



STATE EXPENDITURE PLAN TEXAS - AMENDMENT #1 - 2020



Submitted by: Toby Baker, Executive Director
Texas Commission on Environmental Quality



Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 3, 2020

Mr. Ben Scaggs, Executive Director
RESTORE Council
500 Poydras Street, Suite #1117
New Orleans, Louisiana 70113

Dear Mr. Scaggs,

As Texas Governor Greg Abbott's designee responsible for implementation of the RESTORE Act in Texas I am submitting Amendment 1 (2020) to Texas' State Expenditure Plan (TxSEP), approved in 2019.

The requirement to submit a TxSEP and my authority to submit it on behalf of the Governor of Texas is authorized under Section 2, 33 U.S.C., section 1321(t)(3)(B)(iii) of the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE).

I certify that the TxSEP has been prepared in accordance with the requirements outlined in the *Oil Spill Impact Component: State Expenditure Plan Guidelines*, along with the Updated (2016) Comprehensive Plan.

Our point of contact for the TxSEP is:

Diane Mazuca, Senior Advisory for Policy & Development
Office of Legal Services/Texas Commission on Environmental Quality
diane.mazuca@tceq.texas.gov
512.422.3852

I want to express my thanks for the assistance your staff has provided in preparing this document. We appreciate your consideration and are available to respond to any questions.

Respectfully,

A handwritten signature in black ink, appearing to read "Toby Baker".

Toby Baker
Executive Director

TEXAS STATE EXPENDITURE PLAN

Submitted Pursuant to the
Spill Impact Component of the RESTORE Act
33 U.S.C § 1321(t)(3)

Table of Contents

Introduction.....	1
I. State Certification.....	6
II. Public Participation Statement	7
III. Financial Integrity.....	8
IV. Consistency with Goals and Objectives of the Comprehensive Plan.....	11
V. Proposed Projects, Programs and Activities	12
Appendix A: Nature-Based Tourism.....	13
Appendix B: Removal of Debris and/or Associated Sediment from Creeks, Bayous and Other Waterways to Improve Water Quality	17
Appendix C: Restoration: Water Quality and Quantity.....	22
Appendix D: Shoreline and Beach Restoration	27

State of Texas

State Expenditure Plan

Introduction of the Oil Spill Impact Component (Bucket 3)

The RESTORE Act dedicates 80% of any civil and administrative penalties paid under the Clean Water Act by responsible parties in connection with the Deepwater Horizon oil spill to the Gulf Coast Ecosystem Trust Fund for ecosystem restoration, economic recovery, and tourism promotion in the Gulf Coast Region.

The eligible activities for the Oil Spill Impact Component cover both ecological and economic activities. The RESTORE Act defines eligible activities for which the Oil Spill Impact Component funds may be used. The eligible activities, projects and programs as defined in the 31 C.F.R. §34.203 are:

1. Restoration and protection of the natural resources, ecosystem, fisheries, marine and wildlife habitats, beaches and coastal wetlands of the Gulf Coast Region;
2. Mitigation of damage to fish, wildlife, and natural resources;
3. Implementation of a federally-approved marine, coastal or comprehensive conservation management plan, including fisheries monitoring;
4. Workforce development and job creation;
5. Improvements to or on state parks located in coastal areas affected by the Deepwater Horizon Oil Spill;
6. Infrastructure projects benefitting the economy or ecological resources, including port infrastructure;
7. Coastal flood protection and related infrastructure;
8. Planning Assistance;
9. Administrative costs;
10. Promotion of Tourism in the Gulf Coast Region, including promotion of recreational fishing; and
11. Promotion of the consumption of seafood harvested from the Gulf Coast Region.

Amendment #1 (2020) to TCEQ's 2019 approved State Expenditure Plan (SEP) is making changes to the amount of funds for three of the four programmatic areas.

There is one change from the draft Texas SEP amendment #1 posted for public comment and the final version submitted to the RESTORE Council for approval. That change involves the amount of funds that will be available in this amended SEP for the Shoreline and Beach Restoration program. The amount in the posted amendment #1 of \$23,490,000 has been increased by \$190,000 for a new program total of \$23,680,000. TCEQ will use these additional funds to help support its management and oversight activities of the Shoreline and Beach Restoration program. The scope of work for this program is unchanged and remains as stated in the amendment #1 posted for public comment.

Since several potential projects in two of the programs, Removal of Debris and Restoration of Water Quality & Quantity, have already been funded, the amounts in the amendment for those two programs will be \$0. These programs will remain in the SEP to provide flexibility and enhance any opportunity for future funding consideration, in response to changes in need, readiness and priorities.

Designated State Entity

The State of Texas, Office of the Governor (OOG), is the entity designated under the Oil Spill Impact Component of the RESTORE Act to develop the required State Expenditure Plan. The Office of the Governor appointed Toby Baker, of the Texas Commission on Environmental Quality (TCEQ), as his appointee.

Total Amount of State Expenditure Plan (SEP) Funding to Texas

\$121.5 Million, 7.58% of 30% RESTORE Bucket 3 allocation, pursuant to 40 CFR Part 1800, under the Oil Spill Restoration Impact Allocation Component of the RESTORE Act.

