



PORT OF HARLINGEN

RESILIENCY AND ASSET MANAGEMENT PLANNING PROJECT

2024

PORT INFRASTRUCTURE
DEVELOPMENT NARRATIVE

SUBMITTED MAY 10, 2024

Cover Page

Field Name	Guidance
Name of applicant	Port of Harlingen Authority
Is the applicant applying as a lead applicant with any joint applicants?	No
Project Name	Port of Harlingen Resiliency and Asset Management Planning Project
Project description	
Is this a planning project?	Yes
Is this a project at a coastal, Great Lakes, or inland river port?	Inland River
Is this project located in a noncontiguous State or U.S. territory?	No
GIS Coordinates (in Latitude and Longitude format)	26.201886, -97.599571
Is this project in an urban or rural area?	Rural
Project Zip Code	78550
Is the project located in a Historically Disadvantaged Community or a Community Development Zone? (A CDZ is a Choice Neighborhood, Empowerment Zone, Opportunity Zone, or Promise Zone.)	Yes – Historically Disadvantaged Community Designated as a Qualified Opportunity Zone under Internal Revenue Code § 1400Z–2
Has the same project been previously submitted for PIDP funding?	No
Is the applicant applying for other discretionary grant programs in 2023 for the same work or related scopes of work?	2024 PROTECT
Has the applicant previously received TIGER, BUILD, RAISE, FASTLANE, INFRA or PIDP funding?	FY 2022 PIDP
PIDP Grant Amount Requested	\$708,750
Total Project Cost	\$945,000
Total Federal Funding	\$708,750
Total Non-Federal Funding	\$236,250
Will RRIF or TIFIA funds be used as part of the project financing?	No

Project Description

The Port of Harlingen Authority (the Port) is located in the southernmost tip of Texas on the Arroyo Colorado River in the Rio Grande Valley (RGV). Since 1926, the Port has served as a transportation hub to the region, providing essential movement of goods due to proximity to the Mexican border and the Gulf Intracoastal Waterway (GIWW), connecting South Texas to markets as far as Central Canada through the nation's inland river system. The Port primarily handles agricultural products and fertilizer, key to the industries in the region. In recent years, diesel fuel transport has become a new opportunity for the Port.



Figure 1. The Port of Harlingen is an inland river port located on the Arroyo Colorado 25 miles from the Gulf Intracoastal Waterway.

The Port was created in 1926 as a navigation district, officially known then as the Arroyo Colorado Navigation District of Cameron and Willacy Counties (ACND), under the Texas Constitution Article XVI, Section 59 and governed under the Water Code, Chapter 62, providing the Port the authority to undertake the planning efforts included in this application. Although established in name and concept, the Port was not operational until 1952.

The RGV (consisting of Cameron, Willacy, Hidalgo, and Starr Counties located in a rural, southernmost portion of Texas,) is a major part of Texas' \$24.9 billion agricultural industry. The RGV has a population of approximately 1.4 million residents, representing about 5% of the state's total population.

The four RGV counties rank in the bottom 10% in per capita income relative to the other 254 counties in Texas, ranking 238th, 239th, 241st, and 253rd respectively based on the 2020 Census, a minor shift from 245th, 247th, 251st and 253rd respectively from the 2010 Census. The RGV population is more than 90% Hispanic.

Due to its location in the RGV, agricultural products such as cotton, grain, and sugar have remained a major commodity moving through the Port. About one third of all cotton produced in the RGV is processed at the two cotton gins located in the Port, and sugar cane was previously processed at a mill at the Port. Other than agricultural products, the Port also moves construction materials such as sand and cement, fertilizer, and refined petroleum. The Port has signed an option agreement with a green ammonia plant, which is projected to bring 500,000 tons into the Port each year.

The Port seeks \$708,750 in PIDP funding for the **Port of Harlingen Resiliency and Asset Management Planning Project** to conduct an infrastructure assessment, market analysis, and environmental analysis; develop a capital improvement plan; and update the Port's 2019 Master Plan¹.

Related Transportation Improvements

Multiple Port initiatives are driving the need for this Project including:

- The 2022 PIDP awarded project to upgrade the Port's main cargo dock, essential to serve the growing demand for waterborne shipments into and out of the Port and to provide container on barge (COB) services to the Port's customers for the first time.
- The 2021 MARAD Marine Highway Project Designation for the creation of COB service to reduce reliance on truck shipments into and out of the Port; increase transportation efficiency, reliability and safety; and reduce highway and associated environmental impacts.
- The 2020 state-funded project to construct a laydown yard, that can also serve as flexible space providing truck queuing areas, a breakbulk cargo and container laydown yard, and expand and fortify connecting Port roads. Once COB services are fully realized at the Port, the laydown yard will accommodate storage and handling of COB cargo and large bulk commodities such as bulk steel, wind turbine components, and other bulk or containerized cargo.
- The ongoing U.S. Army Corps of Engineers (USACE) project to expand the barge turning basin adjacent to the Port's main dock funded under Section 107 of the USACE Continuing Authorities Program that would allow for more efficient barge staging and loading/unloading operations. The turning basin is located at the south end of the Port, where the waterway narrows, and will extend up to a location near the existing Union Pacific Railroad Bridge. The west bank is also the most probable location for an expanded pier for additional future cargo handling facilities.

With the upgraded dock, Marine Highway Project Designation, construction of the laydown yard, and potential expansion of the turning basin, the Port is situated to expand services and grow into new markets. This Project includes the planning efforts needed to ensure the most benefits and best outcomes of these federal, state, and local investments in capital improvements and to position the Port to better serve its RGV customers in its second 100 years of operation beginning in 2026.

¹ Port of Harlingen Master Plan. 2019. https://portofharlingen.com/wp-content/uploads/2020/08/POH_Strategic-Plan20.pdf

Challenges

While industries such as refined petroleum are growing and new industries pose opportunities for growth, there have been challenges in the past year that have revealed vulnerabilities at the Port. In 2023, a barge struck the Port's main dock. In the following inspection and analysis, the Port discovered there were no records of the dock to indicate its age, design standard, or expected condition. This incident uncovered the need for the Port to fully understand the state of its infrastructure to plan for needed improvements. Another hurdle for the Port occurred in early 2024, when Rio Grande Valley Sugar Growers Inc., a long-time tenant and Texas's only sugar mill, was forced to close due to extreme drought conditions. Sugar accounted for nearly 3% of the Port's total tonnage in 2023, a number that has declined annually due to the escalating water shortage that led to the mill's closure. The Port had begun the efforts to develop an asset management plan when news of the closure forced them to stop and seek federal funding.

This project will allow the Port to be more proactive in responding to future events such as these by addressing maintenance and repair challenges, developing strategies to enhance resilience against climate change and related weather extremes, as well as exploring decarbonization opportunities and contingencies for global supply chain issues. The Project will also promote resilience to market changes by exploring ways to attract new tenants and minimize attrition. Given long lead times for investment planning and project implementation, the Port must understand the current infrastructure needs, as well as opportunities for improvements to continue serving as a transportation and economic hub for South Texas and accommodate future growth.

