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EXECUTIVE SUMMARY
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AEC</td>
<td>Authorization of Entry for Construction</td>
</tr>
<tr>
<td>CAP</td>
<td>Continuing Authorities Program</td>
</tr>
<tr>
<td>DQC</td>
<td>District Quality Check</td>
</tr>
<tr>
<td>LER</td>
<td>Lands, Easements, Rights-of-way</td>
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<tr>
<td>LERRD</td>
<td>Lands, Easements, Rights-of-way, Relocations, and Disposals</td>
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<td>NFS</td>
<td>Non-Federal Sponsor</td>
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<tr>
<td>REP</td>
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<tr>
<td>RR</td>
<td>Railroad</td>
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<tr>
<td>PPA</td>
<td>Project Partnership Agreement</td>
</tr>
<tr>
<td>TR</td>
<td>Tract</td>
</tr>
<tr>
<td>USACE</td>
<td>U.S. Army Corps of Engineers</td>
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1 GENERAL BACKGROUND

This Real Estate Plan (REP) is the real estate work product of the U.S. Army Corps of Engineers (USACE), Galveston District, Real Estate Division and supports project plan formulation for the Mary Rhodes Pump Station, Bay City, Texas, Continuing Authorities Program (CAP), Section 14. A Real Estate Plan is prepared in support of a decision document for full-Federal or cost shared specifically authorized or continuing authority projects. It identifies and describes lands, easements, and rights-of-way (LER) required for the construction, operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) of a proposed project including requirements for mitigation, relocations, borrow material, and dredged or excavated material disposal. It also identifies and describes facility/utility relocations, LER value, and the acquisition process. The REP does not just cover LER to be acquired by the non-Federal sponsor (NFS) or Government. The report covers all LER needed for the project, including LER already owned by the NFS, Federal Government, other public entities, or subject to the navigation servitude.

2 PROJECT TYPE & PURPOSE

The City of Corpus Christi has dealt with significant streambank erosion along a portion of the Colorado River at the Mary Rhodes Pump Station. As such, infrastructure is being threatened and is need of repair within a reasonable time frame to prevent more erosion to occur. Under the USACE Continuing Authorities Program, the Galveston District of the Corps conducted a feasibility study to develop a plan to Protect Mary Rhodes Water Pump Station facilities from Colorado River erosion. The erosion has caused the bank to recede approximately 10-12 feet since 2014 and approximately 15 to 40 feet from the facility in various locations along the project area. In addition, power lines are in imminent danger of failure, as the erosion is already approaching the foundation of the power line poles. This decision document includes the assessment and evaluation of alternatives, and the selection of a plan from those alternatives that is technically sound, environmentally acceptable, economically feasible, and supported by the local sponsor and the Federal Government.

3 AUTHORITY

This project is authorized under the authority of the USACE Continuing Authorities Program, Section 14 of the Flood Control Act of 1946 (Public Law 79-526), as amended. This authority allows USACE to provide emergency streambank protection for public facilities and services.
4 PROJECT LOCATION

The City of Corpus Christi’s intake structure, also known as the Mary Rhodes Pump Station, is located along the Colorado River near Bay City, Matagorda County, Texas. Bay City, the County Seat of Matagorda County, is 78 miles west of Houston, TX and 183 miles east-southeast from San Antonio. The project is located along the portion of the streambank upstream of the Texas State Highway 35 Bridge, which crosses over the Colorado River west of Bay City in Matagorda County. (Figure 1)

5 NON-FEDERAL SPONSOR

The Non-Federal Sponsor (NFS) for this project is the City of Corpus Christi, Water Utilities Department. The City of Corpus Christi has the authority and capability to furnish lands, easements, and rights-of-way for this project. At the time of this report, this project falls between two parcels of land. One parcel is currently owned in fee by the non-federal sponsor and the either is owned by a private landowner and will need to be acquired prior to construction of the project.
6 SPONSOR NOTIFICATION OF RISK

A draft of the letter notifying the NFS of the risk in acquiring lands prior to the signing of the Project Partnership Agreement (PPA) is attached to this real estate plan as Exhibit A. This letter will be sent following the District Quality Check (DQC) milestone.

