



A Message from the Director

JULIE MCENTIRE

Welcome to the first Coastal Management Program (CMP) newsletter in a decade! We're so glad you're interested in reading more about the work the Texas General Land Office (GLO) is doing along the coast. This newsletter will come out semiannually and cover topics pertaining to the CMP and Coastal Erosion Planning and Response Act (CEPRA) programs, provide updates on large-scale coastal planning endeavors and take a closer look at federal activities taking place in state waters. The newsletter will also keep you apprised of recently funded GLO projects and upcoming trainings, meetings and events from both the GLO and our partners. I hope you enjoy reading and we look forward to providing you with more updates on how we're working to create a strong and resilient Texas coast.



New Tools & Technology

Understanding & Reducing Flood Risk with NOAA's Digital Coast Resources // KRISTIN RANSOM

It's no secret that flooding is a growing problem for coastal communities. Understanding flood-related risk is a key component of community preparedness efforts. Helping communities "see" increasing risk is an effective way to galvanize public support. The National Oceanographic Atmospheric Administration's (NOAA) Digital Coast website has the data, tools, and resources communities need for this task. Some of these helpful resources include:

The natural infrastructure topic page has information related to natural infrastructure (sometimes called "green infrastructure"), which encompasses the use of natural systems to absorb and clean flood waters, buffer storms, and reduce erosion. This page can point you to trainings, data, how-to-guides, case studies, and even steps you can take to determine the economic return on investment for your green infrastructure technique choices.

Communities can pinpoint the people, places, and natural resources exposed to coastal flooding using the Coastal Flood Exposure Mapper. Viewable flood layers include high tide flooding, FEMA flood zones, storm surge, sea level rise, and coastal flood hazard composite, which shows areas prone to flooding from one or more of the previously mentioned flood hazards. The Sea Level Rise Viewer enables communities to see how sea level rise will impact areas along the coast. Users can use the slider bar to test several sea level rise scenarios extending up to ten feet and even see photo simulations at select locations. Viewable flood layers include high tide flooding, FEMA flood zones, storm surge, sea level rise, and coastal flood hazard composite, which shows areas prone to flooding from one or more of the previously mentioned flood hazards.



NOAA Website tools available online.



The Digital Coast Academy section of the website offers an extensive supply of learning opportunities, from quick reference documents to training programs that can be brought to your location. For example, How To Map Open Space for Community Rating System Credit is a self-guide that provides seven steps communities should consider to reduce flood risk and earn FEMA flood insurance premium discounts for citizens. Explore these and other resources at <https://coast.noaa.gov/digitalcoast/> Sign up for Digital Coast Connections e-newsletter for the latest from NOAA's Office for Coastal Management.

Texas Sites & Coastal Sights

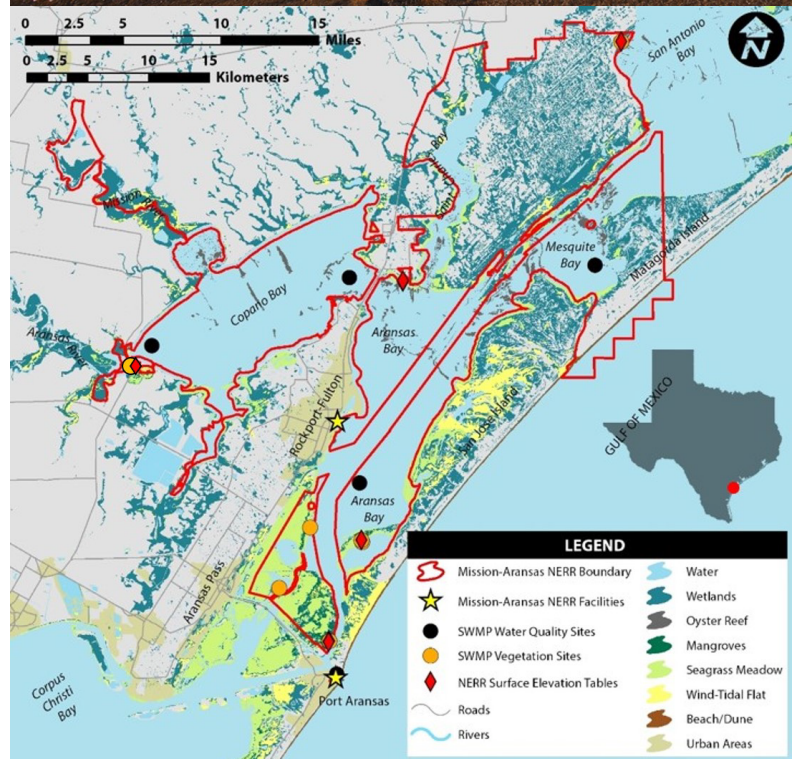
Mission Aransas NERR // SARAH CUMMINGHAM

