coast)
 Texas A&M University-Corpus Christi
 6300 Ocean Drive, TAMU-CC
 Carlos F. Truan Natural Resources Center, Ste 2800
 Corpus Christi, TX 78412-5848
 Toll-free: (866) 894-3578
 Phone: (361) 825-3050
 Fax: (361) 825-3040

permitting.assistance@glo.texas.gov
www.glo.texas.gov/psc

Texas Coastal Nonpoint Source Pollution Control Program

The Texas Coastal Nonpoint Source Pollution Control Program is required as part of having a federally approved Coastal Management Program. The purpose of the program is to identify sources of coastal nonpoint source (NPS) pollution and develop recommendations for preventing it. The program was conditionally approved by the NOAA and EPA, as four outstanding management measures remain to be approved.

These management measures are:

- ◆ New and on-site development;
- ◆ Watershed protection and existing development;
- ◆ New and operating onsite disposal systems; and
- ◆ Roads, highways, and bridges

The Coastal Management Program and networked water quality agencies continue working to achieve full implementation and approval of the program with existing resources, though federal funding for this program has not been made available. In 2013, a grant project was awarded through the Coastal Management Program's Coastal Impact Assistance Program to the University of Texas at Austin's Center for Research in Water Resources to facilitate effective implementation of coastal stormwater best management practices (BMP) for off-system roadways and urban development. A BMP technical guidance document was developed and implementation outreach, such as stakeholder training and planning assistance, was provided.

The project identified jurisdictions responsible for managing coastal roadways and urban stormwater systems, conducted outreach targeting the identified coastal jurisdictions, developed an inventory of existing management practices and watershed characteristics, and provided technical guidance, training and planning assistance to these jurisdictions. The project is in its final phase and will be completed by June 2015. Further information and the stormwater BMP guidance document can be found on the project website at txcoastalbmp.org.



Staff is meeting regularly with the water quality CIT to move forward on the “new and operating onsite disposal system” condition. A draft scope of work to identify all septic systems along the coast and to begin prioritizing inspections was submitted to the EPA and NOAA for an informal review as an effort to begin working more closely on this initiative.

Program Changes

On December 6, 2013, the GLO formally submitted routine program changes to NOAA’s Office of Ocean and Coastal Resource Management (OCRM) that included particular statutory and rule revisions enacted and adopted during the period of January 1, 1997 – December 31, 2011. Concurrent with notifying and submitting the routine program changes to OCRM, the GLO provided notice of the submittal to the general public and affected parties (including local governments, state agencies and federal agencies) by posting a public notice on the GLO’s website, emailing stake-



holders and publishing a public notice in the December 6, 2013, issue of the Texas Register. All public notices included the program change document or referenced its location on the GLO’s website at <http://www.glo.texas.gov/what-we-do/caring-for-the-coast/grants-funding/cmp/> to allow agencies, stakeholders and members of the public to review the changes and provide comments.

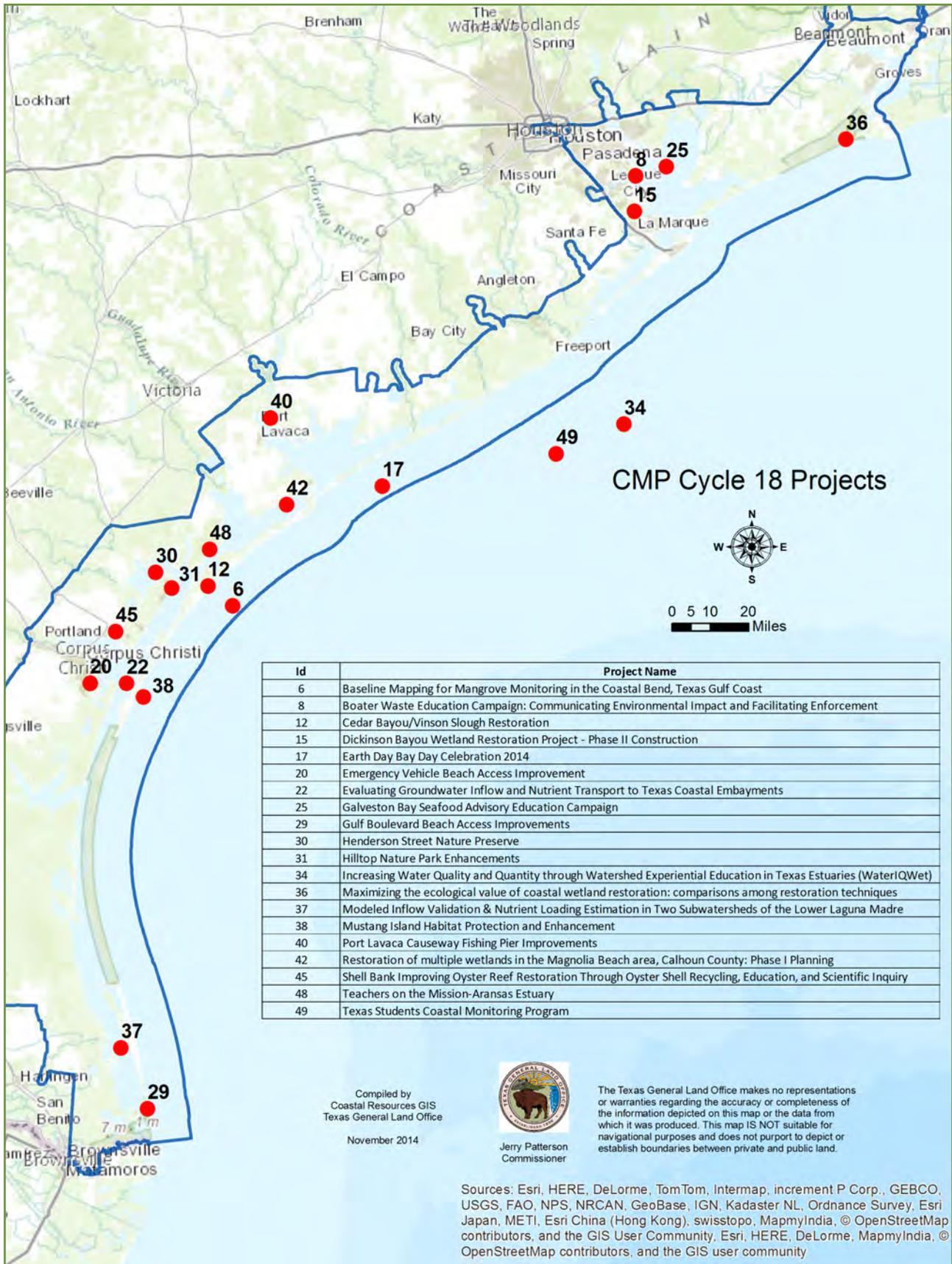
On January 27, 2014, the OCRM formally concurred with the GLO’s routine program changes determination and approved the incorporation of particular changes as enforceable and non-enforceable policies of the CMP. OCRM also recognized the incorporation of changes to various statutes that the GLO included in the program change document. A comprehensive list of the approved program changes, which was an enclosure to OCRM’s concurrence letter, was published with the public notice of OCRM’s approval in the March 7, 2014 issue of the Texas Register. The notice of OCRM’s approval and enclosure to its concurrence letter was also posted to the GLO’s website.

GRANTS



Funding Breakdown

County	Cycle 18/FY13	Cycle 19/FY14	Total
Aransas	\$248,804.00	\$94,924.00	\$343,728.00
Brazoria	\$0	\$0	\$0
Calhoun	\$117,630.00	\$0	\$117,630.00
Cameron	\$398,440.00	\$627,385.00	\$1,025,825.00
Chambers	\$0	\$0	\$0
Galveston	\$268,330.00	\$182,946.00	\$451,276.00
Harris	\$0	\$225,148.00	\$225,148.00
Jackson	\$0	\$0	\$0
Jefferson	\$0	\$0	\$0
Kenedy	\$0	\$0	\$0
Kleberg	\$0	\$76,801.00	\$76,801.00
Matagorda	\$0	\$0	\$0
Nueces	\$257,678.00	\$198,483.00	\$456,161.00
Orange	\$0	\$0	\$0
Refugio	\$0	\$0	\$0
San Patricio	\$0	\$0	\$0
Victoria	\$0	\$0	\$0
Willacy	\$0	\$0	\$0
Coastwide	\$161,834.00	\$197,596.00	\$359,430.00
Lower Coast	\$69,567.00	\$117,857.00	\$187,424.00
Upper Coast	\$104,090.00	\$0	\$104,090.00
Total	\$1,626,373.00	\$1,721,140.00	\$3,347,513.00



Cycle 18 Projects

Aransas County

Cedar Bayou/Vinson Slough Restoration

Aransas County will straighten Cedar Bayou and connect it with a channel from Vinson Slough near the beach of San Jose Island. The combined flow of a single channel will add velocity to the last leg of the bayou as it empties into the gulf. This will re-establish the hydraulic connection between the Gulf of Mexico and the Aransas/Mesquite bay system and re-establish the life-cycle migration route for a variety of marine species, as well as enhance tidal flow to thousands of acres of tidal wetlands adjacent to Cedar Bayou and Vinson Slough.

CMP Funded: \$200,000
Match: \$133,333
Total Project: \$333,333
Contact: David Reid
1931 FM 2165
Rockport, Texas 78382
361.790.0152

Henderson Street Nature Preserve

Aransas County will increase habitat diversity on the property with aquatic habitat enhancements, grassy swales, low-impact development techniques that harvest and beneficially use runoff, and other features intended to attract birds and other wildlife. The Henderson Street Habitat Preserve will provide coastal natural resource protections with significant conservation, ecological, aesthetic and water quality values.

CMP Funded: \$98,804
Match: \$65,869
Total Project: \$164,673
Contact: Richard Thompson
1931 FM 2165
Rockport, Texas 78382
361.790.0194



Brazoria County

Geological Framework Study for Folletts Island

Texas A&M University at Galveston will conduct a Geological Framework Study of Folletts Island and develop the data set that will be used to develop a process-based numerical model to predict future beach erosion and morphological changes on Folletts Island under various storm and hurricane conditions. This study will include the collection of ultra high resolution swath bathymetry of the gulf-side of Folletts Island from 10 to 30 feet of water and a series of high resolution beach profiles from the dry beach out to the 12 feet water depth to merge with the swath bathymetry.

CMP Funded: \$62,396
Match: \$41,597
Total Project: \$103,993

Contact: **Timothy Dellapenna**
P. O. Box 1675
Galveston, Texas 77554
409.740.4952

Calhoun County

Port Lavaca Causeway Fishing Pier Improvements

City of Port Lavaca will complete the last phase of the reconstruction of the Port Lavaca Causeway Fishing Pier at Lighthouse Beach by constructing a lighted, 500-square-foot T-head at the bay end of the pier. This project will mark the final “pier partnership” between the Texas CMP and the City that began in Cycle 8 and continued each year through Cycle 15 ultimately constructing 904 linear feet of 10-foot-wide replacement fishing pier.

CMP Funded: **\$60,000**
Match: **\$40,000**
Total Project: **\$100,000**
Contact: **Darren Gurley**

202 N. Virginia Street
Port Lavaca, Texas 77979
361.552.3347

Restoration of Multiple Wetlands in the Magnolia Beach Area, Calhoun County: Phase I Planning

Texas AgriLife Research will produce a shovel-ready construction and financing plan for restoration in the interconnected wetlands in Calhoun County, Texas. A large expanse of degraded wetlands stretches from Magnolia Beach to Indianola in Calhoun County. The wetlands are hydrologically connected, yet suffer due to a lack of tidal flow at various points in the tidal channel network. The wetlands extend across multiple properties, agencies and jurisdictions, and thus restoration will require a concerted effort that involves all of the parties.

CMP Funded: **\$57,630**
Match: **\$38,394**
Total Project: **\$96,024**
Contact: **Rusty Feagin**

1500 Research Pkwy., Ste. B223
College Station, Texas 77845
979.862.2612

Cameron County

Emergency Vehicle Beach Access Improvement

City of South Padre Island will install a permanent structure to support emergency vehicles access to eliminate the low elevation caused by the vehicular traffic thus eliminating another vulnerable point in the City’s continuous dune line to storm surge. These improvements will reduce the threat to private property and public infrastructure which is the main component of its Erosion Response Plan.

