

# City of Port Lavaca Shoreline Revitalization and Environmental Enhancement Strategy

### Introduction.

The area along the waterfront of the City of Port Lavaca (CPL) primarily consists of parks, beaches, marinas, marshes and wetlands. Much of the area is underutilized and in need of improvements. Past economic policies have impacted Port Lavaca's environmental and infrastructure conditions. Over time, the need for restoration of the landscape has become apparent. CPL is pursuing revitalization of the environmental conditions in the bay to create a resilient and prosperous economy focused on the shoreline. These efforts will emphasize restoring ecological conditions and modernization/revitalization of the shoreline infrastructure. This strategy is supported by the community input obtained throughout the planning process.

The Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coastal States Act of 2002 (RESTORE Act) funding is available to communities along the Gulf Coast shorelines for a variety of revitalization approaches connected to estuary water quality improvements, ecological restoration and economic improvements in balance with the natural environment. This source is one of the best alternatives to fund the community's shoreline needs. If CPL is selected to receive these grants, it will be a major opportunity to complete a series of phased projects. The proposed projects include:

- 1. Shoreline clean up and debris removal
- 2. Harbor channel, beneficial use of dredge material and habitat restoration
- 3. Develop educational and eco-tourism programs on the City shorelines
- 4. Shoreline habitat creation (through marshes, oyster reefs, and living shorelines)

The positive impacts of these projects would be seen community-wide, through improved quality of life, increased property values, increased tax revenue to CPL, increased tourism to support local retail and restaurants, and establishing new employment opportunities, among many others. These initiatives can only be achieved with financial support from programs such as the RESTORE Act, Texas General Land Office (GLO) coastal programs, Texas Parks and\_Wildlife Department (TPWD)\_National Ocean and Atmospheric Administration (NOAA)\_habitat programs, US Army Corps of Engineers (USACE) beneficial use of dredging material, and other funding from non-governmental organizations and local industries. The mentioned

four projects couple well with already funded RESTORE projects in the region including: the Powder Horn Ranch Acquisition managed by TPWD and other partners and the Matagorda Bay System Landscape Conservation also managed by TPWD. These are projects already funded and in the process of developing their planning processes.

Also, the CPL mentioned projects build upon these major proposed projects as well as those established by the CPL Waterfront Implementation Plan. These recommended projects seek to organize a balance between park improvements, quality of life amenities, local economic development, wetland preservation, water front culture and education, sense of connection to coastal resources, ecological awareness, and economic sustainability.

The CPL developed a Comprehensive Plan, which is identifying the policies and actions to be implemented for the future development of the City. Under a set of public meetings and inputs, about 68% of the residents participating in a survey about the future plan suggested that the city should restore the shorelines and use them as an asset for future development. This is where the RESTORE Act will play a big role in the revitalization of the city shorelines and the economic future of the region. Under this strategy of RESTORE Act projects, the funding opportunities will be used also as match for other grants, which will help to leverage resources for other grants in the areas of: education, resiliency, environmental improvements, recreation, better management practices, and community development.

# **CPL** Actions.

In coordination with the City of Port Lavaca (CPL), Freese and Nichols, Inc. (FNI) developed a strategy to get public consensus on the priorities for environmental enhancement along the shorelines of CPL on Lavaca Bay. The strategy consisted of a group of public inputs through a CPL Shoreline Task Force (TF). Members of the TF include:

City of Port Lavaca Mayor, Jack Whitlow

City of Port Lavaca Councilman, Jim Ward

City of Port Lavaca Councilman, Tim Dent

Calhoun County Commissioner, Neil Fritsch

Calhoun Port Authority, Port Director, Charles Hausmann

City of Port Lavaca Public Works Director, Darren Gurley

San Antonio Bay Foundation, President, Don Alonso

Port Lavaca Chamber of Commerce, Executive Director, Chris Hines

San Antonio Bay Partnership Board Chair, Allan Berger

Formosa Plastics, Director of Communications, Bill Harvey

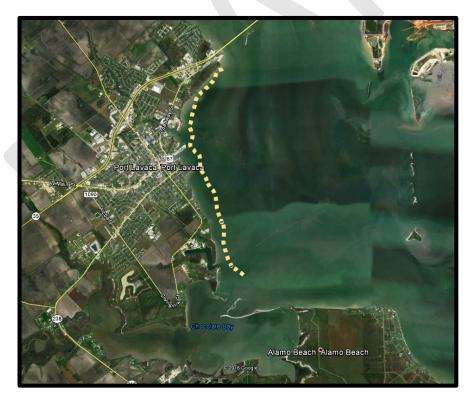
Natural Resource Conservation Service, District Conservationist, Madeleine Cantu

Sea Grant Extension Agent, Rhonda Cummins

Senator Lois Kolkhorst, Staff, Ross Giesinger Lakeside RV Resort, Owner, Doug Jensen REMAX Realty, Dallas Franklin REMAX Realty, Suzan Davis Russell Cain Real Estate, Owner, Russell Cain Russell Cain Real Estate, Administrator, Lisa Peterson Through a series of meetings and direct communication coordinated by The CPL Economic Development Director, Chad Odom the consensus of the participants on the TF was that the shorelines need several projects to improve the present conditions on the city shorelines and the ecosystems within Lavaca Bay. Historically, the city shorelines have been negatively impacted by lack of environmental policy and point-source pollution affecting the overall economic health of the city shorelines.

Mr. Odom took the leadership for the collection of data and public inputs to obtain consensus on the best opportunities to develop a strategy to complete the revitalization and environmental enhancement of the shoreline infrastructure and the ecosystems on the bay. RESTORE Act funding was considered to be one of the best alternatives to fund some of the discussed needs. This funding opportunity will be used as a priority to generate a funding mechanism to complete a series of phased projects, which began more than a decade ago.

The conclusion from the TF meetings is that RESTORE Act will support some of these initiatives in parallel with the use of other funding opportunities to be identified such as: GLO coastal programs, TPWD and NOAA habitat programs, USACE beneficial use of dredge material, funding from Non Profit Organizations (NGO's), local industries and business, etc. This initiative will cover the city shorelines from the recreational areas south of SH-35 to the Harbor of Refuge and Chocolate Bay.



Area of Interest.

# City of Port Lavaca Shoreline Clean up and Debris Removal

## **Proposed Project 1.**

City of Port Lavaca Shoreline Clean up and Debris Removal

## Goal

Identify, quantify, and remove the submerged and on land debris located along the city shorelines, which includes, sunken boats and barges, metals, industrial materials, etc.

# Background

Historically, debris consisting of old sunken barges, sunken boats, maritime equipment, broken pipelines, navigation markers, industrial equipment, etc. were left abandoned on the shorelines and the waters of the city. These materials are the remains of past industrial and maritime activities, which developed on the shorelines of Port Lavaca. Previous efforts to clean debris have helped but more needs to be done since the presence of these submerged structures have limited the use of the shorelines and access to the local marina and boat ramp. They have also limited recreational and educational activities on the city shorelines. Also, the potential presence of fuels in the barges and tanks and the decomposition of metals and paints are a threat to natural habitats, water quality, bay ecosystems and the health of the inhabitants and visitors of Port Lavaca. Removing the debris will generate different benefits to the environment, the local economy and opportunities to revitalize the downtown area as economic asset and will create coastal ecotourism opportunities and educational benefits to the local and regional school districts. Removing this debris will allow for future restoration opportunities to bring marshes, oyster banks and fish reefs that will improve the ecological conditions of the area.

A geophysical survey will be conducted to develop an inventory of critical debris and the necessary permits will be obtained from GLO, Coast Guard and USACE. The projects will be bid following the state procurement process.

# Economic Benefits (25 Points)

The project will improve the perception of a safe shoreline, bringing: new investments for green infrastructure, ecotourism, bird watching, new educational facilities and programs, sustainable and resilient jobs connected to commerce, recreation and the service industry.