The Mission-Aransas National Estuarine Research Reserve (NERR) is a federal-state partnership encompassing over 186,000 acres along Texas' mid-coast. It is one of 29 reserves around the country designated for the protection and study of estuarine systems, known as the National Estuarine Research Reserve (NERR) system. NOAA funds 70% of the program and the University of Texas (UT) funds the other 30%. The UT Marine Science Institute administers the program.

The Reserve's goal is to improve and promote knowledge and appreciation of Texas coastal zone ecosystem structure and function by diverse audiences statewide. It achieves this via four sectors. Research conducts studies and monitoring programs within the reserve boundary, often focusing on water quality, freshwater inflows, and the impacts of climate change. Stewardship cares for the many habitats and species represented at the reserve by monitoring and removing debris, coordinating management activities, and rescuing and rehabilitating sick and injured animals via the Amos Rehabilitation Keep (ARK). Education offers a variety of environmental learning experiences to K-12 students, family, and adults to learn about estuaries, as well as host workshops to teach teachers how to bring estuarine science into their classrooms. Coastal Training outsources the research conducted in the reserve and the NERR system to coastal decision-makers, such as resource managers, local governments, and scientists at other institutions.

Hurricane Harvey caused significant damage to the Reserve, crippling our educational capacities and tying us up in recovery efforts. We received \$11.7 million from NOAA to repair and update our facilities. Two and a half years later, we are nearly at 80% operations again. In the midst of recovery, we found time to launch Nurdle Patrol (a citizen-scientist project to track nurdles along the Gulf Coast), host the Hurricane Harvey Research and Texas Plastic Pollution symposia, and work with partners on a wetland restoration project in Copano Bay.

So far in 2020, we've re-opened our Bay Education Center in Rockport, and worked with local non-profits to remove derelict crab traps from the reserve during the 2020 crab fishery closure. We are looking forward to opening the ARK to the public for the first time ever, bringing together researchers from across the state for the Texas Bays & Estuaries Conference in April 2020, and running the UT Summer Science Camp in June 2020. We also plan to work with partners to acquire wetlands for future protection, continue our decade long water quality monitoring program (recently updated to stream data in real-time), support key environmental projects throughout South Texas with partners, expand Nurdle Patrol nationally, and mentor a handful of students through fellowships and internship opportunities. Find out more about Mission-Aransas Reserve by visiting www.missionaransas.org.



Boundary map of the Mission-Aransas National Estuarine Research Reserve (NERR), and the infrastructure managed by the Reserve.



Federal Activities in Coastal Waters

Deep Water Port News // JAQUELYN BOUTWELL, J.D.

The Deepwater Port Act of 1974 (DWP Act), as amended, establishes a licensing system for ownership, construction, operation, and decommissioning of deepwater port structures located beyond the U.S. territorial sea for the import and export of oil and natural gas. The DWP Act sets conditions that deepwater port license applicants must meet, including minimizing adverse impacts on the marine environment and requiring applicants to submit detailed construction, operation, and decommissioning plans for deepwater ports. The DWP Act also has an expedited 356-day review process that requires the Maritime Administration (MARAD) and the U.S. Coast Guard (USCG) to consult with federal, state, local agencies, and public entities and to meet all statutory requirements set out under the DWP Act and National Environmental Policy Act (NEPA).

Texas has three pending DWP applications. As Texas is an adjacent coastal state, the Texas Governor must approve or deny each Texas DWP application. All three applications are for oil export facilities and each would export 80-85 thousand barrels per hour. SPOT and Texas Gulf Link, LLC are targeted for Brazoria County, while Bluewater Texas Terminal would be in San Patricio/ Aransas County. Additionally, all Texas DWP applications must be consistent with the Texas Coastal Management Plan. More information on the applications can be found at www.regulations.gov using the docket no in the table below.