CMP Funded: **\$150,000**
Match: **\$150,000**
Total Project: **\$300,000**



Contact: **Reuben Trevino**
4601 Padre Blvd
South Padre Island, Texas 78597
956.761.3035

Gulf Boulevard Beach Access Improvements

City of South Padre Island will increase the number of public parking spaces immediately adjacent to the beach by maximizing the use of the entire 75-foot right-of-way, which has not been completely utilized in the past. This will help the City to provide a parking space for every 15 linear feet of closed beach as required in TAC §15.7(h)(1)(A).

CMP Funded: **\$150,000**
Match: **\$171,886**
Total Project: **\$321,886**
Contact: **Reuben Trevino**
4601 Padre Blvd
South Padre Island, Texas 78597
956.761.3035

Modeled Inflow Validation & Nutrient Loading Estimation in Two Subwatersheds of the Lower Laguna Madre

University of Texas - Pan American will characterize nutrient loading rates into the Lower Laguna Madre for subwatersheds by monitoring stream flow and water quality (particularly total nitrogen and phosphorus). This information will be used to evaluate Texas Rainfall-Runoff model performance in estimating ungauged inflows and to establish a relationship between ungauged inflows and nutrient loading regimes to the Lower Laguna Madre.

CMP Funded: **\$98,440**
Match: **\$111,104**
Total Project: **\$209,544**
Contact: **Hudson DeYoe**
Dept Biology, UTPA, 1201 W. University Dr.
Edinburg, Texas 78539
956.665.3538

Coastwide Evaluating Groundwater Inflow and Nutrient Transport to Texas Coastal Embayments

Texas A&M University - Corpus Christi will conduct a series of attainable objectives that will improve understanding of groundwater contributions to water quality and habitat degradation in relevant embayments of the South Texas coast. Objectives are: (1) map groundwater discharge and groundwater-surface water interaction zones, (2) quantify the spatial-temporal distribution of groundwater contaminant (nutrients, organic matter) transport and discharge, (3) evaluate the role of groundwater nutrients in system-wide nutrient budgets (i.e., inputs-outputs), and (4) evaluate hypoxia and phytoplankton (red



and brown tide) trends in relation to groundwater flow and nutrient discharge.

CMP Funded: \$85,686
Match: \$57,973
Total Project: \$143,659
Contact: **Dorina Murgulet**
6300 Ocean Drive, Unit 5850
Corpus Christi, Texas 78412
361.825.2309

Texas Students Coastal Monitoring Program

Bureau of Economic Geology, The University of Texas at Austin will teach students how to monitor selected beaches over a period of one year. Students will measure shore-normal beach and dune topographic profiles and make observations on weather conditions, sea state, longshore current and dune vegetation at one to three sites during three field trips spaced throughout the academic year. The data collected by the students will be analyzed by scientists at the BEG and the students themselves, will compare their data to data collected by students in previous years.

CMP Funded: \$76,148
Match: \$52,751
Total Project: \$128,899
Contact: **Tiffany Caudle**
University Station, Box X
Austin, Texas 78713
512.475.95728



Galveston

Boater Waste Education Campaign: Communicating Environmental Impact and Facilitating Enforcement

Galveston Bay Foundation will maintain the previously developed efforts, but more importantly, continue to evolve and expand the Boater Waste Education Campaign (BWEC) based on lessons learned. GBF will develop, launch and promote the use of a mobile application that facilitates public environmental reporting and tracking behavior change, to quantify the potential impact that boater waste contributes to overall bacteria levels in Galveston Bay in order to gain buy in for behavior change, to expand the BWEC to include communication with the commercial boating industry, and to address language barriers in the outreach materials.

CMP Funded: \$60,000
Match: \$40,001
Total Project: \$100,001
Contact: **Charlene Bohanon**
17330 Highway 3
Webster, Texas 77598
281.332.3381 ext. 216

Increasing Water Quality and Quantity through Watershed Experiential Education in Texas Estuaries (WaterIQWet)

The Artist Boat, Inc. will engage 2,000 students, 80 classrooms and 40 teachers in experiential learning that results in formal understanding of water quality and water quantity issues facing estuarine environments on the Texas coast in the context of multiple issues regarding human use and behaviors that impact water quality creating multiple educators with experiences and outreach tools to promote attitudinal and behavioral changes among their community members.

CMP Funded: \$91,720
Match: \$72,594
Total Project: \$164,314
Contact: LuAnne Ashley
2415 Avenue
Galveston, Texas 77550
409.770.0722

Dickinson Bayou Wetland Restoration Project - Phase II Construction

Texas Parks and Wildlife Department will restore 10 acres and enhance and protect 17.7 acres of intertidal emergent marsh. This restoration project will enhance water quality by increasing circulation and reducing nutrients in the water column of an impaired water body. Additional benefits of the restored marsh will be increased fish and shellfish production, enhanced recreational fishing opportunities, enhanced bird and wildlife watching opportunities, and erosion protection for existing wetland habitats that are integral to the Texas Gulf Coast and the Galveston Bay estuarine ecosystem.

CMP Funded: \$116,610
Match: \$77,740
Total Project: \$194,350
Contact: Jan Culbertson
1502 FM 517 East
Dickinson, Texas 77539
281.534.0111

Lower Coast

Earth Day Bay Day Celebration 2014

Coastal Bend Bays Foundation will host the 2014 Earth Day Bay Day Celebration to promote and implement the educational goals and objectives of the Coastal Bend Bays Plan, and promote a general awareness of the Coastal Bend's unique coastal natural resources and its native habitats and wildlife.

CMP Funded: \$41,000
Match: \$26,850
Total Project: \$67,850
Contact: Daniel Lucio
1231 Agnes Street, Suite 100
Corpus Christi, Texas 78401
361.882.3439

Teachers on the Mission-Aransas Estuary

The University of Texas at Austin will help teachers educate students about the diversity, quality, quantity, functions and values of coastal natural resource areas, how humans impact these areas, and the benefits inherent in pro-

tecting them. The goal will be achieved by providing hands-on, field-based, professional development training for teachers at four sites within the Mission-Aransas National Estuarine Research Reserve.

CMP Funded: \$29,798
Match: \$19,946
Total Project: \$49,744
Contact: Sally Morehead
750 Channel View Drive
Port Aransas, Texas 78373
361.749.3046

Nueces County

Baseline Mapping for Mangrove Monitoring in the Coastal Bend, Texas Gulf Coast

The University of Texas at Austin, Bureau of Economic Geology will conduct a study to (1) provide a baseline from which to monitor the spread of mangroves in the Texas Coastal Bend; (2) establish methods and procedures for mangrove mapping through the automatic classification of hyperspectral imagery; and (3) expand upon previous wetland status and trends studies, funded through the Coastal Management Program, to analyze historical changes in the location and amount of mangrove in the coastal bend.

CMP Funded: \$38,450
Match: \$25,632
Total Project: \$64,082
Contact: Thomas Tremblay
University Station, Box X
Austin, Texas 78713
512.475.9537

Hilltop Nature Park Enhancements

Nueces County will connect areas within Hilltop Nature Park by constructing a 1,500- linear-foot nature trail, a 100-cubic-yard (6-foot deep) wetland pond adjacent to an existing creek with an ADA crossover 20-foot x 5-foot timber boardwalk that connect to the nature trail; and construct a 70-foot x 10-foot ADA nature overlook timber structure to encourage and perpetuate the observation of wildlife.

CMP Funded: \$60,000
Match: \$40,000
Total Project: \$100,000
Contact: Roxana Sandoval
901 Leopard Street, Room 501
Corpus Christi, Texas 78401
361.888.0225



Mustang Island Habitat Protection and Enhancement

Coastal Bend Bays & Estuaries Program will (1) repair existing and install new bollards and cable to protect the entire ~1,200-acre Mollie Beattie and Kate's Hole preserves by limiting access to certain areas within the preserves; (2) make improvements to existing driveways and parking areas to allow for safe public access; (3) remove debris such as large concrete blocks from wetlands near the driveways and parking areas within the preserves to provide more functioning coastal marsh and tidal flat habitat.

CMP Funded: \$60,000

Match: \$40,000

Total Project: \$100,000

Contact: Dustin Cravey

1305 N Shoreline Blvd, Suite 205

Corpus Christi, Texas 78401

361.885.6162

Shell Bank Improving Oyster Reef Restoration Through Oyster Shell Recycling, Education, and Scientific Inquiry

Texas A&M University - Corpus Christi will continue to reclaim oyster shells from coastal bend restaurants/wholesalers for restoring degraded reefs; establish a community-based shell recycling program to promote community drop off locations for shucked oyster shells; create interactive educational modules as part of a Web-based curriculum and Internet-based kiosk to be placed within one of the partner restaurants; and perform habitat assessments to understand how well restored systems replace the important habitat functions provided by natural reefs.

CMP Funded: \$99,228

Match: \$66,731

Total Project: \$165,959

Contact: Jennifer Pollack

6300 Ocean Drive, Unit 5800

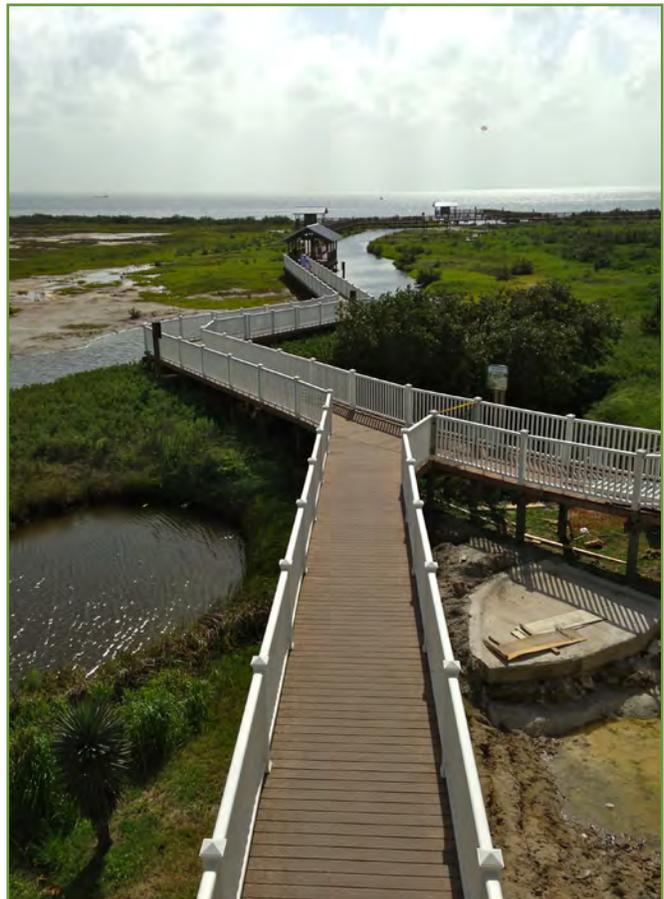
Corpus Christi, Texas 78412

361.825.2041

Upper Coast

Maximizing the Ecological Value of Coastal Wetland Restoration: Comparisons Among Restoration Techniques

Texas A&M University at Galveston will expand its existing monitoring program to encompass several other restoration projects, including newly (less than 5 years old) created BUDM sites; a subset of these sites were planted with marsh vegetation, and others were left unvegetated. Additional engineered sites will be included as well; all sites will be compared to natural reference sites. Comparisons of the ecological values provided by the engineered and BUDM construction techniques will help to identify the most ecologically effective restoration approaches and enhance future restoration projects along the Texas coast.