# Environmental Benefits (25 Points)

The project will improve water quality problems, reduce navigation accidents, conserve and protect habitats, prepare conditions for restoration, enhance threatened resources, replenish living coastal resources, and reestablish fish and bird habitat.

# **Comprehensive Factors (25 Points)**

The project will complement local and regional environmental enhancement projects, promote resiliency of the City of Port Lavaca communities, reduce future accidents, and support state and federal plans on water quality and ecological protection and restoration.

### Project Logistics (20 Points)

Project is ready to start. City has worked with the GLO before and used the best practices but funding is limited. City and partners are committed to long-term management, monitoring of wildlife and water quality, best science on habitats and water quality.

#### **Community Engagement (20 Points)**

Project is highly supported by the local and regional communities, state and federal stakeholders, has indirect financial partnerships, and may attract local funding for the maintenance of specific water infrastructure.

#### Sponsor (20 Points)

City of Port Lavaca, Port Lavaca Chamber of Commerce, Calhoun County, Port of Calhoun, Realtors Associations, San Antonio Bay Foundation, and San Antonio Bay Partnership.

#### Estimated Cost: \$500,000 to \$800,000.

# City of Port Lavaca Harbor Channel, Beneficial Use of Dredge Material and Habitat Restoration

### **Proposed Project 2.**

City of Port Lavaca Harbor Channel, Beneficial Use of Dredge Material and Habitat Restoration

### Goal

Remove the sediment shoaling the harbor channel and restore some habitats in the area with the sediments.

# Background

The Matagorda Ship Channel (MSC) navigation system includes several small channels that are part of the main navigation system, including the Port Lavaca Channel (PLC) and its secondary channels. PLC and the Harbor of Refuge Channel (HRC) are located within the boundaries of the City of Port Lavaca. USACE and the Calhoun Port Authority (CPA) manage the maintenance dredging of the MSC but funding has been limited in previous dredging cycles to include PLC and HRC and other small channels. Since PLC and HRC are shoaled due to the lack of dredging and have limited capacity to support new maritime activities, local industries have abandoned the use of the harbor facilities and jobs have disappeared leaving the city in an economic hole. This grant application will allow dredging of these channels under a beneficial use of dredge material option (BUDM). USACE Corpus Christi Regional Office has expressed interest in considering the BUDM option to the management of the CPL navigation channels including the CPA since it will reduce the cost of maintenance and will develop BUDM opportunities needed in the area. Also, several private entities are committed to return and redevelop the harbors if the channels get re-opened.

The plan is to beneficially use the sediments available on the channels and reestablish some marshes and critical aquatic habitats affected by the impacts of past environmental accidents, inadequate economic policies and activities. The City of Port Lavaca and its partners are committed to restoring the environment for generations to come and improve the quality of life of the local residents and visitors.

The re-opening of the PLC and HRC will have a tremendous economic impacts to the region and specifically to the city since it is expected that the new harbor activities will be connected to green infrastructure and new maritime services and not just to oil related activities. Also, this will allow visitors to experience more of the recreational waters, providing support for ecotourism services and businesses. The project has several partners in support of the initiative including state and federal stakeholders, NGOs, local and regional economic related entities and the local school districts.

A geotechnical and environmental inventory of habitats will be conducted and an environmental coordination team will be created with state and federal stakeholders for the regulatory concerns and permit procedures. A feasibility study will be conducted parallel to the regulatory compliance. Once the restoration alternatives have been identified and approved, the project is

expected to be in construction within two years. Some beneficial use of dredge material opportunities may be identified early in the process. The opportunities may identify specific permitting opportunities to allow for the use of sediment and the completion of some of the specific projects recommended by the stakeholders.

# Economic Benefits (25 Points)

The reopening of PLC and HRC will allow for more BUDM projects for infrastructure, reactivate the harbor and business investments for sustainable jobs, support educational efforts and ecotourism, and diversify investments on available spaces on the shorelines.