Statement of Work

The Port desires another 50 years of service life from its infrastructure assets to continue serving existing customers and support continuous growth. For this reason, it is critical that an effective infrastructure assessment and master plan be completed by the Port to better understand repair and potential replacement needs for aging infrastructure. The **Port of Harlingen Resiliency and Asset Management Planning Project** will include the following elements and establish the Port's inspection, assessment, and rehabilitation program:

1. Infrastructure Assessment

To aid in the development of the updated master plan, an infrastructure assessment of the Port will be conducted. This assessment will be broken down into two phases: a Baseline Assessment and a Design Level Assessment. The Baseline Assessment involves assessing the general overall condition of the facility, verifying that the facility was built according to available design drawings, and assigning condition assessment ratings for the inspected infrastructure. This assessment consists of a close visual examination or general tactile examination of a representative sample of structural elements where visibility is limited. Although this assessment can be referred to as a "swim by" or "walk by" inspection, it must be detailed enough to detect obvious major damage or deterioration due to overstress or other severe deterioration. The assessment will utilize a Port-provided topographic survey and underground utility information as a base for tracking the information obtained, and all testing conducted on the Port's infrastructure will comply with all state and federal requirements.

Once the Baseline Assessment is complete, a Design Level Assessment will be conducted on items deemed critical during the Baseline Assessment. A Design Level Assessment is a

detailed inspection that may require wrappings, coatings, corrosion, and/or marine growth to be removed from portions of the structure. Removal of wrappings, coatings, corrosion, and/or marine growth is costly; hence, the need to base the inspection on a representative sampling of elements. The Design Level Assessment effort will focus on typical areas of weakness, such as connections, attachment points, and welds and is intended to detect and identify damaged and deteriorated areas that may be hidden by surface treatments or corrosion or that may not be readily accessible for a Baseline Assessment inspection effort. The Design Level Assessment efforts will include in-water inspections where necessary.

This work will also include the conceptual design for the potential repairs necessary to address any deficiencies established with the Design Level Assessment. A rough order of magnitude (ROM) estimate will be prepared for the conceptual design, and this information will be used for the capital improvement plan and master plan update, as well as potential future grant applications.

2. GIS Database

A data set based on the information obtained during the fieldwork stage of the Baseline Assessment will be developed with the intention of incorporating it into a GIS system for the Port. This technically-advanced Program will position the Port to respond quickly and efficiently to future repair needs and environmental demands. This work includes:

- a. ArcGIS System Implementation and Administration
 - i. ArcGIS Online subscription will be owned by the Port
- b. GIS Database Configuration, Web & Mobile GIS Application Development & Field Data Collection Management
 - i. GIS database configuration based on infrastructure assessment findings
 - ii. Data publishing to ArcGIS Online and Web Viewer configuration
 - iii. Mobile GIS application development and deployment

3. Market and Trade Lane Analysis

A regional market analysis will be conducted focusing on existing trade lanes to identify potential markets that can take advantage of the Port's location and assets connecting to a larger regional supply chain system. A reasonable and high-level projection of cargoes by type and volume will be developed to highlight potential revenues based on existing industrial and commercial rates applicable to the region. A review of existing and publicly available market studies and reports will be conducted together with interviews of port tenants and likely new users of the Port.

4. Master Plan Update

The current master plan for the Port was developed in 2019. The prior master plan information will serve as a baseline, and the following will be incorporated into the updated master plan:

- a. Business Goals/Objectives – The Port's business drivers must be re-established prior to discussing site changes. Some topics include but are not limited to:
 - i. Impacts on existing operations
 - ii. Timelines associated with site growth
 - iii. Anticipated staffing capacity/requirements
 - iv. Regulatory issue identification

- v. Potential efficiencies
- b. Existing Conditions – It is imperative to understand and document existing conditions to include:
 - i. The size, location and adjacencies for major functional elements.
 - ii. General site flows of material, equipment, personnel and waste at the site.
 - iii. Observations based on a review of any existing master plan documentation and facility tours.
 - iv. List of issues to be addressed and/or resolved through the master plan or the capital improvement plan.
 - v. Site’s major systems and components (mechanical and electrical) for reliability, capacity and utilization understanding.
 - vi. Fleeting Area Analysis to review opportunities for barge fleeting areas along the existing channel. It takes approximately six and half hours to navigate the existing channel from the mouth of the Arroyo Colorado River to the port, and it’s only wide enough for one-way barge traffic.
- c. Establish Growth Criteria – The primary reason for updating the prior master plan is to intelligently manage site growth and Port assets. Prior to developing options, an objective growth criterion must be established and agreed upon. For example:
 - i. Cost – capital expenditure forecast/scenarios
 - ii. Logistics – site, flow, storage
 - iii. Industry definition – impacts on surroundings
- d. Master Plan Options – Based on the identified business drivers, existing condition observations and growth criteria, a series of design scenarios (year by year or as defined during the kickoff alignment session) will be developed. Applying data from previous steps will help determine the impact of various proposed options. Options will then be compared and selected for refinement using a scoring process, which will lead to the selection of one potential improvement option. for further development and documentation.
- e. Implementation (Phased) – The selected option will represent the final form of a potential site expansion and/or realignment. In order to show how each component of the option is constructed over time, a phased implementation plan will be developed, including a ROM opinion of cost.
- f. Master Plan/Documentation – The updated master plan will capture any outcome, findings, and solutions and is intended to be a living document. The document will include the outcome of the results of the Infrastructure Assessment, Market Analysis, CIP, Environmental Analysis and Grant Roadmap into a central document.

5. *Capital Improvements Plan Development*

Based on the outcome of the updated Master Plan, Market and Trade Lane Analysis and Infrastructure Assessment, a Capital Improvements Plan (CIP) will be established. The Plan supports the implementation of an updated Master Plan and will include:

- a. Best Practices and Benchmarks
 - i. Identify best practices for CIP data collection, monitoring, and communications to establish ongoing support for Capital Improvements Planning.

- ii. Convene a CIP Working Group of Port employees to review and refine best practices and establish performance benchmarks.
- b. Needs Assessment and Project Identification
 - i. Create standardized capital project submittal forms to support the establishment of a project catalog.
 - ii. Meet with the Working Group to validate project data and start to form priorities and map project locations.
- c. Strategic Analysis and Prioritization
 - i. Identify strategic capital priorities based on the updated Master Plan and create a project evaluation metric based on strategic priorities.
 - ii. Meet with the Working Group to review and assess projects based on project evaluation metrics.
 - iii. Conduct public engagement to solicit feedback and to provide information on capital priorities and projects.
 - iv. Develop a website to provide information to the public about the CIP process, priorities and projects.
- d. Capital Funds Assessment
 - i. In coordination with Port financial staff, identify all capital funding and revenue sources as well as grant opportunities and other external sources of funds.
 - ii. Evaluate annual capacity for capital spending over the initial five-year period.
- e. Capital Improvement Plan
 - i. Based on strategic analysis and funds assessment, identify prioritized projects for the initial five-year period and appropriate funds or revenue sources.
 - ii. Develop a draft CIP, including project catalog, strategic analysis, funds assessment projections, five-year program, and ongoing performance benchmarks and communications.
 - iii. Review a draft CIP with the CIP Working Group.
 - iv. Present draft CIP for public comment and adoption by Port leadership.

Once the funding for the CIP projects is determined, the Port will take a strategic approach to seeking available federal funding and submitting grant applications for those projects. This will include:

- a. A High-level Review of Grant Programs: Federal programs made available through both the Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA) will be analyzed. A list of programs will be developed with high-level program information and updated as additional programs are reviewed.
- b. Project Mapping: Assessment-identified projects will be mapped to potential programs, and a Grant Roadmap will be developed.