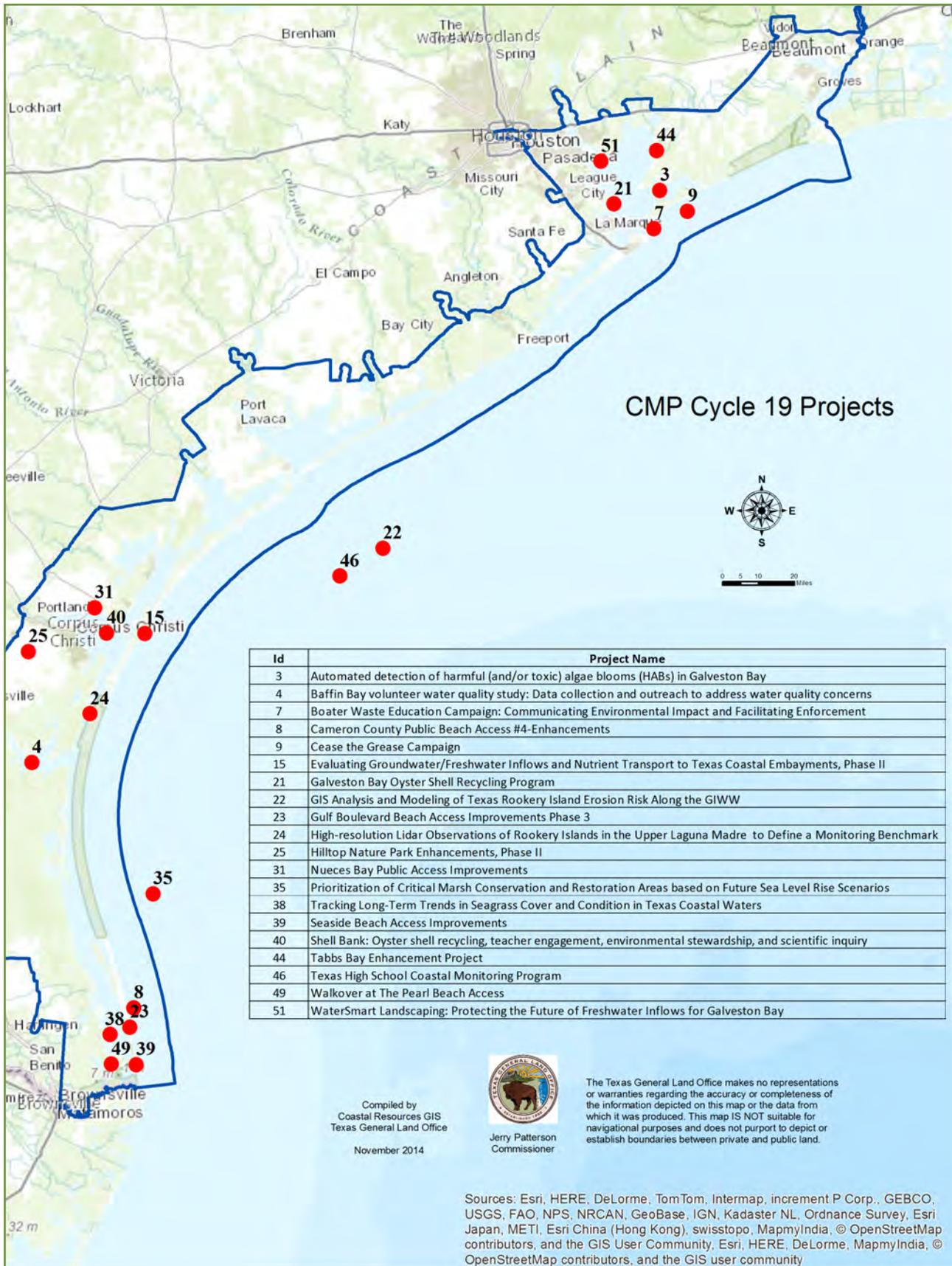


CMP Funded: \$100,000
Match: \$66,891
Total Project: \$166,891
Contact: Anna Armitage
200 Seawolf Parkway
Galveston, Texas 77553
409.740.4842

Galveston Bay Seafood Advisory Education Campaign

Galveston Bay Foundation will implement an important follow-up project to the CMP Cycle 15 “Harris County Seafood Consumption Advisory Public Education Campaign,” which was successful in educating fishermen and crabbers with the placement of 112 signs at 56 locations that had been impacted by multiple seafood consumption advisories. Given the effectiveness of reaching people where they fish, funds will be expended on placing additional pairs of English and Spanish signs at other priority locations.

CMP Funded: \$4,090
Match: \$2,727
Total Project: \$6,817
Contact: Scott Jones
17330 Highway 3
Webster, Texas 77598
281.332.3381 ext. 209



Cycle 19 Projects

Aransas County

Evaluating Groundwater/Freshwater Inflows and Nutrient Transport to Texas Coastal Embayments, Phase II

Texas A&M University-Corpus Christi (TAMU-CC) will conduct a study to advance understanding of groundwater inflows and nutrient transport to bay systems in South Texas for improved environmental flow recommendations and nutrient criteria. TAMU-CC will accomplish this by explicitly incorporating groundwater discharge into the freshwater inflow needs and nutrient budgets. The objectives are to: map groundwater discharge and groundwater-surface water interaction zones; quantify the spatial-temporal distribution of groundwater and surface water contaminant (nutrients, organic matter) transport and discharge; evaluate nitrogen sources (i.e., anthropogenic vs. natural; agricultural vs. alternative); and evaluate the role of groundwater nutrients in system-wide nutrient budgets (i.e., inputs-outputs). To fulfill these objectives, TAMU-CC will quantify groundwater discharge on a seasonal basis to Aransas Mission Estuary and will quantify contaminants within the groundwater that may contribute to water quality degradation.

CMP Funded: \$94,924

Match: \$63,418

Total Project: \$158,342

Contact: Dr. Dorina Murgulet

6300 Ocean Drive, Unit 5850

Corpus Christi, Texas 78412

361.825.2309

Cameron County

Cameron County Public Beach Access #4 – Enhancements

Cameron County Parks and Recreation will improve Beach Access #4 in Cameron County to provide beach visitors with safe access to the beach. A 240-foot x 7-foot ADA-compliant dune walkover will be constructed to provide proper access from the parking lot to the beach and protect the dune system. The walkover will be furnished with a rinse station. This project will also include the installation of water, sewer and electrical connections for future constructions of restrooms and showers.

CMP Funded: \$96,000

Match: \$64,000

Total Project: \$160,000

Contact: Joe Vega

33174 State Park Road 100-South

South Padre Island, Texas 78597

956.761.3700

Tracking Long-Term Trends in Seagrass Cover and Condition in Texas Coastal Waters

The University of Texas at Austin (UT) will examine the long-term health of seagrasses in the Lower Laguna Madre, following protocols that evaluate seagrass condition based on landscape-scale dynamics. UT will focus on “Tier-2” monitoring (Neckles et al., 2011) that includes annual rapid assessment and sampling at 567 stations along the Texas coast. This project contributes to a broader statewide monitoring effort by the University of Texas Marine Science Institute to assess seagrass condition and distribution, which began in summer 2011 and is currently in its third consecutive year. UTMSI’s sampling effort will serve as a database of existing Texas seagrass resources available for various local, state and national groups.

CMP Funded: \$89,810
Match: \$60,244
Total Project: \$150,054
Contact: Dr. Kenneth Dunton
750 Channel View Dr.
Port Aransas, Texas 78373
361.749.6744



South Padre Island Dune Restoration Volunteer Program

The City of South Padre Island will continue dune restoration projects along the entire length of City beach. The City experiences variable erosion rates, averaging 10 feet per year in some areas. The City will identify low-lying areas and gaps in dune elevation for volunteer restoration planting events. The City will use aerial photography to identify gaps and low-lying areas in the dune line and install native plants in the dunes to promote their growth.

CMP Funded: \$86,075
Match: \$58,716
Total Project: \$144,791
Contact: Reuben Trevino
4601 Padre Blvd.
South Padre Island, Texas 78597
956.761.8111

Gulf Boulevard Beach Access Improvements Phase 3

The City of South Padre Island is moving forward with a solution to maximize the use of the entire 75-foot right-of-way (ROW) of Gulf Boulevard which has not been completely utilized in the past. The number one safety concern for the City is public safety. The current conditions along Gulf Boulevard provide a dangerous environment for vehicular and pedestrian traffic. The City will improve 15 percent of the entire length of Gulf Boulevard by utilizing the 75-foot ROW to maximize public safety while also providing clear access to avoid private property damage and destruction of the dune system.

CMP Funded: \$150,000
Match: \$173,583
Total Project: \$323,583
Contact: Reuben Trevino
4601 Padre Blvd.
South Padre Island, Texas 78597
956.761.8111

Seaside Beach Access Improvements

The City of South Padre Island seeks to enhance public beach access for residents and tourists. The City will construct an ADA-compliant public dune walkover and install plumbing to irrigate the surrounding dunes at Seaside Circle (Access Point #6). The existing dune walkover is too narrow and does not provide adequate height over the dune to allow sunlight to reach the vegetation underneath. The proposed walkover will accommodate the area's

high public use and keep the dune system strong and free of weak points that lead to gaps and washovers.

CMP Funded: \$55,500
Match: \$37,000
Total Project: \$92,500
Contact: **Reuben Trevino**
4601 Padre Blvd.
South Padre Island, Texas 78597
956.761.8111

Walkover at The Pearl Beach Access

The City of South Padre Island will improve the existing public beach access easements located on the island for residents and tourists. The City will improve one easement located on the northern side of The Pearl Hotel. This beach access begins as a 40-foot public ingress/egress easement at the Park Rd 100 frontage and becomes a 10-foot pedestrian access 301.11 feet west of the toe of the existing retaining wall. The City will install a 10-foot wide ADA-compliant walkover from the existing retaining wall to the line of vegetation. The walkover will provide public access and provide protection to the dune system.

CMP Funded: \$150,000
Match: \$173,583
Total Project: \$323,583
Contact: **Reuben Trevino**
4601 Padre Blvd.
South Padre Island, Texas 78597
956.761.8111

Coastwide

GIS Analysis and Modeling of Texas Rookery Island Erosion Risk Along the GIWW

Audubon Texas will assemble GIS data and build a spatial, habitat-based model to predict the risk of islands along the GIWW becoming unusable for nesting due to poor habitat or erosion damage. GIS data will be gathered on



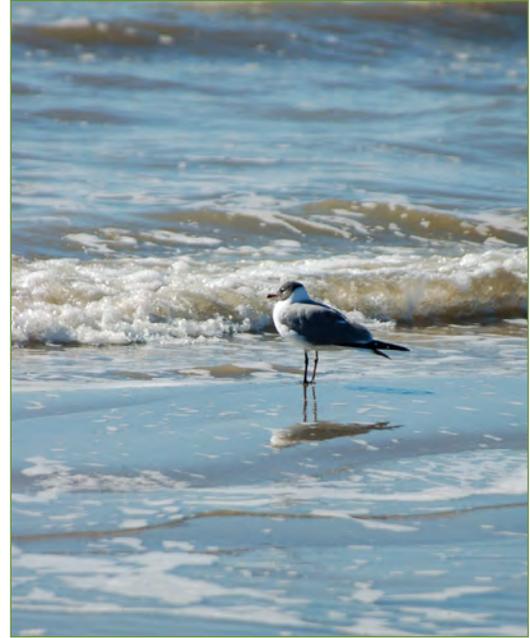
select sample sites and a model will be built to predict the sites' longevity as a nesting area based on physical parameters. The model will predict which sites are most at-risk of becoming too damaged for bird nesting and each site's probability of becoming unusable for nesting. Data from the island-risk model will be compared to the Texas Colonial Waterbird Society's database to identify specific waterbird species most likely to be impacted by habitat/island loss in each bay system. Historical habitat data will be compared to current data to anticipate waterbird species' movements due to habitat/island loss.

CMP Funded: \$120,848
Match: \$77,526
Total Project: \$198,374
Contact: **Amanda Hackney**
4702 HWY 146N
Texas City, Texas 77590
936.554.9033

Texas High School Coastal Monitoring Program

The University of Texas at Austin, Bureau of Economic Geology (BEG) will conduct The Texas High School Coastal Monitoring Program (THSCMP). The THSCMP engages students and teachers who live along the coast in the study of their natural environment. Middle and high school students, teachers, and scientists work together to gain a better understanding of dune and beach dynamics on the Texas coast. Scientists from the BEG provide the tools and training needed for scientific investigation. Students and teachers learn how to measure the topography, recognize and map the vegetation line and shoreline, and observe weather and wave conditions. By participating in an actual research project, the students obtain an enhanced science education.

CMP Funded: \$76,749
Match: \$52,922
Total Project: \$129,671
Contact: **Tiffany Caudle**
University Station, Box X
Austin, Texas 78713
512.475.9572



Galveston County

Automated Detection of Harmful (and/or Toxic) Algae Blooms (HABs) in Galveston Bay

Texas A&M University-Galveston (TAMUG) will use an Imaging FlowCytobot, to continuously monitor algal populations, and to act as an early warning system, alerting scientists, state and federal agency personnel of Harmful Algal Blooms that may enter the bay. The Imaging FlowCytobot will allow TAMUG: to identify phytoplankton blooms – their timing, magnitude and duration; follow blooms and observe changes in species composition; analyze the distribution of species in real time; and allow the development of predictive abilities to forecast subsequent blooms. The unit is portable and can be moved in response to blooms.

