



ROLLOVER PASS RECREATIONAL AMENITIES PLAN

DECEMBER 2011

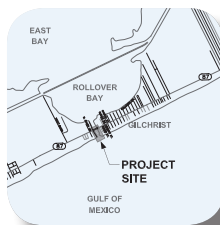
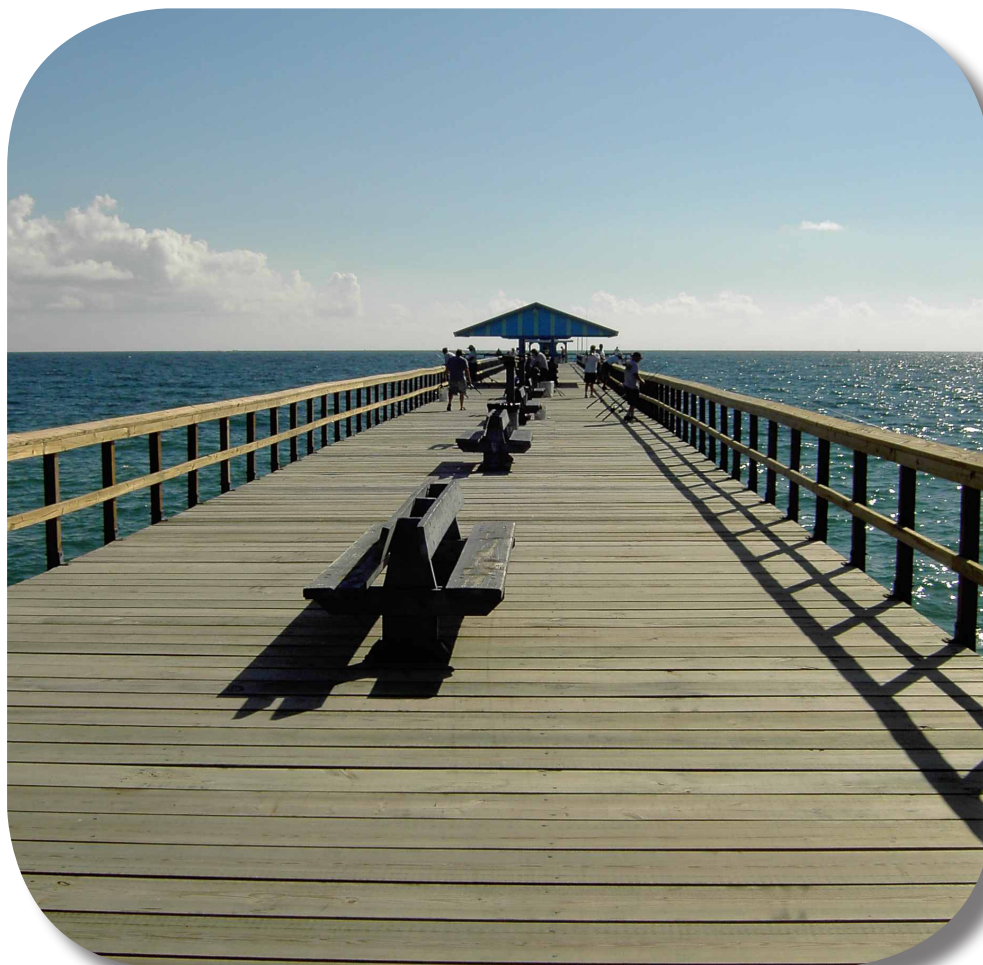




TABLE OF CONTENTS

Executive Summary	2
Rollover Pass Overview	2
Existing Recreational Activities.....	2
Damage from Hurricane Ike	3
Post-Closure Recreational Opportunities Considered.....	4
Proposed Recreational Amenities.....	6

FIGURE INDEX

Figure 1: Aerial Photo of Rollover Pass	2
Figure 2: Damage to State Highway 87 bridge over Rollover Pass due to Hurricane Ike	3
Figure 3: Unrepaired Hurricane Ike damage to Rollover Pass	4
Figure 4: Top of sheet pile at the northwest quadrant of Rollover Pass.....	4
Figure 5: Missing handrail at the southeast quadrant of Rollover Pass.....	4
Figure 6: Map illustrating potential project sites.....	5
Appendix A - Rollover Pass Recreational Amenities: Project Location Map.....	8
Appendix B - Rollover Pass Recreational Amenities: Gulf Side Concept Plan.....	9
Appendix C - Rollover Pass Recreational Amenities: Bay Side Concept Plan	10