This Texas SEP Allocation

\$31,510,000

Time Period for this Texas SEP

March 1, 2019 - February 28, 2024

Project Selection

SEP ↓	<ul style="list-style-type: none">• Draft SEP is completed and published for public comment• Public comments are reviewed as appropriate incorporated into final SEP• Final SEP is submitted to Council• SEP is reviewed by Council chair and approved
Application ↓	<ul style="list-style-type: none">• TCEQ submits applications to Council for each of the programmatic areas in approved SEP• Grants are awarded for each programmatic area
Project Selection ↓	<ul style="list-style-type: none">• Baker in consultation with the OOG select projects for each programmatic area that have been solicited by the Commission to Rebuild Texas (CRT)• CRT developed a list of projects submitted by a cross section of elected officials in the Hurricane Harvey affected areas
Work Plans ↓	<ul style="list-style-type: none">• Work plans are developed for selected projects in each programmatic area• Projects are submitted to Council for review and approval• TCEQ executes contracts for each project to commence
Project Monitoring ↓	<ul style="list-style-type: none">• TCEQ administers projects and oversees compliance monitoring
Project Performance	<ul style="list-style-type: none">• Project and programmatic success and outcomes are reported to RESTORE Council

Role of TCEQ and Commission to Rebuild Texas (CRT)

TCEQ, along with CRT and the OOG, assisted in the development of the SEP.

- In September 2017 an e-mail was sent on behalf of the Governor's Commission to Rebuild Texas (CRT), reaching out to entities affected by Hurricane Harvey. Specifically, the request was to assist in compiling information to assist CRT's efforts to quantify Texas' needs for Governor Abbott. The request was to assist in:
 - assessing and identifying rebuilding needs; and
 - identifying needed projects, as well as an estimated cost to complete those projects.
- The e-mail included a spreadsheet to be completed and submitted to CRT. There was an initial September 29, 2017 deadline to submit the spreadsheet with the requested project list and information. That date was extended several times with the last submission received by CRT in early January 2018.
- The e-mail was sent to a cross section of entities such as, but not limited to: cities; counties; navigation districts; school districts; levy districts; and Home Owners Associations.
- The state's County Extension Agents located in the damaged communities were asked to assist in notifying entities of CRT's effort to compile a list of projects needed to address the damage inflicted by Hurricane Harvey. Numerous e-mail reminders were sent to the identified entities.
- In some instances, the entity contacted held meetings with the public to assist in developing the information to complete the spreadsheet.
- Over 2,600 projects were received by CRT and placed in their database.
- CRT staff reviewed their database to develop a master list of projects that met the

criteria set out in Texas' draft State Expenditure Plan (SEP) and therefore could potentially use funding from RESTORE Bucket 3 grant funds.

- That master list consists of 92 projects that meet the following eligibility requirements listed in the draft Texas SEP and defined in 31 CFR § 34.503:
 - Location – a RESTORE eligible county and the county was included in the disaster declaration for Hurricane Harvey (14 counties).
 - Addresses, as a primary eligible activity, one of the four programmatic areas listed in the draft SEP:
 - Nature-Based Tourism;
 - Shoreline and Beach Restoration;
 - Removal of Debris; and
 - Restoration: Water Quality and Quantity.
 - Entity is eligible to receive a direct grant award from TCEQ as listed in the draft SEP:
 - state agency;
 - city;
 - county; and
 - navigation district.

TCEQ, along with CRT and the Office of the Governor (OOG), will assist in the implementation of the SEP

- TCEQ Executive Director and RESTORE Council member Toby Baker will work collaboratively with staff from the OOG, as well as representatives from the CRT, to select projects from the CRT-provided master list that will move forward for consideration for RESTORE Bucket 3 grant funds.

- Discussions on the selection of the projects will focus on need, ability to leverage other funds, resource challenges to complete the projects as well as assurance that all projects are consistent with the RESTORE Act and RESTORE Council's Comprehensive Plan goals and objectives.
- Following the approval of the Texas SEP and the federal award of grants for the programmatic areas addressed in the SEP, work plans for the selected projects will be submitted to the Council for approval.
 - In compliance with 31 CFR §34.503 each work plan activity will include a narrative description and include the following:
 - The need, purpose, and objectives of the activity;
 - How the activity is eligible for funding and meets all requirements of §34.203 and §34.503;
 - Location of the activity;
 - Budget for the activity;
 - Milestones for the activity;
 - Projected completion dates for the activity;
 - Criteria used to evaluate the success of the activity in to assist in restoring and protecting the Gulf coast region;
 - Leveraged funds from other sources, how much and the current status of these funds;
 - How the activity contributes to the overall economic and ecological recovery of the Gulf coast; and
 - How the activity is based on the Best Available Science.
- Notification of projects that have been submitted for funding under each of the programmatic areas will be posted on the Texas [RESTORE website](#).

TCEQ will administer the program and provide project oversight. SEP amendments may be written as additional funding becomes available and/or restoration priorities change.

Section 1: State Certification

I hereby certify that the Texas State Expenditure Plan (SEP), amendment 1 (2020) takes into consideration the Council's 2016 Comprehensive Plan and is consistent with the goals and objectives of the current Comprehensive Plan adopted by the Council in December 2016. All program components and activities included in the SEP, amendment 1 (2020), are eligible activities as defined by the RESTORE Act and contribute to the overall economic and ecological recovery of the Gulf Coast. As was the focus of the 2019 approved SEP, amendment 1 (2020) continues to address the effects of Hurricane Harvey, focusing on hurricane recovery, ecological and economic, as well as resiliency-related programs eligible under the Oil Spill Impact Component of the RESTORE Act (Bucket 3). The programmatic areas were developed in consultation with the Office of the Governor (OOG), as well as the Commission to Restore Texas (CRT) established by the Governor to oversee the state's response to Hurricane Harvey. Each programmatic area meets the eligibility requirements for the SEP and have demonstrated primary and secondary purposes for projects that may be selected for the programmatic areas and detail how each of the programmatic areas meet the relevant goals and objectives. Projects that will be chosen for each programmatic area will be selected based on compliance with these same eligibility criteria, goals and objectives. Upon approval of the SEP amendment 1 (2020), the selection of projects to implement the programmatic areas will be based on discussions with the CRT and OOG. The Texas programmatic SEP will further a comprehensive, collaborative, ecological and economic recovery for those areas affected by Hurricane Harvey.