CMP Funded: \$75,997
Match: \$50,950
Total Project: \$126,947
Contact: **Dr. Antonietta Quigg**
200 Seawolf Parkway
Galveston, Texas 77553
409.740.4990

Boater Waste Education Campaign: Communicating Environmental Impact and Facilitating Enforcement

The Galveston Bay Foundation (GBF) will continue the Boater Waste Education Campaign (BWEC). GBF will maintain previously developed efforts including: marketing and advertising efforts to spread the BWEC message; the Clean Water Partnership program that helps marina staff and boaters work together to carry out BWEC projects and workshops; as well as GBF's Water Monitoring Team, Dockwalkers, AquaKids Classes, and the College Research Experience. GBF will continue to refine the BWEC based on lessons learned and track program improvements. GBF will make improvements to the Galveston Bay Action Network mobile app that facilitates public environmen-

tal reporting, continue to quantify the potential impact that boater waste contributes to overall bacteria levels in Galveston Bay, continue to expand the BWEC to include communication with the commercial boating industry, and continue to address language barriers through educational outreach.

CMP Funded: \$60,000
Match: \$40,000
Total Project: \$100,000
Contact: Charlene Bohanon
17330 Highway 3
Webster, Texas 77598
281.332.3381 ext. 216

Cease the Grease Campaign

The Galveston Bay Foundation (GBF) will coordinate and launch a regional Cease the Grease campaign (CtG) by: working in cooperation with a stakeholder workgroup; developing marketing and outreach materials; creating a distribution plan; and tracking campaign progress. Sanitary sewer overflows (SSOs) from fats, oil and grease (FOG) are a source of concern for fecal bacteria found in Galveston Bay (TCEQ, 2008*) and as such, can be a public health risk for oyster consumption in restricted harvest zones, as well as for contact recreation where localized bacteria levels are heightened due to raw sewage being discharged near the shore. Aging infrastructure, combined with improper disposal of FOG in single and multi-family homes, can lead to costly problems for both local governments and citizens in terms of sewer line and home plumbing repairs, and environmental remediation.

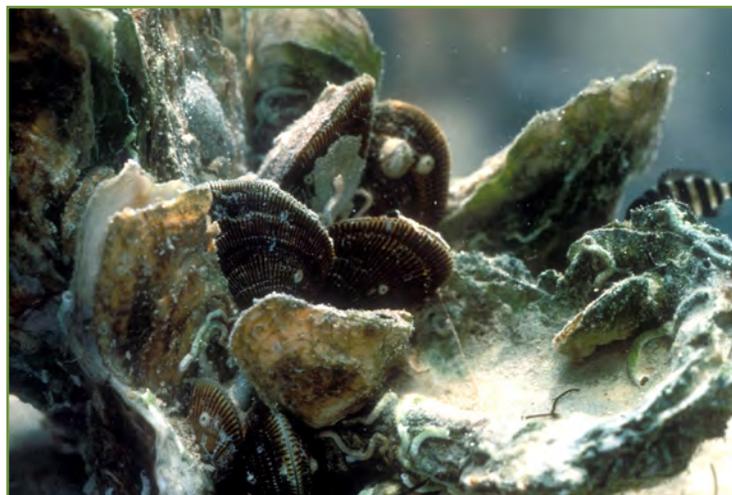
CMP Funded: \$46,950
Match: \$31,299
Total Project: \$78,249
Contact: Charlene Bohanon
17330 Highway 3
Webster, Texas 77598
281.332.3381 ext. 216

Harris County

Galveston Bay Oyster Shell Recycling Program

The Galveston Bay Foundation (GBF) will continue its oyster shell recycling program. GBF reclaims discarded oyster shell from restaurant partners for future use in restoration projects. GBF will expand oyster shell collection efforts and educate restaurant patrons of the important ecosystem services oysters provide for water quality and the importance of recycling a valuable coastal natural resource. Shell obtained from the continuation and expansion of the Galveston Bay Oyster Shell Recycling Program will be used for projects that benefit ecosystem services of Galveston Bay and the health and sustainability of the native oyster population.

CMP Funded: \$36,000
Match: \$24,000
Total Project: \$60,000



Contact: **Matthew Abernathy**
17330 Highway 3
Webster, Texas 77598
281.332.3381 ext. 203

Tabbs Bay Enhancement Project

The City of Baytown will remove and dispose of approximately 450 submerged and partially submerged pilings from derelict drilling rigs, defunct derrick platforms and damaged service docks/piers from Tabbs Bay. The removals will take place near Goose Creek, along State Highway 146 near Missouri Street, east of the Fred Hartman (Bay-



town/LaPorte) Bridge, and on the northern shore of the Houston Ship Channel, in Harris County. The USGS Quad reference map is: Morgan's Point, Texas. The project supports public access and enjoyment of the coastal zone, improves navigability to the public boat ramp and provides a safer waterfront area for recreational activities such as boating, fishing and jet skiing.

CMP Funded: **\$99,600**
Match: **\$66,400**
Total Project: **\$166,000**
Contact: **Scott Johnson**
2401 Market Street
Baytown, Texas 77520
281.420.6599

WaterSmart Landscaping: Protecting the Future of Freshwater Inflows for Galveston Bay

Texas A&M AgriLife Extension Service, through the Texas Coastal Watershed Program and WaterSmart Program will promote resilient, water-conserving, low-polluting landscapes by providing hands-on demonstration projects, workshops and various forms of educational outreach. The WaterSmart Program of

the Texas Coastal Watershed Program has shown that resilient, water-conserving, low-polluting landscapes can be both very beautiful and functional. The WaterSmart Program will use an integrated, targeted approach to include: installation of a minimum of three demonstration landscapes in highly visible locations; conducting a minimum of two hands-on workshops to accompany at least two of the installations—one will be aimed at an audience of critical decision makers who can influence local and regional policy and the other will focus on non-professionals, including homeowners; create a series of unique, innovative videos prepared for YouTube that will illustrate aspects of WaterSmart, eco-friendly landscaping such as lawn reduction, alternatives to turf grasses, soil preparation, plant selection and landscape maintenance; and develop interpretive signs located at the demonstration sites, educational materials, brochures and fact sheets. Additional information will appear on the WaterSmart website at <http://watersmart.tamu.edu> to provide continued education; and through various forms of social media to promote community engagement and audience building, keeping critical information and support timely and up to date while reaching an even larger audience.

CMP Funded: **\$89,548**

Match: \$60,007
Total Project: \$149,555
Contact: **Dr. John Jacob**
 1250 Bay Area Blvd. Suite C
 Houston, Texas 77058
281.218.0565

Kleberg County

Baffin Bay Volunteer Water Quality Study: Data collection and Outreach to Address Water Quality Concerns

Texas A&M University-Corpus Christi (TAMU-CC) will continue its water quality monitoring program in Baffin Bay. TAMU-CC recently initiated a spatially, temporally intensive volunteer water quality monitoring program in Baffin Bay. The primary objective of this program is to generate data necessary to determine “when” and “where” symptoms of water quality degradation are most pronounced. To accomplish this, water quality surveys are conducted monthly and following rain events, with samples collected at nine sites throughout Baffin Bay for a suite of water quality parameters. TAMU-CC will continue this program as well as conduct nutrient addition bioassays, which will aid in determination of whether nitrogen or phosphorus is primarily responsible for the excessive algal growth.

CMP Funded: \$76,801
Match: \$51,853
Total Project: \$128,654
Contact: **Dr. Michael Wetz**
 6300 Ocean Dr., Unit 5892
 Corpus Christi, Texas 78412
361.825.2132



Lower Coast

Prioritization of Critical Marsh Conservation and Restoration Areas Based on Future Sea Level Rise Scenarios

The Nature Conservancy (TNC) will produce new Sea Level Affecting Marsh Models (SLAMM) scenario models of the project site based on the results of the Bureau of Economic Geology’s new Lidar acquisitions and other available datasets. TNC will integrate high-resolution Lidar data into SLAMM models and identify priority restoration/conservation areas. High- and low-resolution SLAMM models will be compared. Economic and ecological indices and maps will be created. Project results will be disseminated through two stakeholder workshops and all project data and deliverables will be published online.

CMP Funded: \$62,857
Match: \$41,905
Total Project: \$104,762

Contact:

Jorge Brenner
205 N. Carrizo St.
Corpus Christi, Texas 78401
361.882.3584

High-resolution Lidar Observations of Rookery Islands in the Upper Laguna Madre to Define a Monitoring Benchmark

The Harte Research Institute at Texas A&M University-Corpus Christi will obtain the results of an airborne light detection and ranging (Lidar) survey of islands within the Upper Laguna Madre and provide analyses of rookery island vulnerability. The survey will target the chain of islands near the JFK causeway and along the Intracoastal Waterway from Corpus Christi bay south to the land bridge below Baffin Bay. This project will provide baseline topographic data for resource managers to effectively characterize nesting habitat of the rookery islands.

CMP Funded: \$82,198
Match: \$54,949
Total Project: \$137,147
Contact: **Dr. Michael Starek**
6300 Ocean Dr. #5869
Corpus Christi, Texas 78412
361.825.3978

Nueces County
Hilltop Nature Park Enhancements, Phase II

Nueces County will continue improvements to the Hilltop Nature Park to provide enhanced ecological awareness and preserve the park’s natural resources. The County will construct an 1,800-linear foot-nature trail to connect the existing trail to an underutilized area of the park. The nature trail will provide amenities for a sitting area and nature overlook. A small foot bridge will be constructed to cross over a low-lying area, which occasionally runs with water during heavy rain events. Interpretive signage (migrant and resident birds/animals, native plants) will be installed to educate patrons and promote conservation awareness.

CMP Funded: \$60,000
Match: \$40,000
Total Project: \$100,000
Contact: **Roxana Sandoval**
901 Leopard Street, Room 501
Corpus Christi, Texas 78401
361.888.0225

Nueces Bay Public Access Improvements

The Coastal Bend Bays and Estuaries Program (CBBEP) will initiate public access improvements to Nueces Bay adjacent to the Nueces Bay Marsh Restoration Project site. The CBBEP owns a 33-acre parcel of land along the southbound side of Highway 181 bordering the northeast portion of Nueces Bay that will be dedicated to public access to Nueces Bay. CBBEP will create a parking and staging area for fisherman and paddle craft



users and install a bollard and cable perimeter to keep vehicles in the approved parking areas and out of sensitive wetland habitat. An ADA-accessible elevated platform and informational kiosk will also overlook the adjacent CBBEP Marsh Restoration Site.

CMP Funded: \$39,000
Match: \$26,000
Total Project: \$65,000
Contact: **Jake Herring**
1305 N. Shoreline Blvd. Ste 205
Corpus Christi, Texas 78401
361.885.6209

Shell Bank: Oyster Shell Recycling, Teacher Engagement, Environmental Stewardship, and Scientific Inquiry

The Harte Research Institute (HRI) at Texas A&M University-Corpus Christi will continue its oyster shell recycling program, the Shell Bank. HRI developed its program to reclaim discarded oyster shell from local area restaurants, seafood wholesalers and festivals to return shells to Coastal Bend bays to restore degraded habitat. HRI will expand oyster shell collection, host community-based restoration events, provide training to local school teachers, and monitor the success of alternative reef restoration materials used at current restoration sites.

CMP Funded: \$99,483
Match: \$66,331
Total Project: \$165,814
Contact: **Dr. Jennifer Pollack**
6300 Ocean Drive, Unit 5800
Corpus Christi, Texas 78412
361.825.2041

Coastal Zone Enhancement Grants Program – Long-term Planning Initiative

Section 309 of the CZMA allocates funds to encourage states to develop projects that will affect program enhancements in one or more of the following eight enhancement areas:

- ◆ Wetlands
- ◆ Public Access
- ◆ Coastal Hazards
- ◆ Cumulative and Secondary Impacts
- ◆ Energy and Government Facility Siting
- ◆ Marine Debris
- ◆ Ocean Resources
- ◆ Aquaculture

Under the Coastal Management Program's Section 309 Coastal Zone Enhancement Grants Program, the Texas General Land Office is pursuing a long-term coastwide planning initiative and development of Geographic Information System (GIS) based tools. The goal is to identify key resources along the coast to balance economic growth with the protection of critical habitats and ecosystems.