EXECUTIVE SUMMARY

During the 2009 legislative session, the Texas State Legislature passed Senate Bill 2043 (SB 2043) which Governor Rick Perry signed on May 19, 2009. SB 2043 amended the Natural Resources Code to authorize the Commissioner of the Texas General Land Office (GLO) to undertake the modification or closure of a man-made pass between the Gulf of Mexico and an inland bay if he determined that the pass causes or contributes to significant erosion of the shoreline of the adjacent beach. One requirement of the bill was the development of a recreational plan if Rollover Pass was to be closed. As of December 2011, the United States Army Corps of Engineers (USACE) Galveston District, the lead permitting agency for this project, is finishing its approval of the closure permit application. An engineering firm contracted to the GLO has developed the Rollover Pass closure design plans. The GLO has contracted with another engineering firm to design the Rollover recreational area. This Rollover Pass Recreational Amenities Plan evaluates the existing recreational opportunities provided, identifies potential options and proposes a locally preferred option.

ROLLOVER PASS OVERVIEW

Rollover Pass is located on a natural coastal washover feature on the Bolivar Peninsula in Galveston County, northeast of Galveston Island (at 29°00' N, 94°30' W). Rollover Pass is 200 feet wide, five feet deep (with areas up to 25 feet deep due to erosion), and more than 1,600 feet long across the peninsula. Rollover Pass is a man-made channel constructed by the Texas Game and Fishing Commission (now the Texas Parks and Wildlife Department) in 1955 under an agreement with the land owner, the Gulf Coast Rod, Reel and Gun Club, to provide fishing opportunities to residents and to promote tourism on the Bolivar Peninsula.



Figure 1: Aerial Photo of Rollover Pass

COMMUNITY STAKEHOLDERS

Galveston County

PenDeCo

Gulf Coast Rod, Reel and Gun Club

Gilchrist Community Association

Surfrider Foundation

Rollover Pass provides a tidal connection between the Gulf of Mexico and Rollover Bay. The land surrounding Rollover Pass is owned by the Gulf Coast Rod, Reel and Gun Club and leased to the Gilchrist Community Association (GCA).

Over the years, Rollover Pass has become a favorite recreational spot for both locals and tourists, and many families consider traveling to Rollover Pass a family tradition. Rollover Pass has significant sentimental value to many people in the community.

Numerous technical studies have been commissioned that show Rollover Pass contributes to beach erosion on the peninsula and increases shoaling of the Gulf Intracoastal Waterway (GIWW) in the area adjacent to Rollover Pass.

EXISTING RECREATIONAL ACTIVITIES

FISHING

The primary recreational opportunities provided by Rollover Pass are from its unique fishing aspects. Rollover Pass offers several different fishing opportunities, including bank fishing along approximately 3,200 feet of the hardened bank, surf fishing near the mouth of the Pass on the Gulf of Mexico side, and wade and kayak fishing in the bay areas. Access to these fishing areas is enhanced by the availability of unimproved parking directly adjacent to the Pass. The close proximity of the parking offers a fishing opportunity for the disabled and mobility-impaired public.

Rollover Pass is unique in that both bay and Gulf fish species can be found at this site. Fishermen have the ability to cast directly from the bank and catch fish that would ordinarily be several hundred feet off



shore. In addition, the tides pull fish into the Pass, and many fish use the Pass as a connection to East Bay. As an example, during spawning season, flounder use Rollover Pass to access East Bay, thereby concentrating migrating fish in a localized area.

Many species of fish can be caught at Rollover Pass, including southern flounder, speckled trout, redfish, croaker, sand trout, salt water catfish, and spanish mackerel. Although fishing occurs year round, fishing activity at Rollover Pass peaks in the months of October and November during the annual flounder migration. Rollover Pass is currently the site of several fishing tournaments, including the Annual Flounder Tournament held at the peak of the flounder run.