The opportunities will be prioritized based on the anticipated NOFO release date, the priorities of the Port (project needs), and the competitiveness of the project. For each opportunity, gaps will be identified (examples include data that needs to be collected, level of engineering or planning, public or workforce engagement, policy development, and coordination with partners, stakeholders, and federal agencies), as well as win themes. A plan

will be developed for the anticipated opportunity that includes key tasks that can begin before the NOFO is released to better position the opportunity for success when the NOFO is released.

6. Environmental Analysis and Community Involvement

The anticipated environmental review and permitting requirements for the critical projects established in the CIP will be identified, and any impacts to the project development schedule will be incorporated. The implementation of the updated master plan, improvements with the CIP, and any required NEPA process will include community engagement and public involvement as further described in Selection Considerations.

7. Grant Management and Administration

Grant Management and Administration will be conducted to oversee this federally-funded Project, report the progress, control the Project budget, and ensure Project schedule is met. The cost included in the estimate will allow the Port to contract with a third party to perform this task.

Project Location

Located along the Arroyo Colorado River, the Port of Harlingen stands 25 miles from the Gulf Intracoastal Waterway (GIWW), deeply integrated into the southern tip of Texas's regional transportation network. This integral inland port is positioned within Cameron County Tract 101, close to the City of Harlingen.

The Port sits on more than 2,800 acres of land with 650 linear feet of dry cargo wharf, 100 linear feet of dry bulk wharf and 5 docks. The Port's strategic location offers a comprehensive transportation network with easy access to the inland river system, rail, air, international highways, and ports of entry:

- Direct connection to M-10/M-69, that provide connection to M-95 Marine Highways
- Direct connections to US-77, US-83 and Interstate I-69
- Terminal rail is served by Union Pacific (UP) with interline connections to Burlington Northern Santa Fe (BNSF) and Canadian Pacific Kansas City (CPKC) Railroads
- Air service through the International Air Cargo facilities at Valley International Airport
- Foreign Trade Zone Number 62, one of the largest in Texas, covering the Harlingen Industrial Park and Airpark
- Pipeline served with connections to terminal areas in the Port



Figure 2. Port of Harlingen is situated in the southernmost tip of Texas along the Arroyo Colorado.

As a planning effort, this Project encompasses the entire Port. The Project is:

- Located in a rural area as identified by the Bureau of Transportation Statistics (BTS) Rural Funding Eligibility Tool
- Located at an inland river port
- A small project at a small port, and
- In a Historically Disadvantaged Community (HDC) in Cameron County Census Tract 101.01

While the City of Harlingen is not considered rural in the BTS Tool, the Port is in a rural area just outside of the city. As described, the Port sits on the Arroyo Colorado River, providing shallow draft barge access to the GIWW, designated as the M-10 and M-69, 25 miles away. The Port is a “small port” by MARAD definition, averaging about 3 million tons per year over the last three years. However, the Port has an outsized impact on the economic opportunities of the Rio Grande Valley’s disadvantaged communities and industries, such as agriculture.

Located in an HDC, the Port faces significant risks from natural hazards, with economic losses to building values and potential population reductions both scoring above the 95th and 77th percentiles, respectively, as per CEJST. Moreover, EJScreen indicates Tract 101.01 confronts a 90th percentile projected flood risk due to various natural events and has recorded an 85th percentile risk of particulate matter and 70th percentile risk for wastewater discharge.

Cameron County, including Census Tract 101.01, is classified by the Grant Project Location Tool as an Area of Persistent Poverty, according to the 2020 Census. The USDOT Equity Explorer identifies the community within Tract 101.01 as disadvantaged, suffering from severe lack of transportation access (90th percentile) and high transportation cost burdens (73rd percentile). Additionally, 53% of households lack internet access. Harlingen struggles with significant educational and linguistic barriers: 31% of the population has less than a high school education and 70% of homes are Non-English speaking households per EJScreen. Furthermore,

CEJST reports that more than 79% of households in Tract 101.01 earn less than twice the federal poverty level.

The **Port of Harlingen Resiliency and Asset Management Planning Project** is essential to the future operations and economic resiliency of not only the Port, but the disadvantaged region it serves.

Grant Funds, Sources, and Use of Project Funding

The total Project cost for the **Port of Harlingen Resiliency and Asset Management Planning Project** is \$945,000. This application request for federal assistance is for \$708,750 to cover 75% of the cost investment, as shown in Table 1. All project costs will occur in Census Tract 101.01, within a rural, Historically Disadvantaged Community. A detailed cost estimate can be found in Table 2.

Because the Project is in early planning stages and final cost details are not yet known, the Port understands the final project cost may increase. The Port is committed to funding the full Project should costs increase. The Port has included with this request for federal assistance a commitment letter to cover \$236,250 or 25% of the Project costs as well as any potential project overages due to increased costs that exceed the PIDP grant award. Any potential non-federal share in project costs would be paid full in cash from revenue streams of the Port. This Project does not have any other source of funds. The Project is expected to be complete by mid-2026, well before the September 2032 funding expenditure deadline.

The Port recently lost a longtime tenant, the Rio Grande Valley Sugar Growers, Inc., the region's only sugar mill, that represented about 3% of the Port's tonnage. For a small port, that loss of business causes real economic loss. The Port had begun the efforts to develop an asset management plan when news of the closure forced them to stop and seek federal funding. The Port requests \$708,750 to complete this vital asset management planning and conduct market analysis to attract new tenants.

Table 1. Project Funding Sources

Port of Harlingen Resiliency and Asset Management Planning Project		
Funding Source	Percent	Total Funding
PIDP Funds	75%	\$708,750
Other Federal Funds	0	\$0
Non-Federal Funds	25%	\$236,250
Total	100%	\$945,000

Table 2. Project Costs by Component

Project Component	Project Cost
Infrastructure Assessment	\$580,000
Market and Trade Lane Analysis	\$55,000
Capital Improvement Plan and Master Plan Update	\$225,000
Environmental Analysis & Community Involvement	\$40,000
Grant Management and Administration	\$45,000
Total	\$945,000

Merit Criteria

Section A: Achieving Safety, Efficiency, or Reliability Improvements

Safety

Understanding the current state of the Port's infrastructure is paramount to providing a safe environment for barge operators and dock workers and is a primary purpose of this Project. The Baseline Assessment included in the Infrastructure Assessment will determine the overall condition of Port facilities, verifying that each was built according to available design drawings, and assign condition assessment ratings for the inspected infrastructure. Depending on the condition assessment rating, the use of certain infrastructure may need to be limited to ensure the safety of workers.

Additionally, with an asset management plan in place, the Port will be able to proactively address minor repairs more routinely before they become a bigger problem, or even a failure, that could result in injury if workers are present.

The Master Plan update will include a review of the Port's mechanical and electrical systems to identify any potential safety concerns and make recommendations for improvements including to power poles and lines and electrical distribution systems. The 2019 Master Plan identified drainage of the roadway network within the Port as a problem, as well as roadway markings, speed limit signs and other general signage. While the Port has projects to address all the identified drainage concerns, the Master Plan update included in this Project could identify areas for future drainage upgrades, especially alongside any substantial improvements the plan may recommend. The Plan updated through this project will expand on the previous version to examine the roadway network for potential upgrades to pavement condition, markings, and traffic signs to enhance the safe movement of trucks as well as staff within Port property, including potential removal of conflict areas if they exist.