7 ASSESSMENT OF NON-FEDERAL SPONSOR REAL ESTATE ACQUISITION CAPABILITIES

A draft assessment of the Non-federal Sponsor’s capability to acquire the lands required for this project is attached to this real estate plan as Exhibit B. This assessment will be sent following the District Quality Check (DQC) milestone.

8 PROPOSED PROJECT ALTERNATIVES

The development and evaluation of alternatives reflected the magnitude and scope of a Section 14 study, in accordance with the guidelines outlined in ER 1105-2-100.

In the Federal Interest Determination, preliminary alternatives were developed for potential evaluation, as briefly described below. Additional alternatives may be developed as the feasibility study progresses.

- Alternative 1 – No Action
- Alternative 2 – Rebuild Bank Out
- Alternative 3 – Rebuild Bank Out and Bank Sloping
- Alternative 4 – Rebuild Bank, Bank Sloping and Slope Riprap
- Alternative 5—Rebuild Bank Out, Bank Sloping, and Toe Riprap
- Alternative 6—Rebuild Bank Out, Bank Sloping, Toe Riprap, and Slope Riprap
- Alternative 7—Bank Sloping, Slope Riprap, and Toe Riprap
- Alternative 8—Bank Sloping, Slope Riprap, Toe Riprap, Sheet Piles
- Alternative 9—Relocate Pump Station

8.1 Recommended Plan

- Alternative 5—Rebuild Bank Out, Bank Sloping, and Toe Riprap
  - Rebuilding the bank out, bank sloping and toe rip rap (longitudinal fill stone toe protection. The slope of this alternative will be set approximately at a 1.5: 1 max (H:V). A major feature of this alternative consists of riprap tiebacks embedded under the top of the bank at approximately every 500
feet along the project length. The terminal tiebacks (the first and last tiebacks) will be embedded 50 feet into the bank, whereas the tiebacks in-between will also be embedded 50 feet into the bank. Tieback thickness will consist of 3 feet of riprap. The initial toe protection will consist of longitudinal fill stone toe protection along the entire project length totaling approximately 2,630 feet. To address flanking, an additional 507 feet of toe protection was extended from 24+93 to 30+00 increasing the total protection length to 3,137 feet. The launching stone quantity will be approximately 14.7 tons per linear foot. The height from the bottom of the toe protection to the top of the tiebacks is approximately 44 feet.

Figure 2 Alternative 5

9 REAL ESTATE REQUIREMENTS

9.1 Existing Federally-Owned Real Estate
There are no USACE property interests within the City of Corpus Christi or in the project vicinity.
9.2 Existing NFS-Owned Real Estate

The City of Corpus Christi owns in fee the tract identified as Property ID 118025 and legal description AB 0014 THAS CAYCE, Tract 1, Acres 73.975, (TR INCLUDES PT OLD RR CORRIDOR- (4.9128 AC)) in the Matagorda County Appraisal District records. An Authorization of Entry for Construction (AEC) for the use of 0.28 acres for ingress/egress and 4.86 acres for staging, from the non-federal sponsor to the U.S. Army Corps of Engineers will need to be executed prior to construction award for this project.

Figure 3—NFS Owned Parcel, Pump Station, and Power Line in Project Area

9.3 New Real Estate Requirements

The City of Corpus Christi will need to acquire land on the eastern bank of the parcel immediately to the north of the pump station to accommodate tie-back placement. This
acquisition will consist of a fee acquisition of approximately 0.65 acres of land (a 50ft wide swath along the length of the project alignment) from the parcel currently identified by the Matagorda County Appraisal District as Property ID 11284 and legal description AB 0014, THAS CAYCE, ACRES 688.48.

Figure 4 Tie Back Buffer Zone Acquisition Area

9.4 Access/Staging Area

The project’s access and staging areas will be contained within the tract of land owned by the City of Corpus Christi. It is expected that project access, equipment storage, construction, operation, and maintenance would require the use of approximately 4.86 acres of the 73.975-acre property.
9.5 Mitigation

No compensatory mitigation is required for this project.