To launch the planning initiative, the Texas General Land Office teamed up with coastal experts to evaluate the

pressing threats in each coastal region and established a baseline of the primary issues of concern along the Texas coast. The GLO released an overview report, "The Texas Coast: Shoring Up Our Future," which highlights the ecological and economic features along the Texas coast, and identifies the primary issues of concern threatening its sustainability.

Next, staff presented the issues of concern to local elected officials in the coastal regions for verification and local input regarding priority critical areas to address through planning and coordination.

The GLO, in partnership with the Harte Research Institute, completed a comprehensive review and update of the Resource Management Codes (RMCs) for inclusion on a newly developed GIS viewer. The RMCs are assigned to state-owned tracts in Texas bays and gulf waters, and promote best management practices for activities within the tracts to minimize adverse impacts to sensitive natural resource areas. Last fall, a workgroup made up of representatives from the CMP-networked resource agencies, federal agencies, GLO Energy Resources and GLO GIS Teams, routinely met to examine and redefine 35 codes, identify and compile 141 data sets applicable to each code, and develop the data driven code-assigning criteria for integration into a GIS viewer. The RMC viewer provides assistance to resource managers, planners and industry with the permitting process and coastal resource management decisions by promoting best management practices for activities within the state-owned land tracts to minimize adverse impacts to sensitive natural resource areas.

Building on the outreach and awareness strategies, resiliency forums were held in December 2014 with local elected officials and city and county planners to start a dialogue between the Texas General Land Office and local decision makers, and to focus on crafting solutions to better prepare and respond to the threats facing our shorelines. Coastal experts also were in attendance to showcase planning tools, which helped identify risks associated with those threats. Through the CMP Section 309 grant funding, the GLO will continue to support and engage coastal communities in their resiliency planning to better prepare for future storms and coastal vulnerabilities. This will help ensure a strong Texas coast, both for business and the environment, for generations to come.

CMP Funded: \$451,000
Total Project: \$451,000
Contact: Kate Zultner
P.O. Box 12873
Austin, Texas 78711-2873
kate.zultner@glo.texas.gov
512.936.9581

PERFORMANCE MEASURES



NOAA uses performance measures to assess how well the National Coastal Zone Management Program and National Estuarine Research Reserve System are achieving the goals of the Coastal Zone Management Act (CZMA). NOAA has used expert panels, collaborative work groups and studies involving Coastal Management Programs (CMP) and Reserves to develop performance measures that accommodate varying management structures and differing coastal priorities across coastal states. Performance measures include the following components:

- ◆ Performance Indicators
- ◆ Units of Measure
- ◆ Baseline Information

Long-term monitoring and data collection of performance measures establish a baseline and identify trends in coastal resource management outcomes. With appropriate support, it becomes a powerful tool for management of the nation's coastal zone and for demonstrating the success of the CZMA in preserving, protecting and restoring coastal resources and sustaining coastal communities throughout the United States for this and future generations.

CZMA Performance Measurement System

The CZMA Performance Measurement System tracks national indicators of the effectiveness of CMP and National Estuarine Research Reserves (NERR) in achieving CZMA and strategic objectives. The system consists of contextual indicators to provide information on environmental and socioeconomic factors influencing program actions and performance measures to assess how well states are achieving CZMA program objectives.

The Office of Ocean and Coastal Resource Management (OCRM) collaborated with CMPs and NERRs to develop a performance measurement system that provides flexibility and accommodates varying management structures and differing coastal priorities across coastal states. Quantification of management outcomes directly responds to congressional requests for performance measures to assess the national impact of CZMA programs and to the Office of Management and Budget recommendations that CZMA programs develop outcome-oriented performance measures to demonstrate program effectiveness. The CZMA performance measurement system also facilitates adaptive management, enhanced communication, and informed planning and resource allocation decisions by federal and state coastal managers.

National Coastal Zone Management Program Performance Measures

The CZMA Program has five categories of performance measures:

Government Coordination and Decision-Making

The goal is to improve coordination and participation in the implementation of the CZM Program and improve government decision making through technical assistance and consultation on projects affecting the coastal zone.

The CZM Program provides a framework under the CZMA federal consistency provisions to effect change through state policies in support of national priorities, to provide technical assistance and dedicated staff resources in the review of coastal zone projects, and to achieve regulatory efficiencies through a coordinated, predictable project approval process. The CZM Program balances the need for economic development with resource protection through implementation of state regulatory programs to avoid, minimize, or if necessary, mitigate the loss of coastal habitats. The CZM Program is a federal-state partnership that supports comprehensive planning, coordinated decision-making, and public participation in coastal management.

Public Access

The goal is to create or enhance public access sites over the next five years. The CZM Program protects, creates and enhances public access to the coast through regulatory programs, acquiring new public access sites, and enhancing recreational facilities such as boardwalks and piers.

Coastal Habitats

The goals are to protect coastal habitat through acquisition or easement, to restore coastal habitat, and to remove marine debris from coastal habitats. The CZM Program uses funding and expertise to protect and restore coastal habitat and develops and coordinates local partnerships to engage citizen stewards. The CZM Program works with local communities to reduce marine debris reaching our oceans, Great Lakes and beaches.

Coastal Hazards

The goal is to increase the percentage of coastal communities implementing management practices to improve resilience and increase public awareness of hazards. Through its partnerships, the CZM Program engages states and communities to become more resilient by comprehensive planning, managing development to minimize damage to communities and coastal habitats, increasing preparedness, and responding to coastal hazards.

Coastal Dependent Uses and Community Development

The goal is to increase the percentage of communities in the coastal zone implementing sustainable coastal management practices and revitalizing port and waterfront areas. The CZM Program gives funding and expertise to help coastal communities sustain their economies, human health, environment and coastal character.

Implementation of the performance measures is conducted collaboratively with the 33 states and territory coastal management programs. A 3-year phased approach completed in 2008 resulted in a core set of measures representing shared national priorities with feasible and consistent reporting standards.

The CZMA Program is also developing approaches to communicate the results of the performance measures and nationally collected contextual indicators. Recommendations for communicating the results were developed by a group of representatives from the Coastal States Organization, coastal management programs and the OCRM.

The information is reported to OCRM annually for performance measures and every five years for the contextual indicators. Contextual indicators are submitted as part of the program's §309 Assessment and Strategy Report, which is described in detail later in this report.

Texas' National Coastal Zone Management Program Performance Measures

The Texas Coastal Management Program (CMP) utilizes the data to set its goals and strategies and incorporate them into the CMP Grants Program. Texas' performance measures are reported to OCRM and are listed in below. The data is collected from projects completed in the 2012 and 2013 federal fiscal year and reported to OCRM in October 2013 and October 2014, respectively.

<h3 style="text-align: center;">Texas Performance Measures</h3> <h4 style="text-align: center;">October 1, 2012 to September 30, 2013</h4>			
Category		Performance Measure	Units
Government Coordination and Decision Making	1	Total number of federal consistency projects technically reviewed (determined to be applicable for federal consistency review) during the reporting period.	253
		Number of federal agency activity projects reviewed where the project was modified due to consultation with the applicant to meet state CZM policies.	0
		Number of federal license or permit activity projects reviewed where the project was modified due to consultation with the applicant to meet state CZM policies.	163
		Number of Outer Continental Shelf (OCS) projects reviewed where the project was modified due to consultation with the applicant to meet state CZM policies.	0
		Number of projects for federal financial assistance to state agencies or local governments reviewed where the project was modified due to consultation with the applicant to meet state CZM policies.	0
Government Coordination and Decision Making	2	Number of acres of permit-estimated loss of tidal (or Great Lake) wetlands due to activities subject to CZM regulatory programs.	28.99
		Number of acres of required gain or mitigation of tidal (or Great Lake) wetlands due to activities subject to CZM regulatory programs.	50.15
		Number of acres of permit-estimated loss of beach and dune habitat due to activities subject to CZM regulatory programs.	0.00
		Number of acres of required gain or mitigation of beach and dune habitat due to activities subject to CZM regulatory programs.	0.00

Texas Performance Measures

October 1, 2012 to September 30, 2013

Category		Performance Measure	Units
		Number of acres of permit-estimated loss of nearshore habitat (intertidal, subtidal, submerged) due to activities subject to CZM regulatory programs.	165.41
		Number of acres of required gain or mitigation of nearshore habitat (intertidal, subtidal, submerged) due to activities subject to CZM regulatory programs.	45.32
		Number of acres of permit-estimated loss of other habitat types due to activities subject to CZM regulatory programs.	15.47
		Number of acres of required gain or mitigation of other habitat types due to activities subject to CZM regulatory programs.	60.59
Government Coordination and Decision Making	3	Number of coordination events related to Government Coordination offered by the CZM Program	9
		Number of stakeholder groups participating in coordination events related to Government Coordination offered by the CZM Program.	238
		Number of coordination events related to Public Access offered by the CZM Program.	0
		Number of stakeholder groups participating in coordination events related to Public Access offered by the CZM Program.	0
		Number of coordination events related to Coastal Habitat offered by the CZM Program.	0
		Number of stakeholder groups participating in coordination events related to Coastal Habitat offered by the CZM Program.	0
		Number of coordination events related to Coastal Hazards offered by the CZM Program.	0
		Number of stakeholder groups participating in coordination events related to Coastal Hazards offered by the CZM Program.	0

Texas Performance Measures

October 1, 2012 to September 30, 2013

Category		Performance Measure	Units
		Number of coordination events related to Coastal Community Development and Coastal Dependent Uses offered by the CZM Program.	10
		Number of stakeholder groups participating in coordination events related to Coastal Community Development and Coastal Dependent Uses offered by the CZM Program.	80
Government Coordination and Decision Making	4	Number of educational activities related to Government Coordination offered by the CZM Program.	1
		Number of participants in educational activities related to Government Coordination offered by the CZM program.	362
		Number of training events related to Government Coordination offered by the CZM Program.	4
		Number of participants in training events related to Government Coordination offered by the CZM Program.	51
Public Access	5	Number of public access sites created through acquisition or easement with assistance from CZM funding or staff.	0
		Number of existing public access sites enhanced with assistance from CZM funding or staff.	1
Public Access	6	Number of public access sites created through CZM regulatory requirements.	3
		Number of public access sites enhanced through CZM regulatory requirements.	8
Public Access	7	Number of educational activities related to Public Access offered by the CZM Program.	1
		Number of participants in educational activities related to Public Access offered by the CZM Program.	4,873

Texas Performance Measures

October 1, 2012 to September 30, 2013

Category		Performance Measure	Units
		Number of training events related to Public Access offered by the CZM Program.	0
		Number of participants in training events related to Public Access offered by the CZM Program.	0
Coastal Habitat	8	Number of acres of tidal or Great Lake wetlands protected by acquisition or easement with assistance from CZM funding or staff.	0.00
		Number of acres of tidal or Great Lake wetlands under restoration with assistance from CZM funding or staff.	12.00
		Number of acres of beach and dune habitat protected by acquisition or easement with assistance from CZM funding or staff.	0.00
		Number of acres of beach and dune habitat under restoration with or easement with assistance from CZM funding or staff.	0.00
		Number of acres of nearshore habitat (intertidal, subtidal, and submerged) protected by acquisition or easement with assistance from CZM funding or staff.	2.50
		Number of acres of nearshore habitat (intertidal, subtidal, and submerged) under restoration with assistance from CZM funding or staff.	0.00
		Number of acres of other types of habitat protected by acquisition or easement with assistance from CZM funding or staff.	0.00
		Number of acres of other types of habitat under restoration with assistance from CZM funding or staff.	0
		Number of meters of beach and dune habitat protected by acquisition or easement with assistance from CZM funding or staff.	0
		Number of meters of beach and dune habitat under restoration with assistance from CZM funding or staff.	0