Barge fleeting is a challenge in the Port's waterway, with the need for additional mooring points for staging barges away from the cargo pier until needed for operations identified in the 2019 Master Plan. No dedicated fleeting areas exist today, with barges currently using a location that has a few multi-pile structures to tie off. This makeshift fleeting operation is unsafe and could

result in barges coming loose and floating through the waterway. A fleeting area analysis will be conducted as part of the Master Plan update to determine how many areas are needed and the best suited locations, so barge operators have a safe place to tie off. This is especially important during inclement weather events. Additional benefits of this analysis are further discussed in the Efficiency section.

The addition of slope protection where needed will help protect Port infrastructure and staff should the channel's slope fail. The infrastructure assessment will include an examination of existing critical slopes within the Port and include any recommendations on how to protect those areas. These critical areas could include slopes greater than 25%, adjacent to water or major infrastructure, or those experiencing significant erosion.



Figure 3. A 2023 barge strike damaged one of the Port's main docks making the infrastructure unsafe for barge operators and dock workers to utilize. Even with temporary repairs, the dock is still only able to provide half its intended capacity.

Efficiency

The Port handled more than 800 barge calls, 585 trucks and nearly 40 rail cars in FY2022-2023. Additional truck traffic is generated by fueling trucks that is not captured in the Port's tonnage reports. A key purpose of this Project is to enhance the Port's ability to efficiently handle this existing traffic and to position the Port to increase throughput.

In the Port's 2019 Master Plan, the main cargo dock was identified as being highly congested and a major barrier to future business development. The 650-foot-long by approximately 90-foot-wide concrete dock was at full occupancy and schedule overlaps between vessels and barges using the facility impacted operations. At the time the Plan was developed, no recent inspections of the dock were available and the maximum static landing weight capacity on the dock apron could only be estimated, but not confirmed, at approximately 700 to 750 pounds per square foot. The Plan recommended a dock inspection and assessment to determine future opportunities for dock utilization². The Port was awarded a 2022 PIDP grant to upgrade the main cargo dock and anticipates breaking ground at the end of 2024 or early 2025. The cargo dock project will not only increase the infrastructure's ability to handle additional cargo but also allow the Port to

² Port of Harlingen Master Plan. 2019. https://portofharlingen.com/wp-content/uploads/2020/08/POH_Strategic-Plan20.pdf

handle containers on barge. The anticipated expansion of the Port's turning basin is still a limiting factor for full container on barge (COB) service. This Project will explore other Port improvements that could enhance this new service once the expansion is complete to ensure these two federally-funded projects are leveraged for maximum impact.

After the 2023 barge strike, the Port made temporary repairs to get the dock back into service, but only half the dock is currently operational. The Port recently initiated the remaining repairs needed to fully restore operational capacity of the dock. This decreased capacity has affected the Port's largest revenue tenant and has resulted in an estimated loss of 120,000 tons. Some of the barges that would have called on the main dock have had to wait at mooring infrastructure at the mouth of the Arroyo Colorado Channel and caused bottlenecks and increased congestion.

If the Port had fleeting areas nearby, the barges could have waited there, decreasing travel time. The fleeting areas analysis previously described will not only identify locations to provide a safe place for operators to stage but provide for more efficient barge movement along the channel. Barge traffic is restricted to one way due to pinch points along the channel that prevent its widening, such as the historic Arroyo Colorado Lift Bridge. The fleeting area analysis will identify locations along the channel that are wide enough to allow barges to pass each other, increasing throughput and efficiency. It is especially important to address the waterway's current limitations as the Port grows. The Port recently signed an option agreement for a green ammonia facility that will increase traffic on the waterway.

The Master Plan update includes a review of the Port's existing operations, including the size, location and adjacencies of major functional elements and the flow of material, equipment, personnel and waste at each site. This review will analyze the efficiency of current Port operations and make recommendations for improvements so the Port can intelligently manage its site growth and assets. The established growth criteria will consider logistics, efficient site layout and flow of operations in addition to impacts to the surrounding areas.

This will include the flow of truck traffic through the Port and as it enters and exits the Port onto the local roadway network. Since the 2019 Master Plan, the Port has received state funding and completed three truck queuing and laydown yards that provide a safe place for trucks to wait without disrupting the efficient movement of cargo through the Port. The Master Plan update will consider any additional traffic flow concerns or the need for future truck queuing areas needed due to increased volume, new tenants, or infrastructure improvements.

The asset management plan will allow the Port to routinely maintain infrastructure, reducing the risk of an unplanned closure. Additionally, the Port will be able to schedule needed maintenance around high-volume times and seasons, reducing disruption to Port operations and the associated impact on the efficient movement of goods.

The Capital Improvement Plan (CIP) will be used to identify and prioritize future projects at the Port and to establish a process for funding and carrying out these projects, which will help to improve the efficiency of completing infrastructure improvements. As part of this plan, a list of prioritized projects to be carried out over a five-year period will be developed, along with a matrix matching projects to funding opportunities. These resources will save the Port both time and money as they will not have to go through these steps for each individual project and will have more time to prepare for upcoming opportunities.

In addition to better maintaining existing infrastructure, the Project is anticipated to identify new infrastructure that could support efficiency improvements and an increase in throughput. This will be coordinated with the operational analysis as well as Market Analysis to support the increase in types of cargo that can be moved through the Port.

Reliability

Identifying infrastructure deficiencies is one of the primary purposes of this Project. The infrastructure assessment will inform an update to the Port's Capital Improvement Plan resulting in a prioritized list of improvements to remedy Port infrastructure deficiencies and ultimately improve cargo operations.

The Port currently lacks the infrastructure to maintain reliable rail service. The Port is responsible for maintaining the rail track and roadbed within the Port's property. The 2019 Master Plan identified numerous challenges with the rail line that this Project will seek to explore further and consider remedies to, including limited storage for rail cars, no run-around track for locomotive movement on site, poor and inconsistent ballasting, poor drainage on the rail bed, and low radius turns designed for older and shorter railcars. Reported derailments have occurred even at slow speeds when Union Pacific (UP) locomotives pick up and drop off freight rail cars. The downtime of these derailments decreases the reliability of service, in addition to the safety and efficiency impacts.

The Port made repairs to the track and ties, as well as updated two crossings in 2022 in response to a tenant that had new business coming in, but the rail beds have not been improved. The identified repair and maintenance needs are expensive and due to the underutilization of the tracks and low revenue generated, not worthwhile. This Project will not only update the understanding of track conditions but determine if more reliable rail service is a worthwhile investment. The Port is currently working toward a public private partnership agreement with a rail operator that will expand on this Project to help determine the best use of Port rail, as well as identify opportunities to develop port-owned property with rail service.

After the 2023 barge strike, the damaged dock was out of service for two and half weeks. Even after temporary repairs, only half the dock has been operational. As previously described, some barges tied off at the mouth of the channel to await availability of the dock but at least one barge chose to go instead to the Port of Brownsville due to the unreliability of the Port's main dock. The Infrastructure Assessment will identify compromised structures, such as the timber and piles of the main dock that were already damaged prior to the strike, as well as protective measures, to prevent as much damage as the allision caused to the main dock.

The GIS database will establish the Port's inspection, assessment, and rehabilitation program. By consolidating data into a single, accessible tool, the database will provide for more reliable Port operations. Both responding quickly to needed repairs and proactively planning for maintenance will reduce downtime, allowing for more reliable operations. The review of mechanical and electrical systems included in the Master Plan will also help identify operational needs. Reliable systems that are well maintained will not only help the Port retain current customers but may be an attractive selling point for the Port to attract new business or tenants.