I also hereby certify that any issues crossing Gulf State boundaries have been evaluated to ensure that a comprehensive collaborative ecological and economic recovery is furthered by the State Expenditure Plan; that all projects, programs and activities will be based on the Best Available Science (BAS) as defined in the RESTORE Act, as part of the project grant process; that the SEP has incorporated the public participation process and considered all input received from the public comment process; that the SEP meets the requirement of the SEP Guidelines, and that the projects to be selected for the programmatic areas meet the 25% infrastructure limitation.

Signature of Authorized Senior Official



Toby Baker

Executive Director
Texas Commission on Environmental Quality

June 3, 2020

Date

Section II. Public Participation Statement

In accordance with 31 CFR § 34.503(g), the draft Texas State Expenditure Plan (SEP) was posted for a 45-day public comment period on the Texas [RESTORE website](#) and notification was sent to those who have signed up to receive updates on that web site. In addition, a press statement was released to media outlets in the eligible areas. Letters were sent to elected officials representing the eligible areas, as well as the state elected Leadership. Baker shared information as he performed his public duties as the Governor's appointee to the RESTORE Council.

Updates on activities related to the development and now publication of the draft SEP, including the administrative update submitted to the Council in December 2017, were posted on the Texas [RESTORE website](#). With the posting of the draft SEP, the public had an opportunity to comment on the Texas programmatic SEP that has been developed to address the devastating and long-range effects of Hurricane Harvey. A total of seven comments were received. Commissioner Baker, in consultation with Governor Abbott and the Governor-established Commission to Rebuild Texas (CRT), considered comments received prior to finalizing the SEP for submission.

Texas SEP, Amendment #1 (2020) was posted for public comment on the RESTORE website beginning April 14, 2020. One comment was received by the close of the comment period, May 29, 2020. The comment, from the Mayor of Corpus Christi, Texas, was supportive of the amendment's proposal to transfer Bucket 3/SEP funds from two of the program areas in the 2019 approved into another program, also in the 2019 approved SEP, Shoreline and Beach Restoration.

Public participation timeline

- On April 14, 2020, the draft of the Texas SEP amendment #1 (2020) was posted on the RESTORE website for public comment through May 29, 2020.
- In September 2017 an e-mail was sent on behalf of the CRT, reaching out to entities affected by Hurricane Harvey. Specifically, the request was to assist in compiling information to assist CRT's efforts to quantify Texas' needs for Governor Abbott. The request was to assist in:
 - assessing and identifying rebuilding needs; and
 - identifying needed projects, as well as an estimated cost to complete those projects.
- The e-mail included a spreadsheet to be completed and submitted to CRT. There was an initial September 29, 2017 deadline to submit the spreadsheet with the requested project list and information. That date was extended several times with the last submission received by CRT in early January 2018.
- The e-mail was sent to a cross section of entities such as, but not limited to: cities; counties; navigation districts; school districts; levy districts; and Home Owners Associations.
- The state's County Extension Agents located in the damaged communities were asked to assist in notifying entities of CRT's effort to compile a list of projects needed to address the damage inflicted by Hurricane Harvey. Numerous e-mail reminders were sent to the identified entities.
- In some instances, the entities contact held meetings with the public to assist in developing the information to complete the spreadsheet.
- Over 2,600 projects were received by CRT and placed in their database.
- CRT staff reviewed their database to develop a master list of projects that met the criteria set out in Texas' draft State Expenditure Plan (SEP) and therefore, could potentially use funding from RESTORE Bucket 3 grant funds.

Section III. Financial Integrity

Toby Baker, Texas Governor's appointee to the RESTORE Council, and TCEQ are committed to maintaining the highest level of fiscal accountability and transparency to assure the public and Congress that funds have been managed appropriately to further the purposes of the RESTORE Act. TCEQ has systems, policies and processes in place for each aspect of fiscal management. In addition, in June 2018 TCEQ submitted to the U.S. Treasury Department the required 2018 Operational Self-Assessment (OSA). The OSA includes all financial management information required as part of the RESTORE Bucket 3, section 3 of the SEP application and was prepared in accordance to the U.S. Treasury's RESTORE Act guidance requiring that all eligible entities under the Direct Component and the Centers of Excellence Research Grants Program complete an OSA prior to receiving funding and once a year thereafter. The OSA focuses on operational internal control areas and will be used, in part, to assist determining an appropriate compliance monitoring protocol. The OSA requires responses and documentation to show how the agency manages finances, subrecipient management and monitoring, audits, operational and general administrative management and property management.

Internal controls including written policies, procedures, processes, systems and reporting, exist within TCEQ and meet the Standards for Internal Control in the Federal Government (GAO-14-704G) issued by the U.S. Government Accountability Office ("Green Book"), the RESTORE Council's Financial Assistance Standard Terms and Conditions, and Title 2 Code of Federal Regulations (CFR) Part 200 Uniform Administrative Requirement, Cost Principles and Audit Requirements for Federal Awards. Examples of compliance are detailed below.

Control Environment and Activities

Internal financial controls included in the TCEQ Operating Policies and Procedures detail compliance procedures and employee roles for Procurement and Contracts, Employee Ethics, Guides for Administrative Procedures and General Procedures.

TCEQ staff are encouraged to take TCEQ Grants Management training towards a certification to assist in understanding all of the agency grant- related processes. TCEQ uses an electronic financial system called the Budget, Accounting and Monitoring System (BAMS) where all financial information is entered and housed on invoicing and payments including a check and audit review for every invoice and supporting documentation submitted for payment.