9.6 Summary

<table>
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<tr>
<th>Feature</th>
<th>Acreage</th>
<th>Estate/Instrument Required for Construction</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access—Ingress/Egress</td>
<td>0.28</td>
<td>AEC</td>
<td>NFS (fee owned)</td>
</tr>
</tbody>
</table>
Table 1 Real Estate Requirement Breakdown

| Staging Area A | 2.33 | AEC | NFS (fee owned) |
| Staging Area B | 2.53 | AEC | NFS (fee owned) |
| Tie Back Buffer Zone | 0.65 | Fee | Private Landowner |

10 BORROW MATERIAL

The NFS does not currently have any borrow areas available for use, however, they are participating in a dredging project in the timeframe of our projected construction work. It is currently estimated that the dredging will produce around 33.5k cubic yards of material. Whether this material will be suitable for use in our project in quality and vicinity will be determined at a later date. For planning purposes, the project delivery team assumes all borrow material will need to be secured from outside sources.

11 RECREATION FEATURES

There are no recreation features proposed for this project.

12 TIMBER RIGHTS AND MINERAL/ENERGY ACTIVITY

There is no known timber activity within the project area. No mineral exploration or production activity would be impacted by this project.

13 FACILITY/UTILITY/PIPELINE RELOCATIONS

As indicated by Texas Railroad Commission there are three pipelines within the vicinity of our project, as shown in Figure 6 below. Preliminary outreach to the utility owner to determine the precise location of these lines has begun, but at the time of this report we cannot definitively say if a relocation will be required for this project. Further research will be completed and this report will be updated accordingly at the DQC milestone.
ANY CONCLUSION OR CATEGORIZATION CONTAINED IN THIS REPORT THAT AN ITEM IS A UTILITY OR FACILITY RELOCATION TO BE PERFORMED IS PRELIMINARY ONLY. THE GOVERNMENT WILL MAKE A FINAL DETERMINATION OF THE RELOCATIONS NECESSARY FOR THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF THE PROJECT AFTER FURTHER ANALYSIS AND COMPLETION AND APPROVAL OF FINAL ATTORNEY’S OPINIONS OF COMPENSABILITY FOR EACH OF THE IMPACTED UTILITIES AND FACILITIES

14 ZONING
The proposed project is not affected by any zoning.

15 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE OR OTHER ENVIRONMENTAL CONTAMINANTS
There are no indications of possible site contamination or environmental concerns within the study area. No impact to this project is expected.

16 NAVIGATION SERVITUDE

Navigational Servitude will be invoked for this project. Navigation Servitude emanated from the Commerce Clause of the Constitution of the United States, Article I; Section 8, Clause 3. The servitude gives the Federal Government the right to use the “Navigable Waters” of the United States without compensation for navigation projects. These are non-transferable rights and are not considered interest in real property. The Colorado River is a navigable waterway. Any riprap placement under the ordinary high-water mark will be completed under Navigational Servitude.

17 INDUCED FLOODING

There will be no induced flooding resulting from the construction project.

18 ATTITUDES OF LANDOWNERS

This project impacts three landowners: a private landowner, the NFS, and the Colorado River Authority. As the proposed alternative is minimally impactive to the land, and will protect the private landowner from further erosion, it is believed they will be supportive of the project. The NFS is supportive of the chosen alternative. The Colorado River Authority will need to be coordinated with regarding construction interference within the river, but it is not anticipated that the project work will cause any grievances. To date, no public meetings have been held.

19 PUBLIC LAW 91-646 RELOCATIONS

There are no residential houses, businesses, or farms that would require relocation associated with PL 91-626.