Texas Performance Measures

October 1, 2012 to September 30, 2013

Category		Performance Measure	Units
		Number of meters of nearshore habitat (intertidal, subtidal, and submerged) protected by acquisition or easement with assistance from CZM funding or staff.	0
		Number of meters of nearshore habitat (intertidal, subtidal, and submerged) under restoration with assistance from CZM funding or staff.	0
		Number of meters of other types of habitat protected by acquisition or easement with assistance from CZM funding or staff.	0
		Number of meters of other types of habitat under restoration with assistance from CZM funding or staff.	0
Coastal Habitat	9	Number of marine debris removal activities completed with assistance from CZM funding or staff.	6
		Estimated number of pounds of debris removed by the above reported marine debris removal activities.	943,654
Coastal Habitat	10	Number of educational activities related to Coastal Habitat offered by the CZM Program.	16
		Number of participants in educational activities related to Coastal Habitat offered by the CZM Program.	768
		Number of training events related to Coastal Habitat offered by the CZM Program.	17
		Number of participants in training events related to Coastal Habitat offered by the CZM Program.	164
Coastal Hazards	11	Number of communities that completed a project to reduce future damage from hazards with assistance from CZM funding or staff.	1
		Number of communities that completed a project to increase public awareness of hazards with assistance from CZM funding or staff.	7

Texas Performance Measures

October 1, 2012 to September 30, 2013

Category		Performance Measure	Units
Coastal Hazards	12	Number of educational activities related to Coastal Hazards offered by the CZM Program.	18
		Number of participants in educational activities related to Coastal Hazards offered by the CZM Program.	620
		Number of training events related to Coastal Hazards offered by the CZM Program.	4
		Number of participants in training events related to Coastal Hazards offered by the CZM Program.	58
Coastal Dependent Uses & Community Development	13	Number of coastal communities that developed or updated sustainable development ordinances, policies, and plans with assistance from CZM funding or staff.	0
		Number of coastal communities that completed a project to implement a sustainable development plan with assistance from CZM funding or staff.	7
		Number of coastal communities that developed or updated port or waterfront redevelopment ordinances, policies, and plans with assistance from CZM funding or staff.	0
		Number of coastal communities that completed a project to implement a port or waterfront redevelopment plan with assistance from CZM funding or staff.	0
Coastal Dependent Uses & Community Development	14	Number of coastal communities that developed or updated polluted runoff management ordinances, policies, and plans with assistance from CZM funding or staff.	0
		Number of coastal communities that completed projects to implement polluted runoff management plans with assistance from CZM funding or staff.	0
Coastal Dependent Uses & Community Development	15	Number of educational activities related to Coastal Dependent Uses and Community Development offered by the CZM Program.	21

Texas Performance Measures

October 1, 2012 to September 30, 2013

Category		Performance Measure	Units
		Number of participants in educational activities related to coastal dependent uses and community development offered by the CZM Program.	289,426
		Number of training events related to Coastal Dependent Uses and Community Development offered by the CZM Program.	29
		Number of participants in training events related to Coastal Dependent Uses and Community Development offered by the CZM Program.	988
Financial Measures	16	Number of CZM federal and matching dollars spent on Government Coordination.	\$740,295
		Number of CZM federal and matching dollars spent on Public Access.	\$136,781
		Number of CZM federal and matching dollars spent on Coastal Habitat.	\$291,426
		Number of CZM federal and matching dollars spent on Coastal Hazards.	\$532,247
		Number of CZM federal and matching dollars spent on Coastal Dependent Uses and Community Development.	\$235,148
		Number of dollars leveraged by CZM funds for Government Coordination.	\$16,725
		Number of dollars leveraged by CZM funds for Public Access.	\$500,000
		Number of dollars leveraged by CZM funds for Coastal Habitat Activities.	\$0
		Number of dollars leveraged by CZM funds for Coastal Hazards.	\$50,000
		Number of dollars leveraged by CZM funds for Coastal Dependent Uses and community Development.	\$28,200
Financial Measures	17	Number of CZM federal and matching dollars spent on technical assistance to local governments for Government Coordination.	\$1,374,292

Texas Performance Measures

October 1, 2012 to September 30, 2013

Category	Performance Measure	Units
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Public Access.	\$0
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Coastal Habitat.	\$0
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Coastal Hazards	\$0
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Coastal Dependent Uses and Community Development.	\$2,000
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Government Coordination.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Public Access.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Coastal Habitat.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Coastal Hazards.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Coastal Dependent Uses and Community Development.	\$0

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category		Performance Measure	Units
Government Coordination and Decision Making	1	Total number of federal consistency projects technically reviewed (determined to be applicable for federal consistency review) during the reporting period.	294
		Number of federal agency activity projects reviewed where the project was modified due to consultation with the applicant to meet state CZM policies.	0
		Number of federal license or permit activity projects reviewed where the project was modified due to consultation with the applicant to meet state CZM policies.	79
		Number of Outer Continental Shelf (OCS) projects reviewed where 0 the project was modified due to consultation with the applicant to meet state CZM policies.	0
		Number of projects for federal financial assistance to state agencies or local governments reviewed where the project was modified due to consultation with the applicant to meet state CZM policies.	0
Government Coordination and Decision Making	2	Number of acres of permit-estimated loss of tidal (or Great Lake) wetlands due to activities subject to CZM regulatory programs.	15.09
		Number of acres of required gain or mitigation of tidal (or Great Lake) wetlands due to activities subject to CZM regulatory programs.	29.23
		Number of acres of permit-estimated loss of beach and dune habitat due to activities subject to CZM regulatory programs.	0.00
		Number of acres of required gain or mitigation of beach and dune habitat due to activities subject to CZM regulatory programs.	0.00
		Number of acres of permit-estimated loss of nearshore habitat (intertidal, subtidal, submerged) due to activities subject to CZM regulatory programs.	2,022.50

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category		Performance Measure	Units
		Number of acres of required gain or mitigation of nearshore habitat (intertidal, subtidal, submerged) due to activities subject to CZM regulatory programs.	211.10
		Number of acres of permit-estimated loss of other habitat types due to activities subject to CZM regulatory programs.	464.12
		Number of acres of required gain or mitigation of other habitat types due to activities subject to CZM regulatory programs.	1,091.94
Government Coordination and Decision Making	3	Number of coordination events related to Government Coordination offered by the CZM Program.	0
		Number of stakeholder groups participating in coordination events related to Government Coordination offered by the CZM Program.	0
		Number of coordination events related to Public Access offered by the CZM Program.	4
		Number of stakeholder groups participating in coordination events related to Public Access offered by the CZM Program.	48
		Number of coordination events related to Coastal Habitat offered by the CZM Program.	6
		Number of stakeholder groups participating in coordination events related to Coastal Habitat offered by the CZM Program.	117
		Number of coordination events related to Coastal Hazards offered by the CZM Program.	0
		Number of stakeholder groups participating in coordination events related to Coastal Hazards offered by the CZM Program.	0
		Number of coordination events related to Coastal Community Development and Coastal Dependent Uses offered by the CZM Program.	6

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category		Performance Measure	Units
		Number of stakeholder groups participating in coordination events related to Coastal Community Development and Coastal Dependent Uses offered by the CZM Program.	57
Government Coordination and Decision Making	4	Number of educational activities related to Government Coordination offered by the CZM Program.	5
		Number of participants in educational activities related to Government Coordination offered by the CZM program.	36
		Number of training events related to Government Coordination offered by the CZM Program.	0
		Number of participants in training events related to Government Coordination offered by the CZM Program.	0
Public Access	5	Number of public access sites created through acquisition or easement with assistance from CZM funding or staff.	0
		Number of existing public access sites enhanced with assistance from CZM funding or staff.	3
Public Access	6	Number of public access sites created through CZM regulatory requirements.	2
		Number of public access sites enhanced through CZM regulatory requirements.	2
Public Access	7	Number of educational activities related to Public Access offered by the CZM Program.	2
		Number of participants in educational activities related to Public Access offered by the CZM Program.	300
		Number of training events related to Public Access offered by the CZM Program.	0

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category		Performance Measure	Units
		Number of participants in training events related to Public Access offered by the CZM Program.	0
Coastal Habitat	8	Number of acres of tidal or Great Lake wetlands protected by acquisition or easement with assistance from CZM funding or staff.	0.00
		Number of acres of tidal or Great Lake wetlands under restoration with assistance from CZM funding or staff.	3.00
		Number of acres of beach and dune habitat protected by acquisition or easement with assistance from CZM funding or staff.	0.00
		Number of acres of beach and dune habitat under restoration with or easement with assistance from CZM funding or staff.	5.67
		Number of acres of nearshore habitat (intertidal, subtidal, and submerged) protected by acquisition or easement with assistance from CZM funding or staff.	0.00
		Number of acres of nearshore habitat (intertidal, subtidal, and submerged) under restoration with assistance from CZM funding or staff.	34.00
		Number of acres of other types of habitat protected by acquisition or easement with assistance from CZM funding or staff.	40.00
		Number of acres of other types of habitat under restoration with assistance from CZM funding or staff.	1,225.31
		Number of meters of beach and dune habitat protected by acquisition or easement with assistance from CZM funding or staff.	0
		Number of meters of beach and dune habitat under restoration with assistance from CZM funding or staff.	0
		Number of meters of nearshore habitat (intertidal, subtidal, and submerged) protected by acquisition or easement with assistance from CZM funding or staff.	0

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category		Performance Measure	Units
		Number of meters of nearshore habitat (intertidal, subtidal, and submerged) under restoration with assistance from CZM funding or staff.	0
		Number of meters of other types of habitat protected by acquisition or easement with assistance from CZM funding or staff.	0
		Number of meters of other types of habitat under restoration with assistance from CZM funding or staff.	0
Coastal Habitat	9	Number of marine debris removal activities completed with assistance from CZM funding or staff.	4
		Estimated number of pounds of debris removed by the above reported marine debris removal activities.	521,887
Coastal Habitat	10	Number of educational activities related to Coastal Habitat offered by the CZM Program.	39
		Number of participants in educational activities related to Coastal Habitat offered by the CZM Program.	15,354
		Number of training events related to Coastal Habitat offered by the CZM Program.	2
		Number of participants in training events related to Coastal Habitat offered by the CZM Program.	21
Coastal Habitat	11	Number of communities that completed a project to reduce future damage from hazards with assistance from CZM funding or staff.	0
		Number of communities that completed a project to increase public awareness of hazards with assistance from CZM funding or staff.	7
		Number of educational activities related to Coastal Hazards offered by the CZM Program.	9

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category		Performance Measure	Units
		Number of participants in educational activities related to Coastal Hazards offered by the CZM Program.	315
Coastal Habitat		Number of training events related to Coastal Hazards offered by the CZM Program.	2
		Number of participants in training events related to Coastal Hazards offered by the CZM Program.	52
Coastal Dependent Uses & Community Development	13	Number of coastal communities that developed or updated sustainable development ordinances, policies, and plans with assistance from CZM funding or staff.	10
		Number of coastal communities that completed a project to implement a sustainable development plan with assistance from CZM funding or staff.	0
		Number of coastal communities that developed or updated port or waterfront redevelopment ordinances, policies, and plans with assistance from CZM funding or staff.	0
		Number of coastal communities that completed a project to implement a port or waterfront redevelopment plan with assistance from CZM funding or staff.	0
Coastal Dependent Uses & Community Development	14	Number of coastal communities that developed or updated polluted runoff management ordinances, policies, and plans with assistance from CZM funding or staff.	0
		Number of coastal communities that completed projects to implement polluted runoff management plans with assistance from CZM funding or staff.	0
Coastal Dependent Uses & Community Development	15	Number of educational activities related to Coastal Dependent Uses and Community Development offered by the CZM Program.	58

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category		Performance Measure	Units
		Number of participants in educational activities related to coastal dependent uses and community development offered by the CZM Program.	210,054
		Number of training events related to Coastal Dependent Uses and Community Development offered by the CZM Program.	32
		Number of participants in training events related to Coastal Dependent Uses and Community Development offered by the CZM Program.	377
Financial Measures	16	Number of CZM federal and matching dollars spent on Government Coordination.	\$795,524
		Number of CZM federal and matching dollars spent on Public Access.	\$294,524
		Number of CZM federal and matching dollars spent on Coastal Habitat.	\$1,782,566
		Number of CZM federal and matching dollars spent on Coastal Hazards.	\$258,373
		Number of CZM federal and matching dollars spent on Coastal Dependent Uses and Community Development.	\$322,570
		Number of dollars leveraged by CZM funds for Government Coordination.	\$777,755
		Number of dollars leveraged by CZM funds for Public Access.	\$117,859
		Number of dollars leveraged by CZM funds for Coastal Habitat Activities.	\$256,536
		Number of dollars leveraged by CZM funds for Coastal Hazards.	\$0
		Number of dollars leveraged by CZM funds for Coastal Dependent Uses and community Development.	\$25,000
Financial Measures	17	Number of CZM federal and matching dollars spent on technical assistance to local governments for Government Coordination.	\$0

Texas Performance Measures

October 1, 2013 to September 30, 2014

Category	Performance Measure	Units
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Public Access.	\$0
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Coastal Habitat.	\$0
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Coastal Hazards.	\$0
	Number of CZM federal and matching dollars spent on technical assistance to local governments for Coastal Dependent Uses and Community Development.	\$2,000
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Government Coordination.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Public Access.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Coastal Habitat.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Coastal Hazards.	\$0
	Number of CZM federal and matching dollars provided as financial assistance to local governments for Coastal Dependent Uses and Community Development.	\$0

EDUCATION AND OUTREACH



Since the inception of the Texas Coastal Management Program various publications have been created and distributed to fulfill the CMP goal of educating the public about the principal coastal problems of state concern and technology available for the protection and improved management of the CNRAs. Publications are evaluated on a regular basis to determine gaps in needed materials, to provide updates on already available publications, and to reflect current areas of focus on the coast. Publications listed below reflect those that were created over the last year as well as those that are considered current publications and are distributed to the public. Past publications can be found on our website at www.TexasCoastalConnection.com.