TCEQ also uses an electronic grants management system for routing proposals, applications, amendments, submitting applications, documenting work plans and approving budgets for submission to RESTORE Council staff.

TCEQ incorporates the RESTORE Standard Terms and Conditions into all subrecipient contracts to ensure compliance with 2 CFR 200 and adds additional requirements as necessary or as a result of the risk assessment determinations conducted on each project subrecipient. In addition, Conflict of Interest documentation is included as necessary in subrecipient grant contracts to require the reporting of any actual, apparent, or potential conflicts of interest to assure the agency that there is not a conflict of interest and provide details on what would constitute a conflict.

To prevent conflicts of interest as required by the SEP Guidelines and the Treasury regulations, the TCEQ adheres to the process established in its "Policy to Safeguard Against Conflicts of Interest" document. The agency's "Policy to Safeguard Against Conflicts of Interest" document is incorporated herein by reference. A copy of that document is available from TCEQ upon request. The following is included in the document: "All persons involved in the preparation of RESTORE materials for the State, or in the review and selection of RESTORE awardees, or in the management of grants and contracts funded by or related to RESTORE, must act in the public interest. All such persons should endeavor to pursue a course of conduct that does not raise suspicion among the public. Therefore, they shall avoid acts that are improper or give the appearance of impropriety."

In addition to the above referenced document, TCEQ is governed by the following related Texas State Statutes: Texas Government Code, Chapter 553 [Public Disclosure]; Chapter 572 [Personal Financial Disclosure, Standards of Conduct and Conflict of Interest] including sections 572.01 and 572.051; Chapter 2113 [Use of Appropriated Money]; Chapter 2155 [Purchasing; General Rules and Procedures]; and Chapter 2261 [State Contracting Standards and Oversight], including section 2261.252.

Risk Assessment

Risk Assessments are conducted on subrecipients for each project. These assessments identify, analyze and determine monitoring levels needed to achieve the state's goals and objectives for RESTORE Act projects. Identified risks and likelihood of occurrence are considered.

Identification of workforce compliance, review of financial reports, grant performance history, State of Texas standing with the Texas Comptroller of Public Accounts, 2 CFR 200 requirements, and training certifications in 2 CFR 200 are evaluated. Yearly financial status reports are required. Reports are reviewed by an agency Grant Committee to determine relevance of findings if any, are incorporated to ensure compliance. Reports of grant compliance are submitted to the Texas Comptroller of Public Accounts office for inclusion into a state database for reference to others.

The TCEQ established process includes determining probable risks associated with any potential subrecipient receiving a grant award under the RESTORE program. TCEQ's process related to monitoring and managing subrecipients is consistent with the requirements in 2 CFR 200.

Prior to submitting a federal application, TCEQ RESTORE program staff completes a Risk Assessment form to determine any risks associated with a potential subrecipient. This completed form is submitted to the TCEQ's Procurement and Contracts section of the Financial Administration Division at the Office of Administrative Services.

The TCEQ RESTORE program staff also completes an Initial Risk Determination form for each potential subrecipient to determine if the potential subrecipient is low risk. Based on the completion of this form, and the gathering of information from the subrecipient's grant history and the Grant Committee review of financial statements, if the RESTORE program staff determines that the potential subrecipient is low risk, the risk assessment is concluded.

However, if the RESTORE program staff determines that the potential subrecipient is not low risk, the following actions can be made in consultation with a TCEQ Procurement and Contracts section and agency Contract Attorneys:

- An award should not be made;
- No further action needed;
- Request more information; or
- Determine that specific items will need to be addressed in the contract between TCEQ and the subrecipient. Some of the items could include additional monitoring and reporting requirements, increased frequency of meetings between the subrecipient and the RESTORE program staff, and an increase in the number of site visits.

All information compiled from the Risk Assessment process is maintained in the appropriate application file folders.

Communication and Information

The BAMS systems allows for the adequate processes and procedures to ensure that the agency has relevant, valid and auditable information as well as appropriate levels of communication. In addition, Procedure Manuals have been developed and are a living document for the TCEQ

RESTORE Program to ensure clear direction and procedures from the beginning to the end of a program and/or project.

Monitoring

Monitoring is part of the TCEQ RESTORE Procedure Manuals and is included in the subrecipient contracts. TCEQ Monitoring for RESTORE includes quarterly progress reports, monthly financial reports with or without invoices, weekly communication with subrecipients, weekly communication within the RESTORE Program staff to provide updates and discuss potential issues as they may arise. Reports are also provided on a semi-annual basis to the RESTORE Council providing financial spending and annually for performance. Any deviation or issues, both positive or negative are reported the RESTORE Council staff as they occur.

Section IV. Consistency with Goals and Objectives

The Texas SEP is consistent with the eligibility requirements in the federal RESTORE Act. The RESTORE Act outlines programs and projects eligible to receive Oil Spill Impact Component (Bucket 3) grant funds. To that end, Texas had developed four programmatic areas for this SEP. The programmatic areas comply with the eligibility requirements in the Oil Spill Component of the RESTORE Act (33 U.S.C., section 1321(t)(1)(B)(i)(III) and the Council's Comprehensive Plan, revised in December 2016. These programmatic areas are consistent with the following goals and objectives:

Goals

- Goal 2: Restore Water Quality
- Goal 3: Replenish and Protect Living Coastal and Marine Resources
- Goal 4: Enhance Community Resilience
- Goal 5: Restore and Revitalize the Gulf Economy

Objectives

- Objective 2: Restore, Improve and Protect Water Resources
- Objective 4: Restore and Enhance Natural Processes and Shoreline;
- Objective 5: Promote Community Resilience
- Objective 6: Promote Natural Stewardship and Environmental Education

The four programmatic areas meet the eligibility requirements for the SEP by demonstrating primary and secondary purposes for activities that may be selected for the programmatic areas and detailing how the programmatic areas meet the relevant goals and objectives for each. Activities that will be selected for each programmatic area will only be selected based on compliance with these same eligibility criteria, goals and objectives.