SURFING

The surfing that existed prior to the loss of Meacom's Pier, which was damaged by Hurricane Ike, was a key part of the local culture on Bolivar Peninsula. It garnered national attention from surfing enthusiasts all over the state.

BIRDING

Rollover Pass is a popular birding location as the adjacent mud flats provide habitat for migrating shorebirds, including the piping plover, a species listed as threatened and endangered by the Endangered Species Act. Rollover Pass is one of the identified birding locations on the Bolivar Loop of the Texas Parks and Wildlife Department's (TPWD) Upper Texas Coast Wildlife Trail.

COMMUNITY GATHERING AREA

Rollover Pass is centered on Bolivar Peninsula and serves as a gathering place for many of the local communities. Although no designated area is set aside for these types of events, it is locally recognized that Rollover Pass serves this function.

CAMPING

Some people who come to fish at Rollover Pass use the adjacent beaches as a camping area. It is not uncommon at peak fishing times for many tents to be set up along the beaches near the Pass. Several Recreational Vehicle (RV) parks were located adjacent to Rollover Pass until they were destroyed by Hurricane Ike in September 2008. Currently there is no designated RV parking, but many recreational

vehicles use the lot to the northeast as a camping area on a regular basis. There are no RV utility hook ups provided for the area.

PARKING

The adjacent land to the west and east of Rollover Pass is gravel and is typically used as a parking lot for people fishing at the Pass and for parking RVs. Parking space is typically at a premium during peak times, which causes spillover onto the shoulders of Highway 87. The parking areas are not delineated, and therefore the parking capacity is not currently maximized.

AMENITIES AVAILABLE BEFORE HURRICANE IKE

Before Hurricane Ike, two bait stores were adjacent to the Pass. Both stores were completely destroyed by the storm and have not been rebuilt. These stores were a source of income for the owners and a source of tax revenue for the county and state.

DAMAGE FROM HURRICANE IKE

Hurricane Ike made landfall on the Bolivar Peninsula in September 2008, causing significant damage. Based on the Saffir-Simpson Hurricane Scale, Hurricane Ike was a Category 2 hurricane with respect to wind speed and a Category 4 storm with respect to hurricane storm surge. Rollover Pass was in the direct path of the storm and sustained significant damage.



Figure 2: Damage to State Highway 87 bridge over Rollover Pass due to Hurricane Ike. Photo taken in September 2008.



STATE HIGHWAY 87 BRIDGE OVER ROLLOVER PASS

The bridge that spans Rollover Pass sustained significant damage and was reduced to one lane for several months after the storm. The damage required the Texas Department of Transportation (TxDOT) to execute a \$650,000 emergency repair contract for the bridge. These repairs opened the bridge for two way traffic, but did not restore the bridge to the pre-storm width of three lanes.

While feasible to remove the bridge as part of the closure project, removal of the bridge is not currently planned.

BULKHEADS OF ROLLOVER PASS

The Rollover Pass bulkheads are constructed of steel sheet piles with a concrete cap that serves as a walking surface for the public. The bulkheads sustained significant and currently unrepaired damage as a result



Figure 3: Unrepaired Hurricane Ike damage to Rollover Pass. Photo taken in February 2011.

of Hurricane Ike. Concrete slabs provided a wide sidewalk adjacent to the bulkheads. In many places, these concrete slabs are dislodged or have subsided. The current sidewalks are significantly damaged with many tripping and falling hazards.

Due to wave attack associated with Hurricane Ike and years of disrepair, the handrail system on top of the bulkheads sustained significant damage and in many places provides no protection for pedestrians from falling into the Pass.

Additionally, the areas north of Highway 87 were not constructed with a concrete cap, and corrosion to the steel sheet piles has left a jagged top with potential safety hazards.

Although less visible, Rollover Pass has experienced significant erosion near the sheet piles lining the Pass. This damage, if unrepaired, could lead to localized failures, thereby putting the general public in danger.



Figure 4: Top of sheet pile at the northeast quadrant of Rollover Pass. Photo taken in February 2011.

ACCESSIBILITY AND SAFETY CONCERNS

Rollover Pass does not meet Texas Accessibility Standards (TAS) and Accessibility Guidelines (ADAAG). Coupled with the damage caused by Hurricane Ike, this has created an unaccommodating recreational environment for wheelchair access and for people with disabilities. As shown in the picture below, the entire handrail is missing from the southeast bulkhead. Without this railing in place, the public is exposed to an increased risk of falling.