Section B: Supporting Economic Vitality at the Regional or National Level

With the expansion of the Panama Canal Locks in 2016, there has been an increase in international vessel movement in the Gulf coast region. The Port facilitates trade of bulk and

liquid cargo in Texas, Louisiana and Mexico, providing an efficient and economical transportation link along the Texas Gulf for shallow draft barge movement.

The Port connects the Rio Grande Valley to markets as far away as the Great Lakes and into the central eastern regions of Canada through the Inland River System. According to a 2022 economic impact study, the Port supports 920 direct jobs generated by marine cargo activity at the Port, nearly \$50 million in wages and salaries, over \$200 million in business revenue, and over \$16 million in state and local taxes³.

In FY 2022-2023, the Port accommodated more than 3.2 million tons of cargo and more than 20.8 million barrels of petroleum. The commodities moved at the Port include cotton and grain, which are primarily exported, and fertilizer and aggregates, which are primarily imported. Refined petroleum is both exported from and imported to the Port of Harlingen.

Cotton is a commodity already transported through the Port. The State of Texas generated about \$1.8 billion in value in 2019, from the production of 6.3 million bales. Approximately 339,000 bales valued at \$6.8 million were produced in the RGV region that year⁴. About one-third of all cotton produced in the RGV is processed at the two cotton gins located in the Port, and currently all cotton is exported by truck. Cotton growers and producers seek to export cotton from the Port via COB to access major markets more efficiently.

In 2020, the Texas legislature passed House Bill 1325 legalizing industrial hemp production in the state. The Port is in active negotiation with the local Tetra Hemp Company and its partner Renaissance Fiber in Wilmington, North Carolina, to serve the emerging customer base of hemp producers. In addition, new and emerging producers for chickpeas, lettuce, and other specialty agricultural products in the RGV region are seeking new processing and shipment opportunities through the Port. RGV farmers seeking to move a portion of their production to these profitable crops have requested that the Port make available COB service.

As described in previous sections, to initiate COB services and make these unique economic opportunities real, the Port must complete both the 2022 PIDP awarded main dock upgrade as well as the expansion of the turning basin. However, additional infrastructure or equipment upgrades may be needed to fully realize the benefits of COB operations. The Port of Harlingen Resiliency and Asset Management Planning Project is needed now to identify any necessary improvements soon after the main dock project is complete and before the completion of the turning basin expansion.

The Port's rail connectivity is an untapped resource with the potential to help expand the Port's portfolio of customers. As previously described in the Reliability Section, the Port intends to enter into a public-private partnership with a rail operator to explore the benefits of developing rail on Port-owned property across State Highway 106. This currently undeveloped property has the potential, if developed, to support infrastructure such as a rail loop to open the Port to new customers and economic advantage.

³ Economic Impact of the Port of Harlingen. 2022. <https://portofharlingen.com/wp-content/uploads/2022/10/Harlingen-impact-report-2022.pdf>

⁴ USDA-NASS Monthly Crop Production reports. USDA-NASS Texas Field Office 2019 Annual Cotton Review



Figure 4. The Port sees more than 800 barges each year moving more than 3 million tons annually.

The Market and Trade Lane Analysis will identify potential new markets and customers to expand the Port's ability to support additional trade as well as opportunities for new tenants and job opportunities for the region. The Analysis will develop a reasonable and high-level projection of cargoes by type and volume and will highlight potential revenues based on existing industrial and commercial rates applicable to the region, thereby improving the economic advantage of the Port and increasing its competitive advantage.

Section C: Leveraging Federal Funding to Attract Non-Federal Sources of Infrastructure Investment

The Port has committed to provide \$236,250, or 25% of total project costs, as demonstrated in the letter of funding commitment attachment. As previously described, the Port recently lost a longtime tenant that represented 3% of tonnage volumes. That loss is a direct economic impact to the Port. Despite these funding constraints, the Port has committed to a local match investment above the required 20% due to the exponential opportunities and benefits this project will create.

The Port had begun the efforts to develop an asset management plan and was prepared to invest in the total cost when news of the closure forced them to stop and seek federal funding. This PIDP request of \$708,750 to complete this vital asset management planning and conduct market analysis is essential for the Port to update critical infrastructure and attract new tenants.

As previously described, the Design Level Assessment will only be conducted on items deemed critical during the Baseline Assessment as the process to assess infrastructure at this level is

costly. This process means the Port will invest Project costs on the infrastructure that will have the biggest impact to Port safety and operations.

Section D: Port Resilience

As described further in the Climate Change and Sustainability Section, the National Oceanic and Atmospheric Administration (NOAA) recognizes the anticipated decline in annual precipitation in South Texas that threatens agricultural production. With continuing drought conditions anticipated, the Port's ability to diversify its portfolio of tenants through the Market and Trade Lane Analysis is critical to maintaining economic resilience.

One of the tenants of the Port, Rio Grande Valley Sugar Growers Inc., was the only operating sugar mill in the state of Texas. However, due to ongoing drought conditions and issues with water allocation described further in the Climate Change and Sustainability section, the mill announced its closure earlier this year⁵. Approximately 150,000 tons of sugar from the mill were stored at and shipped from the Port each year⁶. This sugar was stored in a purpose-built, 35,000 square foot warehouse, which was constructed in 2008. The mill employed over 500 full-time and seasonal workers each year, in addition to sugar cane growers, so this closure will have a major impact on employment in the Rio Grande Valley.

In early March, the last load of sugar from the Sam Sparks Sugar Warehouse pushed off Port docks headed to the Domino Sugar Refinery in Chalmette, LA, ending a nearly 40-year partnership with the Port of Harlingen to ship raw sugar, and an era of sugar growth in the area that has lasted more than 200 years.

"Any organization that closes its doors is a loss and we never want to lose anyone," Port Director Walker Smith said. "Although sugar was not our main commodity, this is a huge loss for not just the Rio Grande Valley economy but the entire industry. We know how much they advocated with every federal outlet possible to push the issue for resolution and it is heartbreaking the ripple effect this will have on many Valley families and agriculture of all kinds."

The market analysis will identify potential markets that can take advantage of the Port's location and assets, diversifying the Port's portfolio of tenants and enhancing the Port's resiliency to market changes such as tenant closures. Potential revenues will be estimated so that the Port can better plan ahead for infrastructure investments.

⁵ [Texas Farm Bureau](#)

⁶ [Rio Grande Guardian](#)



Figure 5. Diesel fuel has become a recent commodity diversifying the Port's portfolio of cargo. The Project will examine additional market opportunities including alternative and renewable energy.

In 2023, a barge struck and damaged a dock at the Port. When Port employees looked into the damages, they found that there was no information or records about the dock. This situation revealed a larger asset management issue at the Port, which can make it difficult to respond to both natural and human-induced impacts to facilities and infrastructure.

This planning grant will allow the Port to take stock of all its available assets and their condition, and to create a plan for how to manage them. With more available information and processes in place, Port staff will be able to handle situations impacting infrastructure, such as the human-caused barge strike, more efficiently, thereby reducing delays and lessening impacts to the supply chain. These plans will also help the Port to identify new uses for facilities and new cargo types that can be accommodated, which will help with the creation and retention of employment opportunities.

The **Port of Harlingen Resiliency and Asset Management Planning Project** will be informed by the [National Climate Resilience Framework](#) and will be focused on increasing the Port's ability to respond to natural and climate-related hazards and human-caused emergencies. The Project will also incorporate evidence-based climate resilience and adaptation features and include a plan to monitor the performance of these features to ensure that the Project will result in positive, quantifiable impacts on the supply chain.