# **Environmental Benefits** (25 Points)

This project will improve bay circulation, generate enough sediments to restore several marsh and fish habitat areas (20 to 30 acres), restore lost habitats, improve water quality, cap some bay contaminated areas and expand new BUDM opportunities.

# **Comprehensive Factors (25 Points)**

This project will complement and support several partnerships, develop projects on available plans, promote regional community and ecologic resiliency, restore a historical site, and bring economic, educational and ecotourism opportunities.

# Project Logistics (20 Points)

The project has support from stakeholders, county, city and the port and commitments are in place for long-term operations and maintenance, allowing for the best use of science, adding education opportunities on the habitats created.

# **Community Engagement (20 Points)**

Highly supported by the community, local government and quasi government agencies, as well as private organizations including chambers of commerce and fishing industry. Supported by maritime industries as a sustainable job generator bringing serious private investors and potential funding match.

# Sponsor (20 Points)

City of Port Lavaca, Port Lavaca Chamber of Commerce, Calhoun County, Port of Calhoun, Realtors Associations, San Antonio Bay Foundation, and San Antonio Bay Partnership, several private investors, local industry, maritime businesses, restaurant and retailers, school districts, and NGO's.

# Estimated Cost: \$2,500,000 to \$3,000,000.

# **Shoreline Habitat Creation**

# (Through Marshes, Fish Habitat, Oyster Reefs and Living Shorelines)

### **Proposed Project 3.**

Shoreline Habitat Creation (Through Marshes, Fish Habitat, Oyster Reefs and Living Shorelines)

### Goal

Create new bay shoreline habitat areas affected by past economic activities to improve the natural environment and ecosystem and scenery using dedicated dredging from submerged placement areas and other sediment sources.

### Background

The City of Port Lavaca (CPL) is working on beneficial use of dredge material (BUDM) opportunities coming from their closed navigations channels to restore and create marshes, fish habitat and conditions for living shorelines and oyster reefs as part of several comprehensive plans already in place. The creation of coastal habitats will improve the bay conditions, will improve water quality and will serve as a sustainable incentive for the re-vitalization of the shorelines in downtown Port Lavaca. Sediments adjacent to the navigation channels may not be enough for the size of the projects required to enhance the city shorelines creating resilient projects and not just cosmetic projects. Bay sediments from other sources will have to be considered for the magnitude of the habitat restoration needs.

A sediment source investigation will be conducted to identify the best viable and ecologically practical sediment source in relation to the needs of the restoration. Parallel to this investigation, specific assessments of other sediment sources coming from adjacent submerged dredge material placement areas (PAs) located on the sides of the navigation channels will be conducted. This will be in coordination with USACE and the Port of Calhoun. Sediments from these PAs can be also used for the creation of habitat restoration projects that will enhance the natural conditions of the city shorelines and submerged areas. The marsh habitats will serve also as natural protection systems for the shoreline infrastructure during future storms. By using the sediments in these submerged PAs, the mentioned restoration opportunities will add future capacity to the PAs to accommodate new materials coming from future dredging projects. This is an additional benefit to the planning of future dredging and local sediment placement events.

The re-use of PAs is a priority for both USACE and the local sponsors since it adds capacity to the PAs and improves the management of future dredge material under a more confined and controlled way in bay bottom environments.

# Economic Benefits (25 Points)

The use of bay and PAs sediments will allow for more BUDM projects for infrastructure, reduce the cost of sediment management, will re-activate business investments to provide sustainable jobs, support educational efforts, ecotourism, and diversifying investments in available spaces along the shorelines.

# Environmental Benefits (25 Points)

This project will improve bay circulation, generate enough sediments to restore several marsh and fish habitat areas (20 to 30 acres), restore lost habitats, improve water quality, cap some bay contaminated areas and expand new BUDM opportunities.

# **Comprehensive Factors (25 Points)**

This project will complement and support several partnerships, develop projects on available plans, promote regional community and ecologic resiliency, restore a historical site, and bring economic, educational and ecotourism opportunities.