Figure 5: Missing handrail at the southeast quadrant of Rollover Pass. Photo taken February 2011.

POST-CLOSURE RECREATIONAL OPPORTUNITIES CONSIDERED

Input was sought from the TPWD, Galveston County, the fishing community, and local Bolivar Peninsula residents for preferred recreational alternatives to the existing Rollover Pass. Two recreational alternatives were identified, including Gulf-side and Rollover Bay fishing piers. The Gulf fishing pier was the preferred option.



FISHING

Gulf of Mexico

Refer to Appendix B - Rollover Pass Recreational Amenities: Gulf Side Concept Plan.

Although Rollover Pass provides a unique opportunity to the fishing community, there are ways to provide a similar experience if the Pass is closed. One of the locally preferred ways to mitigate this loss would be to construct a Gulf side pier. Piers in similar areas have been shown to significantly increase the fishing opportunity by allowing the fishermen access to deeper waters. A number of considerations factor into the design of a fishing pier. Factors like pier length and location are often closely tied to construction materials. Other considerations could include constructing an artificial reef both to increase the fish population and to enhance wave activity for surfers.

A number of locations including the west and east sides of the Pass were explored for a Gulf side pier. One of the Hazard Mitigation Grant Program (HMGP) buyout properties at the south end of Yacht Basin Road was also investigated.

Other design considerations were the length and alignment of the pier. Pier length and subsequent pier height can affect which species of fish are available to fishermen. Some of the configurations considered were tangent or angled and T-headed or L-shaped.

Rollover Bay

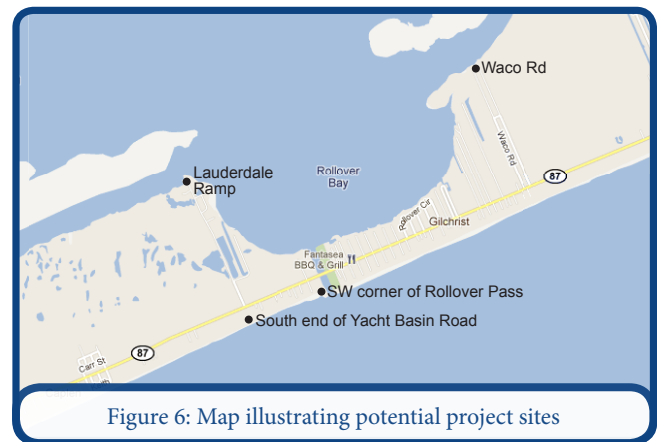
Refer to Appendix C - Rollover Pass Recreational Amenities: Bay Side Concept Plan.

Some species of fish caught at Rollover Pass are not as likely to occur in the Gulf of Mexico, and therefore an option could also include a Rollover Bay fishing opportunity. Several options have been explored to mitigate fishing opportunity on the bay side. Two possibilities follow:

The Lauderdale Boat Ramp is owned by the TPWD and located at the north end of Yacht Basin Road. Yacht Basin Road intersects State Highway 87 approximately .5 miles west of Rollover Pass. This boat ramp has limited usability in its existing condition due to rapid siltation in the GIWW. It also has limited

parking areas surrounding the ramp. During the research phase, the GLO investigated rehabilitation of the boat ramp with expanded parking and the installation of a pier that would run northwest from the end of the Yacht Basin Road, paralleling the GIWW. One variant of this concept is the construction of a rock groin with a paved top that would extend northeast into Rollover Bay. The existence of wetlands in close proximity to Yacht Basin Road and the boat ramp might significantly limit the ability to expand the road and parking areas.

The GLO also considered the construction of a new pier at the end of Waco Road that would extend southeast into Rollover Bay, paralleling the GIWW. Waco Road intersects Highway 87 approximately one mile east of Rollover Pass. This location is approximately one mile from State Highway 87 and would require significant improvements to the road. This area is also in close proximity to wetlands.



CAMPING

Because Rollover Pass currently is used for camping, it is anticipated that any new site will be used in a similar method. The area surrounding Rollover Pass is expected to be open land that could continue to be used for camping after closure of the Pass.