Upon approval by the Council of the Texas SEP, specific projects consistent with those programs will be selected by Baker in consultation with the OOG and the CRT.

Section V. Proposed Programmatic Areas in SEP

See the attached appendices for details.

- Appendix A: Nature-Based Tourism
- Appendix B: Removal of Debris and/or Associated Sediment from Creeks, Bayous, and Other Waterways to Improve Water Quality
- Appendix C: Restoration: Water Quality and Quantity
- Appendix D: Shoreline and Beach Restoration

V.

Texas State Expenditure Plan							
Applicant Name:		Toby Baker, Commissioner, Texas Commission on Environmental Quality					
	Program Title	Estimated Cost	Infrastructure (yes/no)	Start Date	End Date	Primary Eligible Activity [number(s) 1-11; see section 4.1.1 of Submittal Guidelines]	Informed by Best Available Science (yes/no)
A	Nature-Based Tourism	\$7,830,000	No	09/01/18	02/28/24	10	Yes
B	Removal of Debris and/or Associated Sediment from Creeks Bayous and Other Waterways	\$0	No	09/01/18	02/28/24	2	Yes
C	Water Quality and Quantity	\$0	No	09/01/18	02/28/24	1	Yes
D	Shoreline and Beach Restoration	\$23,680,000	No	09/01/18	02/28/24	1	Yes
	ESTIMATED TOTAL FUNDING CONTRIBUTIONS FOR PROGRAMS	\$31,510,000					

Appendix A: Nature-Based Tourism

1. Program: Nature-Based Tourism

A. Description/Summary

This proposed program will support the promotion of tourism in the Gulf Coast region. Working with Governor Abbott's Commission to Rebuild Texas (CRT), the program will identify projects that will provide nature-based tourism and restoration benefits to the local community while providing environmental and ecosystem education and recreation that will encourage action toward a healthier coast.

Activities within this program will focus on providing nature-based tourism educational exhibits, repairing public facilities and conducting debris clean-up to rebuild nature-based tourism. Projects selected under this program may include the restoration of piers, docks, bird viewing towers, eco-tourism, as well as the development of public marinas, boat ramps and park amenities. These projects will benefit both the environment and economy by protecting natural resources in the affected areas, resulting in a positive impact to nature-based tourism

Need

Hurricane recovery has become a priority as a response to the devastating impacts of Hurricane Harvey which hit the Texas coast on August 25, 2017. As nature-based tourism is one of the largest economic drivers for Texas coastal communities, the rebuilding of tourism is imperative to improving the economy while benefiting the environment. Parks have been severely, and in many cases, completely demolished. Access for recreational fishing has been limited due to destruction of piers, public access points, boat ramps and floating and fixed docks. Where historically birders travel every year to visit the habitat and viewing places have been destroyed. Critical habitat land, birding towers, kiosks, boat ramps, nature trails, pavilions and recreational amenities that usually support the economy of coastal towns are no longer thriving and the need for a robust tourist economy is essential to these coastal communities.

Purpose/Objective

The purpose and objective of this program is to identify and address nature-based tourism needs in the areas where hurricane impacts have negatively affected this once thriving industry. There is a significant need to repair or replace nature-based tourism areas to restore and revitalize the economy and to protect natural resources along the coast.

Location

The selected programs and projects will be conducted in counties that are eligible to receive RESTORE funds and are included in the Hurricane Harvey federal Disaster Declaration for Texas. The counties eligible to receive funds for this program include: Aransas, Brazoria, Calhoun, Chambers, Galveston, Harris, Jackson, Jefferson, Matagorda, Nueces, Orange, Refugio, San Patricio and Victoria.

Timeline

Work on this program will begin March 1, 2019 and will end on February 27, 2024. The program will be administered by TCEQ. Components of individual projects within the program will be implemented by eligible subrecipients.

Additional Information/Eligible Applicants

The following entities are eligible

- State Agencies
- Political Subdivisions:
 - City
 - County
 - Navigation Districts
- Public Institutions of Higher Education

B. Focus

The Nature-Based Tourism programmatic area, and the projects that will be implemented under this program, will focus on the overall economy of the Texas coast. This program will provide funds for projects that will promote tourism, thereby benefiting the overall economy. This program and the implemented projects will address environmental and ecological considerations.

2. RESTORE Act Eligibility

The primary eligible activity for the proposed activities is Promotion of Tourism in the Gulf Coast region, including recreational fishing. Texas will work with Governor Abbott's CRT to identify projects that address this eligible activity. This program and all projects identified for implementation will address nature-based tourism needs and comply with the eligibility requirements in the Oil Spill Component of the RESTORE Act 33 U.S.C., section 1321(t)(3)(B) and the Council's Comprehensive Plan.

3. Comprehensive Plan Goals and Objectives

This program aligns with the Comprehensive Plan's Goal #5 to Restore and Revitalize the Gulf Economy. The program supports the Objective #6 to Promote Natural Stewardship and Environmental Education.

4. Major Milestones

- A. Based on approved State Expenditure Plan (SEP), develop and submit federal application to the RESTORE Council for programmatic area.
- B. Receive grant award from the Council.
- C. Working with CRT, identify projects to be funded through the programmatic area grant award.
- D. Select projects in consultation with the Office of the Governor (OOG).
- E. Develop and submit work plans for identified projects within programmatic area grant.
- F. Receive project approval from RESTORE Council.
- G. Develop grant contracts with project recipients that include activities such as reporting and monitoring requirements, as well as deliverables and timelines.
- H. TCEQ management and oversight of all projects work plans, including compliance with all federal and state grant requirements and evaluation of the programmatic area to measure and convey the success and outcomes at a programmatic level in helping to restore and protect the Gulf Coast region.
- I. Project-related information will be posted on the Texas RESTORE web site.