# Project Logistics (20 Points)

The project will have stakeholders support from the county, city, and port and has been mentioned as a regional need in different plans. Commitments are in place for long-term operations and maintenance allowing for best science and education, and lower future disposal costs.

# **Community Engagement (20 Points)**

Highly supported by the community, local private organizations including chambers of commerce and fishing industry. Supported by maritime industries as a sustainable job generator bringing serious private investors and potential match.

# Sponsor (20 Points)

City of Port Lavaca, Port Lavaca Chamber of Commerce, Calhoun County, Port of Calhoun, Realtors Associations, San Antonio Bay Foundation, and San Antonio Bay Partnership, several private investors, local industry, maritime businesses, restaurant and retailers, school districts, and NGO's.

#### Estimated Cost: \$2,000,000 to \$2,500,000.

# Develop Educational and Eco-tourism Program Connected to the Revitalization of the City Shorelines and Ecological and Environmental Enhancement on the Bay.

#### **Proposed Project 4.**

Develop educational and eco-tourism programs connected to the revitalization of the city shorelines and ecological and environmental enhancement on the bay.

#### Goal

Create coastal ecological educational opportunities for the local residents and visitors; ecotourism facilities; a field class type learning environment; and the creation of sustainable green jobs. These opportunities will start with the creation of a boardwalk and trails to parallel to the shoreline that will expose the local residents and visitors to be in contact with the healthy habitats already in place. As restoration opportunities get completed and the shorelines gets revitalized, the boardwalk system will be expanded on city properties to create a formal venue for long-term educational and eco-tourism programs.

#### Background

The City of Port Lavaca (CPL) is expected to restore the natural ecological and environmental conditions in the bay and the shorelines. The city has already purchased a key piece of property to begin the process of revitalizing the shorelines. This land will accommodate areas for education, recreation and access to the bay. It is expected that the present conditions will change after the habitat restoration projects have been completed and visitors can enjoy the new bay landscape and city environment created by these economic and infrastructure improvements.

The goal to create ecological educational opportunities for the local residents and visitors and eco-tourism facilities for sustainable green jobs will be phased since some important habitats and infrastructure is already in place. Funds for the first phase will be the creation of materials and ecological signs for the local residents, students, and visitors to start enjoying the shoreline landscape.

A series of boardwalks will be built with the existing ecological conditions and infrastructure. The boardwalk system will include signs showing the ecological value of the bay environment and the history of the CPL as a key player in the bay culture in Texas. The boardwalk system will be expanded as the city improves conditions on the shorelines and the bay habitats. Fishing and birding opportunities will be complimented by paddling trail infrastructure as part of the recreational plan. This will consist of a phased program as funding becomes available. 68% of the residents interviewed by a city survey on the future of the city economic development responded that selected tourism should be attached to the water front as the Port Lavaca's greatest asset.

This project will benefit the perception of CPL as an eco-tourism resource, increase visitation and education opportunities, attract sustainable jobs and green infrastructure, and promote local and regional economic resiliency and diversification.

### **Environmental Benefits** (25 Points)

This project will create matching funds for educational programs, enhance the public interest in bay issues, educate people on habitat and threatened resources, and create awareness on water quality and environmental risks.

#### **Comprehensive Factors (25 Points)**

This project will promote community and ecological resiliency, support environmental monitoring programs and ecotourism, supports previous federal, state and local plans focus on habitats, historic and environmental issues.

#### Project Logistics (20 Points)

Project will be ready for implementation at any time, bring a multidisciplinary and sustainable approach through several public and private partnerships. Previous similar efforts were successful in the past.

**Community Engagement (20 Points)** Highly supported by the community, state and federal agencies, NGO's, the industry and several partners such as school districts, sport groups, and the shrimp and maritime industry. Connect with new City Comprehensive Plan. Et al.

#### Sponsor (20 Points)

City of Port Lavaca, Port Lavaca Chamber of Commerce, Calhoun County, Port of Calhoun, Realtors Associations, San Antonio Bay Foundation, and San Antonio Bay Partnership, several private investors, local industry, maritime businesses, restaurant and retailers, school districts, and NGO's.