Reports

[Texas Coastal Management Program 2013-2014 Biennial Report](#): A biennial report published by the Council for the Legislature that includes yearly program initiatives, updates on the total number of consistency reviews conducted, Permit Service Center activities and reports on the annual grant program. Demographics on the Texas coast are provided in the report on a biennial schedule.

[Coastal Erosion Planning and Response Act \(CEPRA\): Report to the 83rd Texas Legislature, April 2013](#): A biennial report to the Legislature that provides the information specified by CEPRA (Natural Resources Code §33.608) and highlights both the progress and the challenges of the CEPRA program over the first seven biennial cycles of its implementation.

Guidebooks, Manuals, Brochures, etc.

[Beach Watch](#): An informational brochure describing the Beach Watch program and how to access the website to check on the water quality of beaches. August 2011.

[Texas Homeowner's Handbook to Prepare for Coastal Natural Hazards](#), developed in cooperation with the Texas Sea Grant College Program, offers advice on how to protect yourself and your family from natural disasters, how to storm-harden your home, the importance of flood insurance and useful Web links and disaster preparation checklists. March 2013.

[The Texas Coast: Shoring Up Our Future](#), An overview report that highlights the environmental and industrial features along the Texas coast, and identifies the primary issues of concern threatening its sustainability. April 2013.

Websites

ShoringUpTexas.org, currently a website that will raise awareness of how important the coast is to Texans and the entire nation by featuring coastal values, threats, resiliency efforts, planning tools and opportunities to get involved in enhancing the Texas coast.

TCOON: <http://www.cbi.tamucc.edu/TCOON/>

Resource Management Codes: development guidelines for activities on state-owned submerged land tracts. <http://www.glo.texas.gov/what-we-do/energy-and-minerals/resource-management-codes/index.html>.

Aerial Photography: <http://www.glo.texas.gov/GLO/agency-administration/gis/index.html>

Geographic Information System (GIS) Data: <http://www.glo.texas.gov/GLO/agency-administration/gis/gis-data.html>

COASTAL DEMOGRAPHICS



County Population/Projections

County	2010 Census	2020 Projection	2030 Projection	2040 Projection
Upper Coast				
Brazoria	313,166	339,245	361,915	380,301
Chambers	35,096	37,464	39,732	40,398
Galveston	291,309	308,347	320,723	325,644
Harris	4,092,459	4,532,775	4,882,019	5,169,611
Jefferson	252,273	267,930	292,192	324,658
Orange	81,837	85,262	87,620	88,058
Middle Coast				
Calhoun	21,381	22,682	23,856	24,675
Jackson	14,075	14,851	15,663	16,268
Matagorda	36,702	39,042	41,079	42,654
Refugio	7,383	7,753	8,133	8,418
Victoria	86,793	94,032	100,490	105,766
Coastal Bend				
Aransas	23,158	23,016	22,510	22,017
Kleberg	32,061	35,537	38,918	42,479
Nueces	340,223	362,319	381,137	392,834
San Patricio	64,804	70,651	76,679	81,828
Lower Coast				
Cameron	406,220	465,569	531,850	599,356
Kenedy	416	462	496	506
Willacy	22,134	24,595	27,020	29,355
State Totals	25,145,561	27,373,633	29,289,940	30,823,109

Source: Office of the State Demographer and the Texas State Data Center in the Institute for Demographic and Socioeconomic Research at the University of Texas at San Antonio (November 2012)

Water Usage/Projections

County	Municipal	Manuf.	Mining	Steam Electric	Livestock	Irrigation	Total
Upper Coast							
Brazoria							
2020	53,510	247,938	968	0	1,650	109,803	413,869
2030	60,713	267,567	1,189	0	1,650	109,803	440,922
2040	67,332	287,195	1,389	0	1,650	109,803	467,369
2050	74,809	306,824	1,609	0	1,650	109,803	494,695
2060	83,472	326,452	1,833	0	1,650	109,803	523,210
Chambers							
2020	7,313	11,043	5,621	3,536	554	84,266	112,333
2030	8,692	11,919	5,621	4,134	554	84,266	115,186
2040	10,151	12,792	5,621	4,863	554	84,266	118,247
2050	11,772	13,577	5,621	5,751	554	84,266	121,541
2060	13,557	14,591	5,621	6,834	554	84,266	125,423
Galveston							
2020	57,184	56,394	381	0	254	6,300	120,513
2030	61,095	57,522	408	0	254	6,300	125,579
2040	64,234	58,672	450	0	254	6,300	129,910
2050	67,441	59,846	486	0	254	6,300	134,327
2060	70,382	61,042	520	0	254	6,300	138,498
Harris							
2020	819,722	424,761	3,273	23,556	1,667	7,240	1,280,219
2030	862,133	449,218	3,252	27,540	1,667	7,240	1,351,050
2040	903,668	470,881	3,194	32,396	1,667	7,240	1,419,046
2050	948,449	487,094	3,159	38,316	1,667	7,240	1,485,925
2060	998,117	478,957	3,132	45,532	1,667	7,240	1,534,645
Jefferson							
2020	60,097	423,258	194	13,426	943	161,952	659,870
2030	62,065	603,321	216	15,696	943	171,165	853,406
2040	64,251	629,171	244	18,464	943	177,490	890,563
2050	67,481	655,034	294	21,838	943	179,735	925,325
2060	71,441	680,914	329	25,951	943	177,394	956,972

Water Usage/Projections

County	Municipal	Manuf.	Mining	Steam Electric	Livestock	Irrigation	Total
Orange							
2020	10,643	64,461	309	4,966	208	3,730	84,317
2030	10,691	70,439	314	5,805	208	3,983	91,440
2040	10,818	76,399	313	6,829	208	4,156	98,723
2050	10,963	81,690	314	8,077	208	4,218	105,470
2060	11,099	87,641	319	9,598	208	4,153	113,018
Middle Coast							
Calhoun							
2020	2,980	54,857	52	0	344	13,472	71,705
2030	3,204	59,235	55	0	344	11,935	74,773
2040	3,445	63,575	41	0	344	10,894	78,299
2050	3,708	67,406	30	0	344	10,148	81,636
2060	3,998	72,238	19	0	344	9,453	86,052
Matagorda							
2020	5,123	16,253	96	105,000	1,503	209,087	337,062
2030	5,193	16,991	100	105,000	1,503	203,382	332,169
2040	5,202	17,686	75	105,000	1,503	197,830	327,296
2050	5,831	18,259	55	105,000	1,503	192,428	323,076
2060	5,259	19,267	35	105,000	1,503	187,171	318,235
Jackson							
2020	1,855	670	70	0	1,034	59,801	63,430
2030	1,849	690	73	0	1,034	59,801	63,447
2040	1,820	709	55	0	1,034	59,801	63,419
2050	1,813	725	40	0	1,034	59,801	63,413
2060	1,820	771	26	0	1,034	59,801	63,452
Refugio							
2020	1,682	0	66	0	636	652	3,036
2030	1,681	0	69	0	636	652	3,038
2040	1,649	0	51	0	636	652	2,988
2050	1,665	0	38	0	636	652	2,991
2060	1,195	0	24	0	636	652	2,507

Water Usage/Projections

County	Municipal	Manuf.	Mining	Steam Electric	Livestock	Irrigation	Total
Victoria							
2020	20,160	30,977	72	5,530	1,165	21,215	79,119
2030	21,089	33,815	75	30,802	1,165	21,215	108,161
2040	21,805	36,640	56	38,202	1,165	21,215	119,083
2050	22,552	39,165	41	54,623	1,165	21,215	138,761
2060	23,278	42,005	27	71,720	1,165	21,215	159,410
Coastal Bend							
Aransas							
2020	3,511	137	10	0	44	0	3,702
2030	3,482	142	7	0	44	0	3,675
2040	3,395	147	5	0	44	0	3,591
2050	3,376	151	5	0	44	0	3,576
2060	3,367	161	5	0	44	0	3,577
Kleberg							
2020	5,174	0	357	0	1,276	600	7,407
2030	5,481	0	360	0	1,276	630	7,747
2040	5,799	0	340	0	1,276	662	8,077
2050	6,158	0	324	0	1,276	695	8,453
2060	6,539	0	308	0	1,276	729	8,852
Nueces							
2020	73,171	50,276	724	15,038	315	439	139,963
2030	77,719	53,425	853	17,582	315	461	150,355
2040	80,303	56,500	947	20,681	315	484	159,230
2050	81,882	59,150	1,021	24,461	315	508	167,337
2060	83,417	63,313	1,130	29,067	315	534	177,776
San Patricio							
2020	10,145	39,737	372	0	406	11,085	61,745
2030	10,323	43,098	421	0	406	12,244	66,492
2040	10,391	46,416	440	0	406	13,525	71,178
2050	10,489	49,338	460	0	406	14,940	75,633
2060	10,598	53,027	492	0	406	16,504	81,027

Water Usage/Projections

County	Municipal	Manuf.	Mining	Steam Electric	Livestock	Irrigation	Total
Lower Coast							
Cameron							
2020	81,393	4,708	244	1,523	334	355,962	444,164
2030	92,861	5,111	255	1,780	334	339,470	439,811
2040	104,873	5,510	176	2,094	334	322,622	435,609
2050	118,439	5,856	116	2,477	334	305,522	432,744
2060	132,937	6,324	56	2,944	334	288,601	431,196
Kenedy							
2020	244	0	118	0	644	0	1006
2030	261	0	123	0	644	0	1028
2040	262	0	92	0	644	0	998
2050	263	0	68	0	644	0	975
2060	264	0	43	0	644	0	951
Willacy							
2020	3,257	136	49	0	261	69,253	72,956
2030	3,557	136	51	0	261	69,074	73,079
2040	3,871	136	38	0	261	68,936	73,242
2050	4,235	136	28	0	261	68,814	73,474
2060	4,610	136	18	0	261	68,741	73,766

Source: Texas Water Development Board, 2016 Regional Water Plan, County Water Demand Projections 2020-2070 in acre foot by Category. An acre foot is the amount of water to cover one acre with one foot of water and is equal to 325,851 gallons.

Commercial Fisheries Data: Tonnage in Pounds

Port/Year	Rank (by pounds)	Millions of Pounds	Millions of Dollars
Brownsville/ Port Isabel			
2012	36	23	53.6
2011	34	24.8	58.2
2010	32	22.7	52.5
2009	28	27	41
Galveston			
2012	35	26.6	74.3
2011	44	18.7	46.9
2010	48	13.4	28
2009	33	22	35
Palacios			
2012	64	8.9	21.2
2011	50	14.9	35.8
2010	47	13.9	31.9
2009	37	20	27
Port Arthur			
2012	40	20.4	47.4
2011	40	21.3	57.1
2010	37	19.6	47.4
2009	44	16	27

Source: National Marine Fisheries Service, Landings by Port Ranked by Pounds.