20 BASELINE COST ESTIMATE FOR REAL ESTATE

The tract of land owned by the City of Corpus Christi is being protected by this project. Pursuant to ER 1105-2-100, the NFS will, therefore, not receive Lands, Easements, Right of Way, Relocation, and Disposal (LERRD) crediting for this parcel. However, the parcel to the north of the pump station that will require acquisition to accommodate the placement of tiebacks will be eligible for credit. The costs appearing in figure 7 below reflect the cost of acquiring the lands necessary to construct the project, administrative costs of coordinating with the NFS to confirm tract ownership and perform any reviews in relation to acquisition (including but not limited to appraisal and LERRD reviews).
## Mary Rhodes Pump Station Alternative Summary

### Real Estate

<table>
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<tr>
<th>Alternatives</th>
<th>Total Tracts Impacted</th>
<th>Total Acreage Impacted</th>
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<tr>
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<td>2</td>
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<th>Activity</th>
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<th>Amount</th>
<th>Utilities Impacted</th>
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<td>Acquisition Labor (60 hrs. x $125/hr per tract)</td>
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<td>$7,500.00</td>
<td>0</td>
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<tr>
<td>Project-Related Administration (80 hrs. x $125/hr)</td>
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<td>$20,000.00</td>
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<tr>
<td>Utility &amp; Pipeline Identification/Removal/Relocation,</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>0</td>
</tr>
<tr>
<td>Administrative Coordination Only ($3,000/pipeline)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>New Land Acquisition</td>
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<td>$1,748.07</td>
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</tr>
<tr>
<td>Previously Acquired Easement for LERRD Crediting Purposes</td>
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<td>$0.00</td>
<td></td>
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<tr>
<td>Appraisal ($3,000 per tract x 1 tract)</td>
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<td>LERRD Crediting Administrative Costs (5 hrs. x $125/hr per tract)</td>
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<td>Provide &amp; Review Title Ownership (50 hrs x $125/hr)</td>
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<td>Contingency (30%)</td>
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<tr>
<td>Non-Federal Total</td>
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<td>Review Acquisition Documents (10 hrs x $125/hr per tract)</td>
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<td>Project-Related Administration (80 hrs. x $125/hr)</td>
<td>$20,000.00</td>
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<td>Utility &amp; Pipeline Identification/Removal/Relocation,</td>
<td>$5,000.00</td>
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<tr>
<td>Administrative Coordination Only ($5,000/pipeline)</td>
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<tr>
<td>LERRD Crediting and Real Estate Certification (10 hrs x $150/hr)</td>
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<td>$29,000.00</td>
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<td>Contingency (30%)</td>
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<td>Federal Total</td>
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<td><strong>GRAND TOTAL (Non-Federal + Federal)</strong></td>
<td><strong>$100,584.99</strong></td>
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**Assumptions:**
- Three utility lines (electricity) on this parcel owned by AEP Texas Central will NOT be relocated.
- Impact to existing stream bank erosion along 2,400 feet of the river-side of the pump station.
- Any necessary borrow material will be commercially sourced, no LERRD crediting required.
- Any pipelines intersecting with placement plan will not require relocation.
- Additional lands for mitigation will not be required.

**Figure 7-Baseline Cost Estimate for Real Estate**
Exhibit A – Non-Federal Sponsor Notification of Risks

Dear Mr./Ms. NFS Contact Last Name:

The intent of this letter is to formally advise NFS, as potential Non-Federal Sponsor for the proposed project, of the risks associated with land acquisition prior to the execution of a Project Partnership Agreement (PPA)/Cooperation Agreement (CA) or prior to the Government’s formal notice to proceed with acquisition. If a Non-Federal Sponsor deems it necessary to commence acquisition prior to an executed PPA/CA for whatever reason, the Non-Federal Sponsor assumes full and sole responsibility for any and all costs, responsibility, or liability arising out of the acquisition effort.