DWP APPLICANT	DOCKET NO. MARAD	APPLICATION DATE
SPOT (Sea Port Oil Terminal/Enterprise Products)	2019-0011	January 31, 2019
Bluewater Texas Terminal, LLC (Philips 66)	2019-0094	June 30, 2019
Texas Gulf Link, LLC (Sentinel Midstream, LLC)	2019-0093	June 30, 2019

The Deeper Dive

Rollover Pass

Rollover Pass lies underneath a State Highway 87 bridge that moves drivers from the western tip of the Bolivar Peninsula to the rest of Texas. The Gulf of Mexico and Rollover Bay were connected by Rollover Pass in 1955 by the Texas Game and Fish Commission (now Texas Parks & Wildlife). The pass was cut into the narrowest point of Bolivar Peninsula to improve water quality and salinity in the bay, and to help with fish migration. Unfortunately, creating the pass resulted in severely damaging side effects that threatened public and private property and cost Texas and U.S. taxpayers hundreds of thousands of dollars every year. In 2011, the Texas Legislature authorized the closure of Rollover Pass and in September 2019, the General Land Office began the closure process.

The closing of Rollover Pass can be broken down into three phases: preconstruction work, demolition, and construction. The GLO is currently in the construction phase of the project. Though the water is gone, there is still work to be done. The construction team is backfilling the pass with “fill material,” consisting of concrete rubble, standard quality sand, and beach quality sand. After this process is complete, beach quality sand will be used to create a new dune on the Gulf side. Next, the temporary walls will be removed, and stormwater runoff swales (shallow ditches) will be created on the Bay side. The contractor will then clean up the site and remove their equipment and fencing. Then, on top of the old site of Rollover Pass, a new Bayside park will be constructed by Galveston County. Learn more about Rollover Pass and Bayside Park at <https://www.glo.texas.gov/coast/coastal-management/rollover-pass/index.html>

PARK RENDERINGS

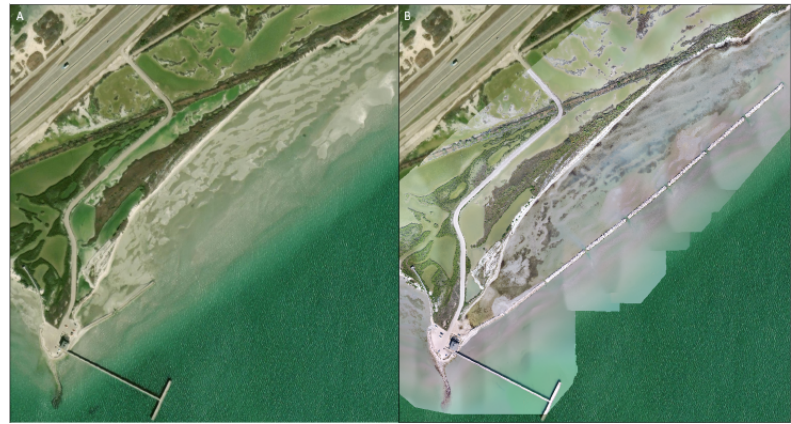


Removing fish from Rollover Pass during the construction phase of the project.

Keeping up with CEPRA

Protecting Indian Point Shoreline Habitat

The Indian Point Shoreline Protection Project constructed 1,800 linear feet of breakwater along the shoreline of Indian Point Park in Portland, Texas along the Nueces Bay Causeway. The Project protects 50 acres of critical seagrass, coastal marsh, lagoons, and associated uplands of Indian Point Park and Sunset Lake bird sanctuary. The Project's breakwaters will protect the habitats from wave action, saltwater intrusion, and continued erosion of the shoreline. Project construction was initiated in August 2019 and completed in December 2019. The Project was funded with Coastal Erosion Planning and Response Act (CEPRA) Cycle 9 and Natural Resource Damage Assessment (NRDA) Deepwater Horizon funds. Project stakeholders include: GLO, National Resource Damage Assessment (NRDA) Trustees, the Port of Corpus Christi Authority, the City of Portland, and the Coastal Bend Bays and Estuaries Program (CBBEP). HDR Engineering, Inc. served as the engineer of record. Construction of the breakwater was provided by Apollo Environmental for \$1,498,232.00.