#### Estimated Cost: \$1,500,000 to \$2,000,000.

# CITY OF PORT LAVACA DEPARTMENT OF ECONOMIC DEVELOPMENT

Shoreline Revitalization and Environmental Enhancement Strategy TASK FORCE

Agenda 12/16/15

Agenda:

- Introduction of the Task Force Concept
- Statement of Goals
- Task Force Introductions
- Asset Inventory
- Action Items
- Set next meetings

#### Attendees:

Honorable Jack Whitlow, Mayor, City of Port Lavaca

- Ms. Madeleine Cantu, USDA-NRCS
- Mrs. Suzan Davis, Realtor, REMAX

Honorable Tim Dent, City Council, City of Port Lavaca

- Honorable Jim Ward, City Council, City of Port Lavaca
- Mr. Daren Gurley, Director of Public Works, City of Port Lavaca
- Mr. Charles Hausmann CPA, Port Director, Calhoun Port Authority
- Mr. Chris Hines, Executive Director, Port Lavaca Chamber of Commerce
- Mr. Doug Jensen, Owner, Texas Lakeside RV Resort
- Ms. Lisa Peterson, Executive Assistant, Russell Cain Real Estate
- Dr. Juan Moya PhD., Consultant, Freese and Nichols
- Honorable Neil Fritsch, County Commissioner, Calhoun Commissioner's Court
- Allan Burger, Chairman of the Board, San Antonio Bay Partnership
- Ms. Katrina Moore, Community Development & Tourism Director, City of Port Lavaca
- Mr. Chad Odom, Economic Development Director, City of Port Lavaca

# CITY OF PORT LAVACA DEPARTMENT OF ECONOMIC DEVELOPMENT

Shoreline Revitalization and Environmental Enhancement Strategy TASK FORCE

#### Agenda 1/14/16

Agenda:

- Review the new TCEQ format for potential applications.
- Internally score projects on the list provided
- Provide inputs to the city projects as part of the individual process to be develop for each project
- Discuss how to proceed with scoring other projects, future activities, actions

#### Attendees:

Honorable Tim Dent, City Council, City of Port Lavaca

Honorable Jim Ward, City Council, City of Port Lavaca

Dr. Bill Harvey PhD., Communications Director, Formosa Plastics USA

Mr. Daren Gurley, Director of Public Works, City of Port Lavaca

Honorable Neil Fritsch, County Commissioner, Calhoun Commissioner's Court

Allan Burger, Chairman of the Board, San Antonio Bay Partnership

Mr. Russell Cain, Owner, Russell Cain Real Estate

Ms. Rhonda Cummins, Sea Grant Agent, Texas A&M Extension Services

Ms. Katrina Moore, Community Development & Tourism Director, City of Port Lavaca

Mr. Chad Odom, Economic Development Director, City of Port Lavaca

# CITY OF PORT LAVACA DEPARTMENT OF ECONOMIC DEVELOPMENT

Shoreline Revitalization and Environmental Enhancement Strategy TASK FORCE

Agenda 2/2/16

Agenda:

- Review Proposed Submission Draft
- Internally score projects brought forth by TASK FORCE
- Other waterfront related ideas to consider

## Attendees:

Honorable Jack Whitlow, Mayor, City of Port Lavaca

Honorable Tim Dent, City Council, City of Port Lavaca

Honorable Jim Ward, City Council, City of Port Lavaca

Mr. Daren Gurley, Director of Public Works, City of Port Lavaca

Honorable Neil Fritsch, County Commissioner, Calhoun Commissioner's Court Allan

Burger, Chairman of the Board, San Antonio Bay Partnership

Ms. Rhonda Cummins, Sea Grant Agent, Texas A&M Extension Services Mrs. Scotty

Jones, Finance Director, City of Port Lavaca

Ms. Kayla Myer, Reporter, Port Lavaca Wave

Dr. Bill Harvey PhD., Communications Director, Formosa Plastics USA Mr.

Chad Odom, Economic Development Director, City of Port Lavaca