5. Success Criteria/Metrics/Outcome:

Additional anticipated success criteria and outcomes will be based on the specifics appropriate to each implemented project and general success criteria and outcomes include:

Outcome: Enhanced public access to natural resources for recreational use.

Anticipated Project Success Criteria: The number of recreational access areas restored or developed

Outcome: Increase in visitors to the local community

Anticipated Project Success Criteria: Increase in hotel/motel occupancy

Outcome: Increase in environmental awareness in the community

Anticipated Project Success Criteria: Number of people reached through environmental activities or publications

6. Monitoring and Evaluation

All implemented projects will be monitored by the success criteria described in this appendix for their effectiveness in improving the economy through the rehabilitation, repair and/or replacement of nature-based tourism areas. Future work plans for individual projects will include the mechanisms subrecipients will employ to monitor individual project outcomes.

7. Best Available Science

Outstanding fishing, birding and waterfowl hunting opportunities, as well as family outings to the beach, make the coast the second most popular tourist destination in Texas, keeping the economy strong and creating jobs for both coastal residents and inland workers. Tourists visiting the Texas coast in 2014 spent \$19.7 billion traveling in this region, over \$10.4 million at hotels and motels alone. The Texas coast hosts hundreds of miles of nature tourism opportunities. Through conservation management and nature tourism, coastal communities gain economically while protecting their valued coastal resources. An excellent example of nature tourism, or avitourism, is the Great Texas Coastal Birding Trail, the largest nature trail in the nation, with over 300 birding sites available along the Texas Coast.¹

In a study done in 2013, more than 3,000 fish species have been identified on the Texas coastline. Tourists spend more than \$7.5 billion annually for beaches, bird watching, and fishing². Wildlife tourism generates over \$19 billion in annual spending in the Gulf coast. Recreational fishing counts for the largest share with wildlife watching and hunting following respectively. Texas alone generates over \$5 billion in wildlife tourism.³

Associated best available science will be used to develop each of the project workplans and will be implemented throughout the life of individual projects.

¹Texas General Land Office. (2016), Shoring up the Future for the Texas Gulf Coast Report.

²Gulf Intracoastal Waterway. (2013) Texas Freight Advisory Committee.

³Stokes, Shawn, Marcy Lowe. (2013) Wildlife Tourism and the Gulf Coast Economy., The Environmental Defense Fund.

8. Budget and Funding

Estimated cost of the program activities and amount to be requested from the Oil Spill Impact Component:

Estimated Funds: \$7,830,000

The amount of funds to be allocated for each project will be detailed in the budget in the work plan for that project and submitted to the RESTORE Council for approval.

Of the amount of available funds, approximately 10% will be for planning activities and 90% for implementation.

9. Partnerships

TCEQ staff will work with the Office of the Governor (OOG) and the CRT to identify projects that promote nature-based tourism in the stated eligible counties and through the stated eligible applicants. The CRT has been working with the local communities affected by Hurricane Harvey. Their on-going efforts will help ensure that the damage caused by the hurricane to the nature-based tourism industry are appropriately identified. This partnership will enable the selection of projects that can best address the economic and environmental impacts.

10. Leveraged Resources:

Leverage resources will be dependent on the individual projects; however, TCEQ will take advantage of any and all opportunities to leverage the RESTORE grant funds. Any leveraged funds available for a project will be identified in that project's work plan.

11. Funds Used as Non-Federal Match:

Funds used as a non-federal match will be dependent on the individual implemented projects and will be included in that project's work plan. In all opportunities, TCEQ will look to leverage restoration funding available through other federal funds, as well as grant funds available as a result of the Deepwater Horizon Oil Spill.

Appendix B: Removal of Debris and/or Associated Sediment from Creeks, Bayous and Other Waterways to Improve Water Quality

1. Program: Removal of Debris and/or Associated Sediment from Creeks, Bayous and Other Waterways

A. Description/Summary

The primary eligible activity that this program supports is mitigation of damage to fish, wildlife and natural resources. Projects within this program would focus on flooding, erosion, ecological and economic issues. Possible activities could include removal of debris (including vegetative or hard structure) or associated sediment that have caused distress in the waterflow of the channel or flooding in other surrounding areas due to blockage of a waterway. Activities could also include restoration efforts to improve water quality for natural resources and habitat in channels or other waterways after debris or sediment removal. Removal of debris and sediment must be limited to those efforts which will result in improvements to water quality or living coastal and marine resources. Activities will not include removal of debris and associated sediment for navigation or other purposes that do not meet the selected eligible activity of mitigation of damage to fish, wildlife and natural resources.

This program links to the Restore Water Quality and Quantity goal included in the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan ("Plan"). Removal of debris in waterways will assist in improving the region's fresh, estuarine and ultimately marine waters and will also help to reduce flooding in surrounding areas.

The Plan's goal to Replenish and Protect Living Coastal and Marine Resources will also be addressed. Projects will aid in restoring fresh water flows to the Gulf of Mexico that promote a healthy ecosystem and enhance the economy and provide for sustainable living. Activities could address erosion, flooding, freshwater inflows, debris and/or sediment removal, because of lodged debris and changed waterflow, for projects that will result in improvements to water quality or living coastal and marine resources.