Left: Indian Point Pre-Construction. Right: Indian Point Post-Construction.

Eyes on the Horizon

Planning for the Future of the Texas Coast // JOSHUA OYER

The Coastal Planning Team supports the Coastal Resources Division's mission of prioritizing resiliency and restoration projects by providing comprehensive planning efforts. The Coastal Planning Team has two important ongoing planning endeavors: the Texas Coastal Resiliency Master Plan and the Coastal Texas Protection and Restoration Feasibility Study.

The Texas Coastal Resiliency Master Plan was last published in 2019 and will continue as an ongoing planning process. The Plan relies heavily on input from regional technical advisory committees that include representatives of state and federal agencies, local governments, universities, non-profits, engineering firms, port authorities, and other regional partnerships and foundations. The Plan recommends specific actions, strategies, and individual projects to alleviate issues ranging from immediate threats (e.g. hurricane storm surge and flooding) to gradual impacts (e.g. erosion, habitat loss, and water quality degradation). To learn more, visit www.glo.texas.gov/crmp where the "Master Plan Story Map" link has information on the background of the planning effort. All associated Plan documents, projects maps, and modeling data viewers are also available. The GLO will be holding a round of Public Open Houses in the future (to be announced), where the Coastal Planning team will share how the GLO has, and will continue, to work with local partners to increase the resiliency of the Texas coast. The Coastal Planning team will introduce the opening of a public survey at these Public Open Houses to gauge public opinion on coastal issues and proposed solutions.

The GLO is currently partnered with the U.S. Army Corps of Engineers to complete the Coastal Texas Protection and Restoration Feasibility Study, known widely as the Coastal Texas Study. The Study examines the feasibility and potential environmental impacts of large-scale storm risk management and ecosystem restoration projects. These projects are aimed at protecting coastal communities, businesses, industries, and critical habitats. The Study is underway and will ultimately make recommendations to Congress to fund projects such as a storm surge gate at Bolivar Roads, seawall improvements and a ring levee on Galveston Island, and beach nourishment and dune restoration along Bolivar Peninsula, Galveston Island, and South Padre Island. The Study also proposes several ecosystem restoration projects along the Texas coast. Stay up to date with the Coastal Texas Study by visiting coastalstudy.texas.gov



Seawalls and beach nourishment by the GLO help protect coastal communities from large wave events and restore critical beach habitat.



A CMP Success Story

Enhancing Critical Rookery Islands for the Protection and Preservation of Colonial Waterbirds

Colonial waterbirds are iconic to coastal ecosystems. For many, these birds symbolize bird and coastal conservation and waterbird birding drives ecotourism in coastal communities. However, colonial waterbirds, like many birds, are threatened by habitat degradation and loss, severe weather events, and human disturbance. Audubon Texas (ATX) has been working to protect colonial waterbirds on the Texas coast since 1923. Using CMP Cycle 22 funds, ATX conducted rookery island enhancement and protection activities, trained community members to survey rookery islands, monitored colonial waterbird populations during the breeding season, and created new outreach materials for young students. ATX trained volunteers to monitor birds and survey habitat and hosted coastal cleanup events where volunteers collected hundreds of pounds of plastic debris. In total, ATX engaged 2,286 volunteers in 4,825 hours of volunteer service. This project supported ATX's goals by enhancing community engagement and interest in colonial waterbirds to ensure these birds and coastal areas can continue to be appreciated in the future.

CMP Funding

Since 1997, CMP has awarded over \$43 million in grant funds for projects on the Texas coast. Check out the award funding by county.

COUNTY	FUNDING RECEIVED
Aransas	\$3,145,680
Brazoria	\$1,061,192
Calhoun	\$1,598,155
Cameron	\$4,179,272
Chambers	\$927,339
Galveston	\$6,555,819
Harris	\$3,725,117
Jefferson	\$945,997
Kennedy	\$99,966
Kleberg	\$859,882
Matagorda	\$1,240,307
Nueces	\$6,195,841
Orange	\$521,901
Refugio	\$361,979
San Patricio	\$730,400
Willacy	\$413,400
Coastwide	\$4,367,353
Lower Coast	\$4,314,298
Upper Coast	\$2,620,376



COASTAL MANAGEMENT PROGRAM CYCLE NO. 26 FUNDING NOW AVAILABLE

CMP is now accepting applications for up to \$1.8 million in grant funding for coastal projects. Incorporated cities and county governments within the coastal zone boundary, college and universities, subdivisions of the state, councils of governments and regional governments and nonprofit organizations are invited to apply.