PARKING

Parking capacity is not maximized in the current area, and a revised parking plan would create more efficient use of the area and reduce the hazardous practice of parking on the shoulders of Highway 87.



REVENUE SOURCE FOR LOCAL BUSINESSES

Due to extensive damage from Hurricane Ike, both Meacom's Pier and Dirty Pelican Pier were removed. These piers attracted fishermen and surfers to Bolivar Peninsula. Many of the stores, RV parks and rental properties in the area were destroyed and have yet to be rebuilt. A recreational fishing opportunity could return vacationers to the area, introducing a source of income for local business owners and spurring job growth.

SAFETY CONCERNS

All new recreational options must have wheelchair accessibility and be constructed in accordance with the TAS/ADAAG.

PROPOSED RECREATIONAL AMENITIES

The proposed recreational amenities plan is conceptual. Final design will be dependent upon the availability of project funding.

GULF SIDE AMENITIES

Refer to Appendix B - Rollover Pass Recreational Amenities: Gulf Side Concept Plan.

Community Support

This proposed recreational amenities plan is being developed in coordination with key stakeholders and is viewed by the GLO as the preferred amenity.

PenDeCo is a local community organization on the Bolivar Peninsula that was developed after Hurricane Ike to assist in guiding the recovery of the peninsula. PenDeCo, in coordination with other area stakeholders, has developed the Bolivar BluePrint to act as a master planning document for the peninsula. The GLO has included elements of that document into this recreational proposal. Input in regard to this plan has also been received from various community leaders and members of the surfing community along the upper Texas coast.

Fishing

In this proposal, a 1000 foot-long T-head pier would extend into the Gulf of Mexico. The pier would land on the west side of the existing Rollover Pass to avoid any settlement that may occur in the fill area over Rollover

Pass. This new fishing pier would provide 2000 linear feet of fishing area. The pier would be constructed using concrete piling, concrete beams and timber decking. Elements of the Bolivar BluePrint Boardwalk design have been incorporated so that as the peninsula redevelops, a continuous theme is seen throughout. Lighting could be provided both at an on-deck level as well as below the deck. Below deck lights would serve to attract many fish species. The final lighting plan would be subject to United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) approval.

The pier would terminate in approximately 10 feet of water. A pier of this configuration would provide fishing access to the following species: redfish, flounder, speckled trout, croaker, sand trout, shark, and sheepshead.

These proposed amenities would provide land-based fish cleaning stations to complement the pier. This is something that is not currently provided at Rollover Pass.

Surfing

The proposed pier would angle to the southeast similar to the now removed Meacom's Pier. This configuration is appealing to the surfing community since the pier will act as a wave break on windy days.

Parking

Parking to accommodate approximately 80 parking spots would be provided in a lot to the east of the pier. Handicap parking spots would also be provided along the reconstructed road adjacent to the main pier parking area to the west.

Bait Store/Food Stand

The proposed recreational plan incorporates a bait store/food stand on the pier landing area. This store could be used in many ways by the community or leased to a private entity as a way to mitigate pier maintenance expenses.

Restrooms

To support these amenities, restrooms, which are not currently provided at Rollover Pass, have been incorporated into the plan.