Need

Hurricane recovery has become a priority due to the devastating impacts of Hurricane Harvey, which hit the Texas coast on August 25, 2017. In addition to the usual high winds and storm surge of a hurricane, Harvey also caused flooding on a historic level along the Texas coast due to its slow movement and record-breaking rainfall. The massive flooding resulted in the deposition of both natural and man-made debris in waterways throughout the area. This debris can lead to entanglement or toxic exposure for fish and wildlife in these waters. Additionally, such debris can clog waterways causing flooding and hindering fresh water from reaching the Gulf. Removal of the debris would improve ecosystems and mitigate flooding.

Purpose/Objective

The purpose and objective of this program is to identify and address areas where removal of Harvey-related debris and associated sediment in waterways could improve ecosystems and mitigate flooding.

Location

The selected programs and projects will be conducted in counties that are eligible to receive RESTORE funds and are included in the Hurricane Harvey federal Disaster Declaration for Texas. The counties eligible to receive funds for this program include

Aransas, Brazoria, Calhoun, Chambers, Galveston, Harris, Jackson, Jefferson, Matagorda, Nueces, Orange, Refugio, San Patricio and Victoria.

Timeline

Work on this program will begin March 1, 2019 and will end on February 27, 2024. The program will be administered by TCEQ. Components of individual projects within the program will be implemented by eligible subrecipients.

Additional Information/Eligible Applicants

The following entities are eligible

- State Agencies
- Political Subdivisions:
 - City
 - County
 - Navigation Districts
- Public Institutions of Higher Education

B. Focus

The Removal of Debris and/or Associated Sediment from Creeks, Bayous and Other Waterways programmatic area, and the associated projects implemented under this program, contributes to both the economic and ecological recovery of the Gulf Coast because removal of debris in waterways will assist in improving the region's fresh, estuarine and ultimately marine waters and will also help to reduce flooding in surrounding areas.

2. RESTORE Act Eligibility

The primary eligible activity for this proposed program under the Oil Spill Impact Component of the RESTORE Act is mitigation of damage to fish, wildlife, and natural resources.

The secondary eligible activities for this proposed program are:

Restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region; and

Coastal flood protection and related infrastructure.

Secondary eligible activities may demonstrate increased value-added benefits to an activity and must first demonstrate the support of the primary activity and result in improvements to water quality.

TCEQ will work with the Governor Abbott's Commission to Rebuild Texas (CRT), to identify projects that address this eligible activity. This program and all projects identified for implementation will address needs associated with removal of debris and/or associated sediment from waterways to improve water quality and comply with the eligibility requirements in the Oil Spill Component of the RESTORE Act 33 U.S.C., section 1321(t)(3)(B) and the Council's Comprehensive Plan.

3. Comprehensive Plan Goals and Objectives

This program aligns with the following goals of the Comprehensive Plan

Goal 2: Restore Water Quality and Quantity

Goal 3: Replenish and Protect Living Coastal and Marine Resources; and Goal 4: Enhance Community Resilience

Additionally, the program supports the following objectives of the Comprehensive Plan:

Objective 4: Restore and Enhance Natural Processes and Shorelines; and Objective 5: Promote Community Resilience

4. Major Milestones

- A. Based on approved State Expenditure Plan (SEP), develop and submit federal application to the RESTORE Council for programmatic area.
- B. Receive grant award from the Council.
- C. Working with CRT identify projects to be funded through the programmatic area grant award.
- D. Select projects selection in consultation with Office of the Governor (OOG).
- E. Develop and submit work plans for identified projects within programmatic area grant.
- F. Receive project approval from RESTORE Council.
- G. Develop grant contracts with project recipients that include activities such as reporting and monitoring requirements, as well as deliverables and timelines.
- H. TCEQ management and oversight of all projects work plans, including compliance with all federal and state grant requirements and evaluation of the programmatic area to measure and convey the success and outcomes at a programmatic level in helping to restore and protect the Gulf Coast region.
- I. Project related information will be posted on the Texas RESTORE web site.

5. Success Criteria/Metrics/Outcome

Additional anticipated success criteria and outcomes will be based on the specifics appropriate to each implemented project and general success criteria and outcomes include:

Outcome: Project scope is completed in timely manner.

Anticipated Project Success Criteria: All project milestones are met by required dates including final conclusion of the project.

Outcome: Project scope is completed within budget.

Anticipated Project Success Criteria: The overall expended dollar amount for the project is at or below the budgeted amount while sub-category expenditures are no more than 15% over budgeted amount for that item.

An example of a possible outcome and associated success criteria depending on the project is:

Outcome: Waterways cleared of significant debris.

Anticipated Project Success Criteria: Amount of debris and/or sediment removed from waterways.

Outcome: Water quality is restored and fish, wildlife and natural resource habitats are improved through debris and sediment removal.

Anticipated Project Success Criteria: Amount of debris removed from waterways or prevented from entering waterways.

Anticipated Project Success Criteria: Miles of waterways with restored hydrology through removal of debris and sediment.

Project specific success criteria will be developed as projects under this program are identified.

6. Monitoring and Evaluation

All implemented projects will be monitored by the success criteria described in this appendix for their effectiveness as well as any specific project appropriate success criteria to ensure results are clearly understood and evaluated. Future work plans for individual projects will include the mechanisms subrecipients will employ to monitor individual project outcomes.