The Port also supports and participates in the efforts of the Arroyo Colorado Watershed Partnership. The Arroyo Colorado Watershed Partnership, administered by the Texas Water Resources Institute (TWRI), a unit of Texas A&M AgriLife, in cooperation with the Texas Commission on Environmental Quality (TCEQ) and the Texas State Soil and Water

Conservation Board (TSSWCB), is an innovative gathering of federal, state, and private organizations who meet to improve watershed health, integrate watershed management, and make better use of watershed project funding. The partnership focuses on the interrelated issues of water quantity (supply), water excess (flooding and drainage), habitat, and water quality, particularly runoff pollution concerns⁷.

Selection Considerations

Climate Change and Sustainability

The Rio Grande Valley is a prime location to grow sugar cane productively, however, the one essential thing needed: water. Each year the area's irrigation water shortage creates a growing impact for growers due to Mexico's lack of cooperation in not holding up its end of the 1944 Water Treaty. Sugar accounted for 3% of The Port of Harlingen's total tonnage in the last fiscal year. A number that has declined annually due to the escalating water shortage that led to the mill's closure. In the last few years, farmers were cultivating about 34,000 acres, which dwindled to only 14,000 acres last year due to the severity of the water situation. This season, the mill expected about 10,000 acres, which would mean the mill would run at a loss and ultimately brought the board to the decision to shutter its doors.

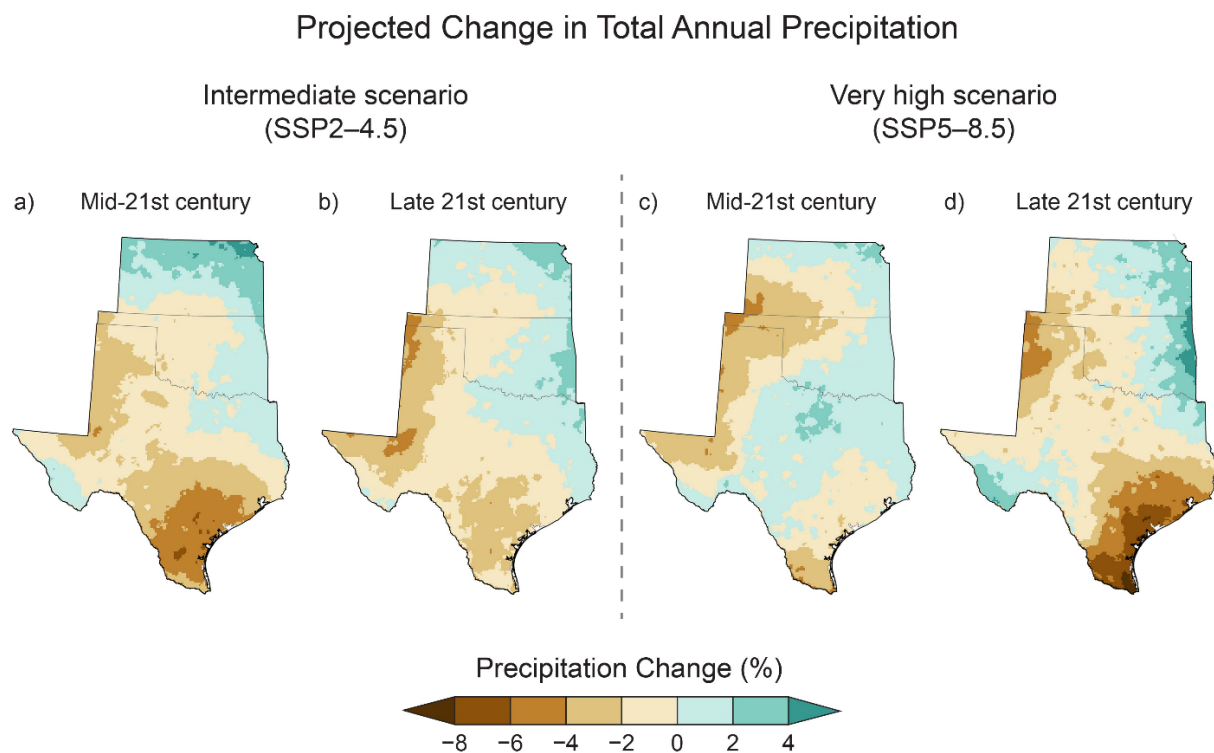


Figure 6. The NOAA U.S. Climate Resilience Toolkit highlights the anticipated decrease in precipitation for South Texas.

“Agriculture is too important to all residents of the Rio Grande Valley to turn a blind eye,” said Rio Grande Valley Sugar Growers, Inc. Sugar Mill President and CEO Sean M. Brashear.

⁷ [Arroyo Colorado Watershed Partnership](#)

NOAA has identified the Southern Great Plains region, including Kansas, Oklahoma, and Texas, as susceptible to some of the most extreme weather on the planet, with annual precipitation anticipated to decline by 4% or more in the southernmost tip of Texas under a very high scenario. As shown in Figure 6, “drier conditions threaten agriculture and water supplies in parts of the Southern Great Plains (brown)”. These continuing drought conditions decrease the Port’s economic competitiveness. The Market and Trade Lane Analysis will identify potential new markets and tenants allowing the Port to diversify its portfolio and maintain economic resilience.

The Port is committed to addressing climate change and environmental justice (EJ) impacts in this project and as a general policy. The Port’s 2022 PIDP funded dock upgrade project will facilitate greater use of container on barge (COB) services and can significantly reduce greenhouse gas emissions from the truck export of cotton and other commodities from the Port.

The Port has adopted a Climate Action Plan⁸, which would comply with the DOT’s *Climate Action Plan - Revitalizing Efforts to Bolster Adaptation & Increase Resilience* (August 2021)⁹. Policies and actions taken under this initiative would be developed and implemented to support the U.S.’s National Climate Task Force’s mission to “...facilitate planning and implementation of key Federal actions to reduce climate pollution; increase resilience to the impacts of climate change; protect public health; conserve our lands, waters, oceans, and biodiversity; deliver environmental justice; and spur well-paying union jobs and economic growth.”¹⁰

This Project will support the Port’s Climate Action Plan and other anticipated policies and actions including increasing COB shipping; reducing truck emissions at the Port by enforcing a no-idle policy; and repairing infrastructure rather than replacing it (for example, less material is needed for patching). When replacement is necessary, sustainable materials will be researched and considered for use. The Port’s Climate Action Plan includes action items to create a monarch butterfly sanctuary, increase native plants and consider a living shoreline to dissipate wave action, create a No-Idle Zone within the Port to decrease air and noise pollution, further research options under the Leadership in Energy and Environmental Design (LEED) certification program when renovating or constructing new buildings, increase the use of construction material made from recycled products, and reuse material in the new main dock rehabilitation project. The Master Plan update will consider the feasibility and advise implementation of these activities. The Climate Action Plan also includes action items to increase community outreach for environmentally focused projects and organizations, including Arroyo Colorado clean up and preservation.

The **Port of Harlingen Resiliency and Asset Management Planning Project** will be developed in alignment with the U.S. National Blueprint for Transportation Decarbonization from the USDOT¹¹. One of the three strategies highlighted within the Blueprint is deploying zero emission-vehicles and fuels. The information and guidance provided for this strategy will be used to evaluate the current state of vehicles at the Port and to identify opportunities for transitioning to clean options.