Generally, these risks include, but may be not be limited to, the following:

(1) Congress may not appropriate funds to construct the proposed project;

(2) The proposed project may otherwise not be funded or approved for construction;

(3) A PPA/CA mutually agreeable to the Non-Federal Sponsor and the Government may not be executed and implemented;

(4) The Non-Federal Sponsor may incur liability and expense by virtue of its ownership of contaminated lands, or interests therein, whether such liability should arise out of local, state, or Federal laws or regulations including liability arising out of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended;

(5) The Non-Federal Sponsor may acquire interests or estates that are later determined by the Government to be inappropriate, insufficient, or otherwise not required for the project;

(6) The Non-Federal Sponsor may initially acquire insufficient or excessive real property acreage which may result in additional negotiations and/or benefit payments under P.L. 91-646 as well as the payment of additional fair market value to affected landowners which could have been avoided by delaying acquisition until after PPA/CA execution and the Government’s notice to commence.
acquisition and performance of providing lands, easements, rights-of-way, relocations, and disposals (LERRD);

(7) The Non-Federal Sponsor may incur costs or expenses in connection with its decision to acquire or perform LERRD in advance of the executed PPA/CA and the Government's notice to proceed which may not be creditable under the provisions of Public Law 99-662 or the PCA as referenced in ER 405-1-12 (Change 31; 1 May 98) Section 12-31 Acquisition Prior to PCA Execution.

Please acknowledge that the Non-Federal Sponsor for the proposed project has been notified and accepts these terms and conditions.

For any questions, please contact Realty Specialist Name, Realty Specialist within the USACE Galveston District Real Estate Division, at E-mail@usace.army.mil or 409-766-XXXX

Accepted on behalf of the Non-Federal Sponsor:

________________________ (Signature)

________________________ (Title)

Prepared by:

________________________
Timothy Nelson
Chief, Real Estate Division
Galveston District
U.S. Army Corps of Engineers
Exhibit B—Assessment of Non-Federal Sponsor’s Real Estate Acquisition Capabilities

PROJECT NAME
NAME OF NON-FEDERAL SPONSOR – NON FEDERAL SPONSOR

ASSESSMENT OF NON-FEDERAL SPONSOR’S REAL ESTATE ACQUISITION CAPABILITY

I. Legal Authority:
   a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? (yes/no)

   b. Does the sponsor have the power of eminent domain for this project? (yes/no)

   c. Does the sponsor have “quick-take” authority for this project? (yes/no)

   d. Are any of the lands/interests in land required for the project located outside the sponsor’s political boundary? (yes/no)

   e. Are any of the lands/interests in lands required for the project unable to be condemned by the sponsor? (yes/no)

II. Human Resource Requirements:
   a. Will the sponsor’s in-house staff require training to become familiar with the real estate requirements of Federal projects including Public Law 91-646 (Home Relocation Assistance), as amended? (yes/no)

   b. If the answer to II.a is “yes,” has a reasonable plan been developed to provide such training? (yes/no)
c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? (yes/no)

d. Is the sponsor's projected in-house staffing level sufficient considering its other workload, if any, and the project schedule? (yes/no)

e. Can the sponsor obtain contractor support, if required in a timely fashion? (yes/no)

f. Will the sponsor likely request USACE assistance in acquiring real estate? (yes/no) (If “yes,” provide description)

III. Other Project Variables:
   a. Will the sponsor's staff be located within reasonable proximity to the project site? (yes/no)

   b. Has the sponsor approved the project/real estate schedule/milestones? (yes/no)

IV. Overall Assessment:
   a. Has the sponsor performed satisfactorily on other USACE projects? (yes/no/not applicable)

   b. With regard to this project, the sponsor is anticipated to be: highly capable/fully capable/moderately capable/marginally capable/insufficiently capable. (If sponsor is believed to be “insufficiently capable,” provide explanation)

V. Coordination:
   a. Has this assessment been coordinated with the sponsor? (yes/no)
b. Does the sponsor concur with this assessment? (yes/no)

Accepted by the Non-Federal Sponsor:

(Signature)

>Title)

(Date)

Prepared by:

NAME OF REALTY SPECIALIST
Realty Specialist
Real Estate Division
Galveston District
US Army Corps of Engineers

Reviewed by:

BRIAN MURPHY
Branch Chief, Support Services Branch
Real Estate Division
Galveston District
US Army Corps of Engineers

Approved by:

TIMOTHY J. NELSON
Chief, Real Estate Division
Galveston District
US Army Corps of Engineers