CMP is looking for projects that fall under the following funding categories:

- Public Access Enhancement
- Data Collection
- Coastal Hazard and Resiliency Planning
- Coastal Resource Improvements or Enhancements, and
- Projects of Special Merit.

All projects are required to submit a pre-proposal application by 5:00 pm on June 10, 2020.

See glo.texas.gov/coast/grant-projects/funding/index.html for more information, or attend a CMP Workshop Webinar (dates listed below).



CONGRATULATIONS TO OUR CMP CYCLE NO. 25 CYCLE AWARD RECIPIENTS

Adolph Thomae Jr. Park Educational Pavilion: Cameron County

Assessing Coastal Change in Support of the 2023 Texas Coastal Resiliency Master Plan: Harte Research Institute, Texas A&M University, Corpus Christi

Assessment of Optimal Sea Turtle Nesting Sites Along the Texas Coast: Texas A&M University, Galveston

Bayou Riparian Corridor Restoration: Bayou Preservation Association, Inc.

Boggy Bayou Nature Park Improvements: Calhoun County

Clear Creek Connections Paddle Trail: City of League City

Cole Park Fishing Pier: City of Corpus Christi

Dollar Bay Wetland Creation: Galveston Bay Foundation, Inc.

Dune Management and Restoration on Mustang Island: Coastal Bend Bays & Estuaries Program

Integrated Assessment of Nutrient Loadings to Baffin Bay: Texas A&M University, Corpus Christi

Multifaceted Approach to Addressing Nonpoint Source Pollution in Galveston County: Galveston Bay Foundation

Oyster Shell Recycling Program: Galveston Bay Foundation

Quantifying Erosion and Pollution from Rainfall Runoff on Urbanized Beaches: Texas A&M Engineering Experiment Station/Texas A&M University

Redhead Pond: City of Corpus Christi

Removal of Derelict Queen Isabella Causeway - Creation of an Artificial Reef in SW Gulf of Mexico

San Benito Wetlands Project: Texas A&M AgriLife Extension Service

Shell Bank: Texas A&M University, Corpus Christi

Tern Rookery Island Protection and Restoration: Coastal Bend Bays & Estuaries Program

Texas Citizen Planner: Texas A&M AgriLife Extension Service

Texas Coastal Collaborative - A Dynamic Approach to Hazard Mitigation, Resiliency and NPS Control: Texas State University

Texas High School Coastal Monitoring Program: Bureau of Economic Geology, The University of Texas at Austin

Whitecap Circle Beach Access Development: City of South Padre Island

SHARON SAYS

When should I submit an invoice for reimbursement?

You should submit your invoices immediately. Don't wait until the end of the contract! Fill out the "Form for Reimbursement Request" (find it here: <https://www.glo.texas.gov/coast/coastal-management/forms/index.html>), make sure your Budget categories are not negative, and highlight or circle the expenditure amount on receipts/invoices.

Expert Tip

Even if you didn't spend any funds during the reporting period, you need to submit a zero dollar invoice for Federal and Match expenses.



UPCOMING EVENTS

Please be sure to double check the events online prior to attending to ensure they are still happening.

CMP Workshop Webinar A: May 5, 2020 (9:30 AM -12:00 PM)
<https://www.eventbrite.com/e/101572540202>

CMP Workshop Webinar B: May 7, 2020 (9:30 AM - 12:00 PM)
<https://www.eventbrite.com/e/101576784898>

CMP Workshop Webinar C: May 13, 2020 (9:30 AM - 12:00 PM)
<https://www.eventbrite.com/e/101578118888>

Gulf of Mexico Alliance (GOMA): All Hands Meeting
June 23-25, 2020: Biloxi, MS

The National Coastal and Estuarine Summit
October 4-8, 2020: Providence, RI

**American Shore and Beach Preservation Association
National Coastal Conference**
October 13-16, 2020: Long Beach, CA

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