The main goal of the plan is to assess the infrastructure of the Port and to create a plan for managing and maintaining these assets. Assessing the current state of infrastructure will allow

⁸ <https://portofharlingen.com/2024/05/09/environmental-and-social-equity/>

⁹ https://www.transportation.gov/sites/dot.gov/files/2022-04/Climate_Action_Plan.pdf

¹⁰ <https://www.whitehouse.gov/climate/>

¹¹ [U.S. National Blueprint for Transportation Decarbonization](#)

the Port to develop and prioritize future projects to address vulnerabilities and concerns caused by climate change.

Equity and Justice⁴⁰

The Port will aid in revitalizing Cameron County's economy by creating substantial employment opportunities for its disadvantaged populations, especially considering the recent loss of 190 full-time and 300 seasonal employees with the closure of the sugar mill. As noted by the USDOT Climate and Economic Justice Screening Tool (CEJST), Census Tract 101.01 ranks in the 79th percentile for low-income households, 73rd percentile for number of persons who are unemployed and 84th percentile of households where income is at or below the federal poverty level.

According to the USDOT ETC Equity Explorer, Census Tract 101.01 ranks above the 90th national percentile for transportation insecurity and 86th for social vulnerability, with the population over age 25 lacking a high school diploma ranking in the 93rd percentile (28 percent of residents), persons who are uninsured in the 91st percentile, and lack of internet access in the 99th percentile. The Port will leverage these insights to launch targeted job creation efforts that will directly address the region's economic challenges. This tract is also in the 85th percentile for fine particulate matter, highlighting the importance of the Port planning to reduce emissions and truck traffic.

The Port's public engagement, including the outreach conducted through this project regarding the Capital Improvement Plan, will include redundant communication modes considering the community's limited internet access and seek to remove barriers to participation. As mentioned in the Project Location, 70% of households in Harlingen speak a language other than English at home, primarily Spanish. Translation needs for outreach to the public and other interested parties will be considered at the beginning of the Project.

The Port has adopted an Environmental Policy (No. 4.7.22.2)¹² which generally outlines its goals for furthering environmental stewardship in Port activities and is consistent with EJ directives. Per this policy, the Port will, among other goals, integrate public concerns into operating decisions and facility development planning processes, provide community outreach and leadership on environmental issues, and respond in a timely fashion to inquiries or expressions of concern regarding environmental issues related to Port activities. To support this policy, the Port has developed a Social Equity Action Plan¹³ that includes increased community outreach, funding available for sponsorships and community support, and bilingual content such as the Port's website and public notices.

Workforce Development, Job Quality, and Wealth Creation

As of 2022, the Port of Harlingen directly supported 920 jobs generated by marine cargo activity at the Port. In this same year, the Port adopted the Social Equity Action Policy in order to address equity and the inclusion of historically underserved communities. This policy is focused on creating equitable opportunities and outcomes for both employment and business practices at the Port. Beyond this, the Port also supports workforce development among their own employees and the employees of tenant businesses by sharing programs and business development opportunities offered by Texas State Technical College (TSTC), a local technical college that

¹² <https://portofharlingen.com/2024/05/09/environmental-and-social-equity/>

¹³ Ibid.

offers relevant programming for subjects such as diesel equipment technology and maritime welding.

The Port of Harlingen is heavily involved in the economic development and planning of the region and is also well represented in various professional Port organizations. Through collaboration with the Harlingen Economic Development Council, the Port is able to assist with recruiting new businesses, manufacturing, and industries to the Rio Grande Valley. They are involved with local, regional, and statewide planning efforts through the Harlingen Area Chamber of Commerce, Rio Grande Valley Metropolitan Organization, and the TxDOT Port Authority Advisory Committee. The Port is also an active member of the Texas Ports Association, Gulf Ports Association, American Association of Port Authorities, and Inland Rivers, Ports, and Terminals, Inc.



Figure 7. Cotton and other agricultural products are key commodities moved through the Port, supporting local industries.

The Port's Social Equity Action Plan includes a goal to increase minority/diversity supportive and small business participation. The Port plans to identify the existing rates of minority/diversity participation and determine specific target rates to be achieved by the Port and associated parties. Additionally, the Port plans to include diversity/minority employment/ownership inclusion for preferential consideration for contract services; create a small business workspace that offers a place for tenants that do not have facilities for office work of meetings; and provide business connection services bringing local resources for business development services together with current and potential tenants. The Plan also outlines how the Port will create an equitable, inclusive, and welcoming workplace through diversity and

inclusion training for all employees, employee-centered growth and advancement, and employee wellness opportunities. One of these wellness opportunities includes providing walking trails and de-stress break areas outdoors for employees. The Master Plan update will explore where these areas are best located to ensure the safety of employees.

Project Readiness

Technical Capacity

The Port of Harlingen (the Port) is able and prepared to responsibly execute grant funding if awarded for the Resiliency and Asset Management Planning Project. In the wake of the closure of a longtime tenant and the degradation of aging infrastructure without sufficient historical data, these planning efforts are necessary to update the Port's 2019 Master Plan and prepare for future growth opportunities.

The Port successfully managed a 2013 Port Security Grant from the Federal Emergency Management Agency (FEMA) and is nearing grant agreement on a 2022 PIDP grant. The Port has included funding in the cost estimate to contract with a grant administration and management firm to ensure smooth and successful implementation of federal funds.

The cost associated with the work described in this grant application was derived from comparing costs for projects with similar scope and size. The work associated with this project will determine what Port infrastructure needs to be repaired and/or replaced, so there was no design completed to support this application.

While the planning efforts included in this Project are not a part of other regional or state plans, the Port does coordinate with the Texas Department of Transportation (TxDOT) to include Port impacts and needs in the Texas Port Mission Plan and Freight Plan. The Port's Director, Walker Smith, serves on the Texas Port Authority Advisory Committee (PAAC) representing small, inland river ports at the state level.

Project Schedule.

The tasks included in the Project Statement of Work are anticipated to be complete in one year. Many of the tasks can be conducted concurrently with the Master Plan update, incorporating the results of the Infrastructure Assessment, Market Analysis, CIP, Environmental Analysis and Grant Roadmap into a central document.

The Market and Trade Lane Analysis will be conducted concurrently with the Infrastructure Assessment and development of the GIS Database. The results of these initial activities will drive the CIP, Environmental Analysis and Grant Strategy Roadmap. Public engagement will be conducted throughout the process including a website update as the Project is kicked off. As the Port is in a census tract in the 99th percentile for lack of internet access, the same content will be made available at the Port Office and community facilities such as libraries and community centers. The Project will provide an opportunity to first share what the Port is doing and another opportunity to share the data gathered and collect input once recommendations have been identified, before the Master Plan is finalized and adopted.

Table 3. Project Schedule

Project Milestones	Scheduling Target
Advertise for consultant qualifications upon notice of grant award	October 2024
Complete the consultant qualifications evaluation and selection process	January 2025
Complete the consultant contract negotiation and approval process	March 2025
Execution of the Grant Agreement with MARAD and Port of Harlingen	April 2025
Execution of the consultant contract & issuance of the Notice to Proceed	May 2025
Begin Grant Management and Administration and Community Involvement	May 2025
Begin Infrastructure Assessment	June 2025
Begin Capital Improvement Plan & Master Plan Update	August 2025
Begin Market and Trade Lane Analysis	September 2025
Complete Market and Trade Lane Analysis and Infrastructure Assessment	January 2026
Begin Environmental Analysis	February 2026
Complete Environmental Analysis and Community Involvement	April 2026
Complete CIP and Master Plan Update	May 2026
2024 PIDP expenditure deadline	September 30, 2032

Risk Mitigation.