County Onshore Oil and Gas Production

County	Oil (BBL)	Casinghead (MCF)	GW Gas (MCF)	Condensate (BBL)
Upper Coast				
Brazoria				
2013	2,897,805	1,701,309	9,741,427	241,802
2012	2,961,744	2,122,371	12,652,549	310,891
2011	1,389,409	2,120,977	20,140,216	624,232
2010	1,709,268	2,487,189	26,111,418	731,173
Chambers				
2013	3,161,938	974,363	2,966,630	106,307
2012	2,627,284	846,189	4,334,418	183,949
2011	1,064,074	1,232,031	4,548,382	169,448
2010	1,994,919	1,511,519	8,791,275	211,824
Galveston				
2013	369,683	307,877	2,243,711	90,488
2012	409,709	677,820	5,337,574	175,316
2011	530,684	663,346	5,970,221	333,582
2010	547,583	848,338	8,328,118	494,411
Harris				
2013	1,093,789	593,837	11,358,443	178,586
2012	1,236,823	783,262	15,098,935	239,677
2011	1,161,900	947,316	19,396,508	326,613
2010	1,178,527	1,120,028	21,577,227	369,712
Jefferson				
2013	774,644	894,586	15,661,096	897,673
2012	856,075	933,143	32,453,852	1,582,363
2011	828,773	1,536,991	58,404,241	3,522,769
2010	895,823	1,669,920	115,494,525	7,074,385
Orange				
2013	445,922	992,535	6,407,832	432,535
2012	617,525	1,322,467	10,450,202	649,384
2011	849,765	1,797,714	17,957,385	986,633
2010	472,053	1,119,867	11,699,153	746,835

County Onshore Oil and Gas Production

County	Oil (BBL)	Casinghead (MCF)	GW Gas (MCF)	Condensate (BBL)
Middle Coast				
Calhoun				
2013	121,585	234,424	3,662,348	107,064
2012	171,747	410,246	4,453,789	144,425
2011	149,166	153,013	4,882,697	145,646
2010	166,967	191,612	6,557,183	171,838
Jackson				
2013	657,470	828,649	5,833,630	197,746
2012	693,772	931,787	6,308,222	250,506
2011	663,110	1,036,665	9,098,950	283,509
2010	702,867	1,075,633	13,073,986	319,000
Matagorda				
2013	203,825	358,914	19,021,965	349,488
2012	274,774	523,529	19,076,377	394,513
2011	365,949	1,127,186	24,412,179	576,590
2010	400,786	1,122,291	29,177,065	615,277
Refugio				
2013	2,830,843	11,733,414	2,497,726	78,915
2012	3,313,975	13,368,239	3,093,560	101,891
2011	3,512,195	12,455,662	5,645,660	123,427
2010	3,736,173	16,586,706	7,954,267	180,192
Victoria				
2013	568,814	661,933	4,166,940	65,453
2012	541,641	542,184	5,517,921	59,809
2011	564,539	472,486	7,675,935	75,427
2010	617,949	739,523	8,937,017	91,253
Coastal Bend				
Aransas				
2013	54,311	376,689	5,694,046	164,941
2012	84,122	348,054	4,458,873	103,731
2011	96,301	244,636	5,237,123	134,401
2010	50,489	262,295	6,757,353	189,898

County Onshore Oil and Gas Production

County	Oil (BBL)	Casinghead (MCF)	GW Gas (MCF)	Condensate (BBL)
Kleberg				
2013	226,569	583,220	11,266,453	99,280
2012	248,542	839,817	16,083,672	200,260
2011	322,539	360,196	18,642,568	124,465
2010	159,181	153,421	17,505,012	174,320
Nueces				
2013	296,357	619,037	12,455,419	310,828
2012	398,230	826,801	18,680,916	445,825
2011	515,863	1,200,578	30,951,967	341,560
2010	496,786	1,292,523	28,501,367	546,480
San Patricio				
2013	384,547	639,505	11,899,375	467,987
2012	416,107	802,048	11,084,523	493,290
2011	446,361	771,102	11,026,643	381,067
2010	405,413	755,570	17,112,218	647,239
Lower Coast				
Cameron				
2013	0	0	299,207	410
2012	0	0	552,507	572
2011	425	3	1,025,290	3,515
2010	610	156	133,086	155
Kenedy				
2013	72,764	260,686	24,632,186	162,550
2012	62,313	240,322	21,846,392	93,579
2011	51,808	312,847	38,025,194	233,658
2010	72,751	797,426	47,380,132	293,500
Willacy				
2013	245,737	138,314	7,730,112	93,448
2012	292,136	207,688	8,889,143	125,617
2011	338,318	323,092	17,388,729	274,445
2010	339,712	399,276	24,152,092	426,599

Source: Railroad Commission of Texas

Offshore Oil and Gas Production (by Offshore Block)

Area	Oil (BBL)	Casinghead (MCF)	GW Gas (MCF)	Condensate (BBL)
Brazos LB				
2014	0	0	127,096	230
2013	0	0	223,353	130
2012	0	0	801,594	556
2011	0	0	1,787,974	804
Galveston LB				
2014	168,476	91,982	959,806	162,870
2013	298,207	194,383	2,171,865	219,776
2012	157,416	393,771	2,172,685	221,182
2011	0	0	3,425,325	271,207
High Island LB				
2014	90,072	117,745	4,942,736	29,542
2013	88,052	112,860	5,889,527	74,606
2012	118,258	112,328	7,452,963	109,802
2011	180,779	114,901	9,542,184	206,367
Matagorda Island LB				
2014	101,110	43,522	2,323,741	2,846
2013	183,806	418,840	3,610,994	3,396
2012	235,615	560,882	3,268,732	2,933
2011	365,482	750,709	3,634,701	5,536
Mustang Island LB				
2014	503	0	928,331	12,937
2013	4,990	21,093	1,084,821	14,937
2012	0	0	1,151,400	15,693
2011	0	0	1,809,073	23,920
North Padre Island LB				
2014	0	0	0	0
2013	0	0	35,971	2,398
2012	0	0	295,733	9,256
2011	0	0	297,276	10,572

Source: Railroad Commission of Texas

Per Capita Personal Income by County

County	2009	2010	2011	2012
Upper Coast				
Brazoria	36,355	37,081	36,677	40,351
Chambers	42,035	45,681	48,969	51,897
Galveston	41,654	41,876	43,444	45,433
Harris	43,866	45,991	48,935	52,805
Jefferson	35,006	36,752	38,712	38,357
Orange	34,547	36,328	38,163	38,871
Middle Coast				
Calhoun	29,357	30,964	32,413	35,177
Jackson	28,944	31,178	33,937	36,406
Matagorda	30,336	31,564	33,287	33,696
Refugio	32,177	35,686	39,958	44,770
Victoria	37,719	39,488	42,452	44,630
Coastal Bend				
Aransas	38,439	40,411	42,512	43,581
Kleberg	30,195	31,464	33,734	35,884
Nueces	34,439	36,545	38,441	40,918
San Patricio	33,135	35,885	38,087	39,137
Lower Coast				
Cameron	21,570	22,557	23,236	23,909
Kenedy	37,811	42,945	51,037	59,278
Willacy	22,499	24,900	26,462	26,731
Source: Bureau of Economic Analysis (Last updated May 30, 2014)				

Per Capita Personal Income by County

County	2010 Census	2020 Projection	2030 Projection	2040 Projection
Upper Coast				
Brazoria	313,166	339,245	361,915	380,301
Chambers	35,096	37,464	39,732	40,398
Galveston	291,309	308,347	320,723	325,644
Harris	4,092,459	4,532,775	4,882,019	5,169,611
Jefferson	252,273	267,930	292,192	324,658
Orange	81,837	85,262	87,620	88,058
Middle Coast				
Calhoun	21,381	22,682	23,856	24,675
Jackson	14,075	14,851	15,663	16,268
Matagorda	36,702	39,042	41,079	42,654
Refugio	7,383	7,753	8,133	8,418
Victoria	86,793	94,032	100,490	105,766
Coastal Bend				
Aransas	23,158	23,016	22,510	22,017
Kleberg	32,061	35,537	38,918	42,479
Nueces	340,223	362,319	381,137	392,834
San Patricio	64,804	70,651	76,679	81,828
Lower Coast				
Cameron	406,220	465,569	531,850	599,356
Kenedy	416	462	496	506
Willacy	22,134	24,595	27,020	29,355
State Totals	25,145,561	27,373,633	29,289,940	30,823,109

Source: Office of the State Demographer and the Texas State Data Center in the Institute for Demographic and Socioeconomic Research at the University of Texas at San Antonio (November 2012)

Tonnage for Texas Ports

Port	Rank	Domestic	Foreign	Imports	Exports	Total
Houston						
2012	2	75,742,260	162,443,322	83,816,269	78,627,053	238,185,582
2011	2	70,721,272	167,077,367	88,889,008	78,188,359	237,798,639
2010	2	67,572,638	159,560,593	88,507,605	71,052,988	227,133,231
2009	2	63,371,521	147,969,451	84,629,722	63,339,729	211,340,972
2008	2	65,808,295	146,399,626	92,018,956	54,380,670	212,207,921
Corpus Christi						
2012	7	23,300,339	45,701,018	30,878,967	14,822,051	69,001,357
2011	8	17,603,975	52,933,757	36,354,382	16,579,375	70,537,732
2010	6	18,840,615	54,822,817	41,654,989	13,167,828	73,663,432
2009	6	17,435,654	50,508,314	39,673,722	11,130,592	68,239,968
2008	6	21,430,962	55,355,211	43,373,738	11,981,473	76,786,173
Beaumont						
2012	5	28,830,962	49,684,048	40,615,037	9,069,011	78,515,010
2011	6	25,841,403	47,830,666	38,854,187	8,976,479	73,672,069
2010	4	25,176,606	51,781,986	44,309,994	7,471,992	76,958,592
2009	7	67,715,469	24,428,821	43,286,648	36,873,234	6,413,414
2008	7	22,687,915	46,795,624	41,167,853	5,627,771	69,483,539
Texas City						
2012	11	20,761,770	35,959,857	27,660,191	8,299,666	56,721,627
2011	12	18,867,032	38,890,500	30,510,237	8,380,263	57,757,532
2010	10	16,515,074	40,075,782	32,553,419	7,522,363	56,590,856
2009	10	16,156,660	36,475,801	31,701,199	4,774,602	52,632,461
2008	13	13,895,595	38,710,432	33,926,630	4,783,805	52,606,030
Port Arthur						
2012	23	10,745,809	19,872,314	10,694,732	9,177,582	30,618,123
2011	24	10,205,058	20,069,678	11,936,521	8,133,157	30,274,736
2010	25	10,766,872	19,464,914	10,782,699	8,682,215	30,231,786
2009	19	9,418,964	24,385,235	14,440,672	9,944,563	33,804,199
2008	25	10,004,521	21,748,221	14,834,711	6,913,510	31,752,742

Tonnage for Texas Ports

Port	Rank	Domestic	Foreign	Imports	Exports	Total
Freeport						
2012	31	5,607,875	16,476,676	14,374,246	2,102,430	22,084,551
2011	30	4,734,136	18,577,732	16,291,250	2,286,482	23,311,868
2010	27	4,347,395	22,328,447	20,083,819	2,244,628	26,675,842
2009	27	4,025,067	23,337,698	21,093,998	2,243,700	27,362,765
2008	26	4,135,091	25,707,204	22,971,011	2,736,193	29,842,295
Galveston						
2012	47	6,851,348	4,767,020	1,872,763	2,894,257	11,618,368
2011	40	6,472,905	7,270,766	1,927,537	5,343,229	13,743,671
2010	41	5,934,427	8,014,469	1,877,503	6,136,966	13,948,896
2009	47	5,248,200	4,543,707	1,105,885	3,434,877	9,791,907
2008	54	4,199,979	5,581,389	1,825,635	3,755,754	9,781,368
Brownsville						
2012	69	6,851,348	4,767,020	1,872,763	2,894,257	11,618,368
2011	66	2,478,100	3,428,941	2,899,973	528,968	5,907,041
2010	78	2,135,268	2,481,224	2,257,293	223,931	4,616,492
2009	72	1,530,570	3,143,759	2,928,230	215,529	4,674,329
2008	76	1,843,662	3,825,783	3,541,172	284,611	5,669,445
Victoria						
2012	78	4,517,632				4,517,632
2011	82					3,528,265
2010	89	2,792,180				2,792,180
2009	105	1,951,820				1,951,820
2008	94	2,861,933				2,861,933

Source: U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center



Texas Coastal Management Program

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1.866.894.7664 (Upper Coast Office)

permitting.assistance@glo.texas.gov

www.glo.texas.gov/what-we-do/caring-for-the-coast/permit-assistance/html

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