Security

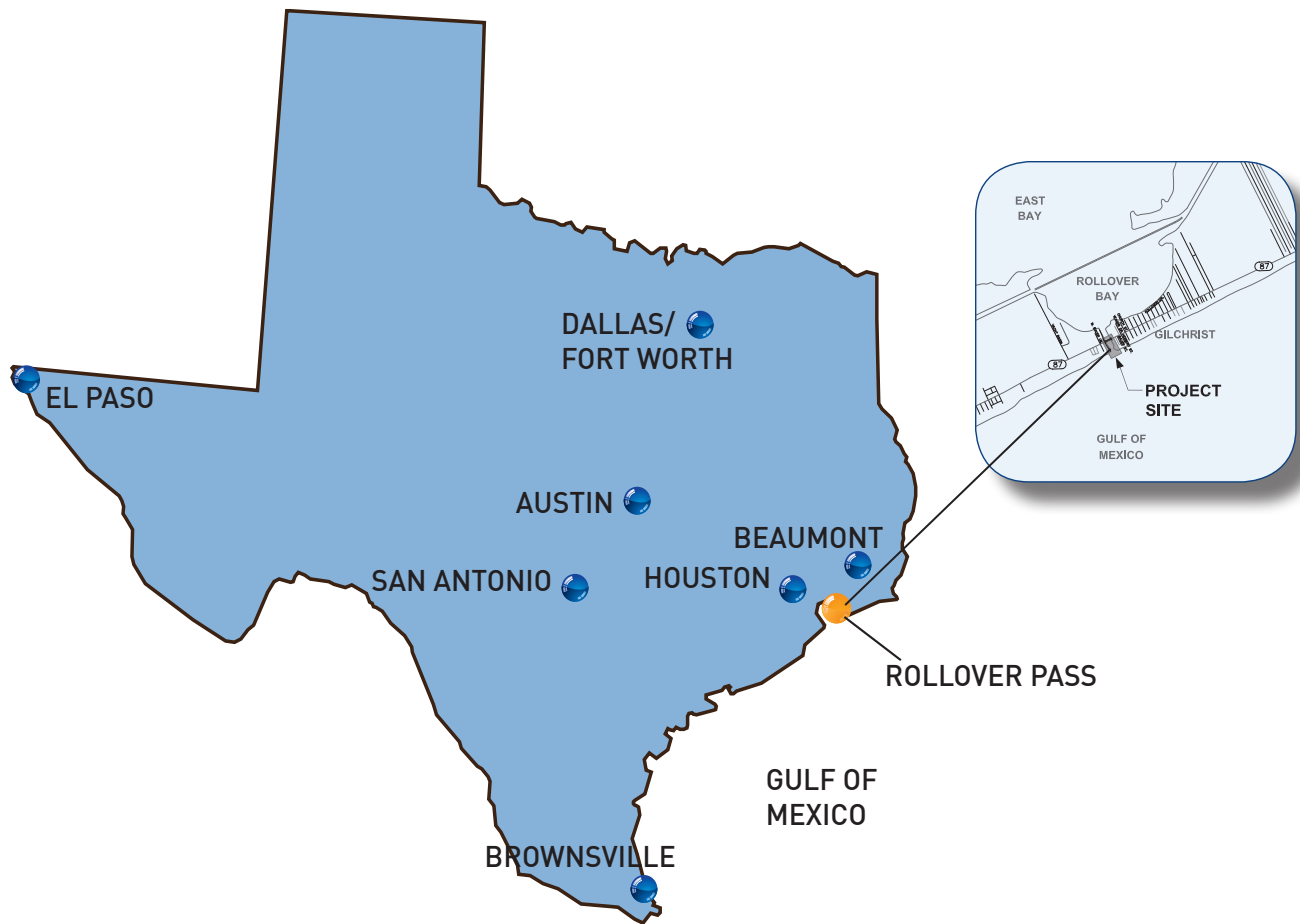
The new pier would include a controlled access point at the entrance of the pier area near State Highway 87 at the northwest corner of the parking area. This controlled access point would aid in managing the inflow of visitors to the pier.

Safety

The proposed site design would be based on the current TAS/ADAAG. The site would be designed to provide wheelchair access throughout the site. Reduced height railings would be included in the design for persons using wheelchairs or other mobility devices.



APPENDIX A — ROLLOVER PASS RECREATIONAL AMENITIES PROJECT LOCATION MAP





APPENDIX B — ROLLOVER PASS RECREATIONAL AMENITIES GULF SIDE CONCEPT PLAN



Project Summary

The proposed project includes construction of a T-head pier and associated recreational amenities. The proposed pier would be 1,000 feet long by 20 feet wide and would extend from the west side of the existing Rollover Pass into the Gulf of Mexico. Other proposed recreational amenities to be provided include land-based fish cleaning stations, bait shop, a parking lot and picnic areas.

Rollover Pass Recreational Amenities Gulf Side Concept Plan

Note: Proposed recreation alternative is dependent on the GLO securing funding for the project.

December 2011





APPENDIX C — ROLLOVER PASS RECREATIONAL AMENITIES BAY SIDE CONCEPT PLAN



Rollover Pass Recreational Amenities Bay Side Concept Plan

Note: Proposed recreation alternative is dependent on the GLO securing funding for the project.

December 2011