Given the anticipated Project completion date of mid-2026, the Port has confidence that federal funds will be obligated before the expenditure deadline of September 30, 2032. As one mitigation strategy, the Project budget includes funds to contract with a grant administration and management firm to ensure compliance and adherence to budget and schedule. Due to the planning-focused scope of the application, procurement challenges such as compliance with Build America Buy America are not anticipated.

In the event of inclement weather, inspections included in the Infrastructure Assessment would need to be delayed. However, the schedule allows for the time to absorb these delays and the risk of delays is not high given these activities will likely occur in early summer.

Due to the vital role the Port plays in regional economic opportunities, the Port does not anticipate any public pushback on the Project's planning efforts. The Port has included public engagement in the scope and schedule to ensure clear communication of these planning efforts as well as opportunity for input from the surrounding communities and stakeholders.

It is important for the Port's board of commissioners to support these planning efforts and adopt the CIP. Board members have discussed the need for the Infrastructure Assessment. Early in the discussions, many members had doubts about the value of stopping to invest precious limited funding in assessing infrastructure when there are so many known operational and capital needs.

However, after hearing about the many benefits to the safety, efficiency and reliability of Port operations, the Board realized this planning effort must happen if they are to continue serving existing tenants and expand into new markets. The Board signaled their support of this Project through approving this grant application and committing to a non-federal match of 25%.

Environmental Risk

As a planning project, the **Port of Harlingen Resiliency and Asset Management Planning Project** does not require environmental review, but identifying potential environmental risks with future Port projects is one of the purposes of the effort. The Port is considering the development of an Environmental Assessment (EA) in the coming years that could encompass multiple projects identified as competitive for federal funding in the Grant Strategy Roadmap..

From initiation of the NEPA process (assuming all projects are identified and described through the CIP, including purpose and need established), the NEPA process would take 12 months from agency scoping through issuance of a FONSI by MARAD. Key issues such as Section 106 and Section consultation with both US Fish and Wildlife Services (USFWS) for terrestrial species and aquatic mammals and NOAA/National Marine Fisheries Service (NMFS) for other ocean species (if sea turtles, corals, etc. are known to use the river) could potentially extend the timeline to 18-24.

The Port would include an announcement on their website and in community facilities initiating the Public Involvement process and requesting input from the public, elected officials, interested parties, etc. The EA would be posted on the MARAD and Port website for public review/comment before the FONSI is issued. Depending on the complexity of project recommendations, the Port would consider holding a public meeting or hearing.

As a commercially navigable waterway, US Coast Guard (USCG) and US Army Corps of Engineers (USACE) coordination and permitting will likely be required to execute future identified projects. The average depth of the waterway is 2-13 feet and may require regular (permitted) dredging or project-specific dredging. In the 1940s, the USACE dredged and channelized the lower 25.47-mile segment of the river which would make that section a federal civil works project, requiring review and permitting under Section 408 of the Clean Water Act.

The Arroyo Colorado serves as a nursery and foraging areas for several marine species. The USFWS Information for Planning and Consultation (IPaC) planning tool could be used for informal assessment purposes. The Arroyo Colorado is also a major recreational fishery, segments of which are considered impaired waters due to high bacteria levels and low dissolved oxygen. As previously discussed, the Arroyo Colorado Watershed Partnership developed a watershed protection plan that went into effect in January 2007. The plan describes the state of the watershed, presents a strategic plan to improve environmental conditions and proposes a monitoring plan to document improvements during and following implementation of the plan. The partnership is composed of local business owners, concerned citizens, and other parties who are interested in improving the overall water quality of the Arroyo Colorado watershed.

The Rio Grande Valley is rich in history: the first skirmish of the Mexican War occurred at the Paso Real crossing on the banks of the Arroyo Colorado, on March 20, 1846. Future coordination with the Texas Historical Commission and other interested parties will determine any historic resources within recommended project areas and help understand any potential adverse effects.

Determinations

Statutory Determination	Guidance
1. The project improves the safety, efficiency, or reliability of the movement of goods through a port or intermodal connection to the port.	<p>The Port of Harlingen Resiliency and Asset Management Planning project will improve safety, efficiency, and reliability at the Port by evaluating existing conditions and planning for future improvements and growth opportunities.</p> <p>The Infrastructure Assessment is necessary to improve safety at the Port. This component will assess the existing condition of Port infrastructure to better understand critical repair/replacement needs as well as any potential infrastructure limitations to create a safer environment for workers.</p> <p>Updates to the Master Plan and the development of the Capital Improvements Plan will allow the Port to develop and prioritize recommended improvements to improve the efficient movement of goods through the Port and attract new tenants. The Master Plan update will review the mechanical and electrical systems and roadway network at the Port to develop a plan for making safety improvements. This plan will also include a fleeting area analysis, which will identify future locations for barge operators to tie off, as the current fleeting operation is unsafe and unreliable. This analysis will also improve efficiency as new fleeting areas will allow for improved movement through the channel. Analysis on the Port's rail infrastructure, which was identified as having deficiencies in the 2019 Master Plan, will update the understanding of existing conditions and establish what improvements are needed in the future to optimize this service.</p> <p>The Infrastructure Assessment, GIS Database, and CIP will allow the Port to manage and mitigate delays caused by maintenance by creating a procedure for routine maintenance and allowing the Port to schedule projects to avoid busy times. This plan will also improve reliability at the Port by ensuring that all infrastructure is in good working order to prevent delays caused by infrastructure failure and will allow Port staff to respond quickly to any damage or repair needs.</p>
2. The project is cost effective.	This project is a small project at a small port, so this determination is not applicable.
3. The eligible applicant has the authority to carry out the project.	The Port was created under the Texas Constitution Article XVI, Section 59 and governed under the Water Code, Chapter 62, providing the Port the authority to undertake the planning efforts included in this application.
4. The eligible applicant has sufficient funding	The total cost of the Port of Harlingen Resiliency and Asset Management Planning Project is estimated to be \$945,000, of which the Port requests \$708,750 (75%) from the 2024 PIDP program. The

available to meet the matching requirements.	Port is committed to contributing \$236,250 (25%) to the project costs. The Port has included a letter of funding commitment in this package to demonstrate that they are dedicated to meeting the match requirements for the program.
5. The project will be completed without unreasonable delay.	<p>The Port of Harlingen Resiliency and Asset Management Planning Project would begin as soon as funding is awarded and is estimated to be completed in May 2026. To ensure that the budget and schedule are met, the Project budget includes funds to contract with a grant administration and management firm to assist with compliance.</p> <p>In the event of inclement weather, the inspections for the infrastructure assessment may be delayed. However, there is adequate time within the schedule to absorb any possible delays, which are not anticipated due to the inspections being estimated to begin in the summer.</p>
6. The project cannot be easily and efficiently completed without Federal funding or financial assistance available to the project sponsor.	Due to recent costs to repair the damaged dock and the loss of a long-time tenant, the Port does not have the funds available to cover the costs of the scope outlined in this application without federal funding. If funding is not received, the Port would need to prioritize these components to decide where their limited funds would best be spent. For example, while the Port may be able to pull together funds to complete the infrastructure assessment, it would not be able to conduct the Design Level Assessment on all recommended assets. Other components of the project, such as market and trade lane analysis and development of a capital improvements plan, would be put off for an undetermined period of time, which would jeopardize both the economic and structural stability of the Port and lead to increases in project costs over time.