7. Best Available Science

Debris and sediment are common problems in coastal waterways, especially in the aftermath of a hurricane. Water quality is compromised by debris, as items can restrict circulation and flow, particularly in shallow, narrow tributaries. Furthermore, the possibility of abandoned boats' fuel or oil reservoirs eventually rusting through, rupturing, and spilling their contents into the water is another threat to the ecosystem. Although a small amount of petroleum products may not kill marine organisms, it can affect vision, sense of smell, growth, and reproductive ability of these organisms, all of which threaten marine resources as well as recreational fishing, boating, and related tourism.¹ Additionally, debris blocking waterways can cause water to back up and exacerbate flood conditions.² Furthermore, removing debris and sediment can facilitate delivery of freshwater to the Gulf. Delta and lagoon restoration efforts can mitigate hydrologic and water quality impairments within major delta and lagoon systems along the coast.³ The quality, quantity, and timing of freshwater inflow from rivers to the Gulf is important to maintaining the natural salinity, nutrient, and sediment loading regimes which support the unique biological communities of each estuary and ensure healthy ecosystem function.⁴

¹ Galveston Bay Foundation. "Marine Debris Removal." Accessed on June 12, 2018. <https://galvbay.org/how-we-protect-the-bay/on-the-ground/marine-debris-removal/>

² Bennett, Adam. KHOU. "Harvey victims worry drainage issues could cause flooding." Accessed on June 12, 2018. <https://www.khou.com/article/news/local/harvey-victims-worry-drainage-issues-could-cause-flooding/285-520732079>

³ Texas General Land Office, "Texas Coastal Resiliency Master Plan." Accessed November 6, 2018. <http://www.glo.texas.gov/coastal-grants/projects/files/Master-Plan.pdf>

⁴ Texas Water Development Board. "Freshwater Inflow Needs of Texas Estuaries." Accessed on June 12, 2018. <http://www.twdb.texas.gov/surfacewater/flows/freshwater/index.asp>

A majority of swamps along the Gulf coast are threatened by saltwater intrusion and by hydrologic alterations that cause impoundment, restrict tree regeneration, and reduce nutrient, sediment, and freshwater inputs. Diverting freshwater, planting seedlings or saplings, removing impediments to surface water flow, and implementing management plans in these wetlands are necessary to sustain them.⁵

Associated best available science will be used to develop each of the project work plans and will be implemented throughout the life of individual projects.

8. Budget and Funding

Estimated cost of the program activities and amount to be requested from the Oil Spill Impact Component:

Estimated Funds: \$0

The amount of funds to be allocated for each project will be detailed in the budget in the work plan for that project and submitted to the RESTORE Council for approval.

Of the amount of available funds, approximately 10% will be for planning activities and 90% for implementation.

9. Partnerships

TCEQ staff will work with the OOG and the CRT to identify projects that effectuate removal of debris and/or associated sediment from creeks, bayous and other waterways to benefit water quality. The CRT has been working with the local communities affected by Hurricane Harvey. Their on-going efforts will help ensure that the damage caused by the hurricane is appropriately identified. This partnership will enable the selection of projects that can best address the economic and environmental impacts.

10. Leveraged Resources:

Leverage resources will be dependent on the individual projects; however, TCEQ will take advantage of any and all opportunities to leverage the RESTORE grant funds. Any leveraged funds available for a project will be identified in that project's work plan.

11. Funds Used as Non-Federal Match:

Funds used as a non-federal match will be dependent on the individual implemented projects and will be included in that project's work plan. In all opportunities, TCEQ will look to leverage restoration funding available through other federal funds, as well as grant funds available as a result of the Deepwater Horizon Oil Spill.

⁵ Day, John W., PHD., and Hunter, Rachel G., PHD. "Restoration and Conservation of Coastal Forested Wetlands in the Gulf of Mexico. Accessed November 6, 2018.
http://www.usendowment.org/images/Coastal_Forested_Wetlands_Report--August_2013.pdf

Appendix C: Restoration: Water Quality and Quantity

1. Program: Restoration: Water Quality and Quantity

A. Description/Summary

The primary eligible activity that this program supports is restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches and coastal wetlands of the Gulf Coast Region. Projects within this program will focus on restoring natural hydrology, freshwater flows, and salinity levels in coastal waterways, thereby directly benefiting ecosystems. Activities may include processes to improve water quality, water quantity, enhance freshwater inflows, restore natural hydrology, and to restore salinity levels in coastal waterways and wetlands thereby improving the ecosystem.

This program links to the Restore Water Quality and Quantity goal included in the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan ("Plan"). Restoring and protecting water quality and quantity activities will improve the native coastal prairie, intermediate and brackish wetlands and bottomland hardwoods while allowing the progression of freshwater into the Gulf of Mexico.

The Plan's goal to Restore and Revitalize the Gulf Economy will also be addressed. Projects will support water quality and quantity initiatives designed to benefit the ecosystem. Activities could assist in revitalizing a Gulf economy that relies on the seafood industry. Projects allowing freshwater inflows through inland areas and/or wildlife management areas that ultimately benefit habitat and water quality to marshes and wetlands may be examples of projects undertaken. Other projects could include those restoring natural flow regime patterns to create or enhance sustainable estuaries, those creating essential habitats, living shorelines and those improving marine resources.

Need

Hurricane recovery has become a priority due to the devastating impacts of Hurricane Harvey, which hit the Texas coast on August 25, 2017. Sensitive ecological areas were damaged or destroyed by saltwater inundation and other impacts from the hurricane.

Purpose/Objective

The purpose and objective of this program is to identify and address areas where restoration activities involving water quality and quantity can help support healthy ecosystems as well as economic interests.

Location

The selected programs and projects will be conducted in counties that are eligible to receive RESTORE funds and are included in the Hurricane Harvey federal Disaster Declaration for Texas. The counties eligible to receive funds for this program include Aransas, Brazoria, Calhoun, Chambers, Galveston, Harris, Jackson, Jefferson, Matagorda, Nueces, Orange, Refugio, San Patricio and Victoria.

Timeline

Work on this program will begin March 1, 2019 and will end on February 27, 2024. The program will be administered by TCEQ. Components of individual projects within the program will be implemented by eligible subrecipients.

Eligible Applicants

The following entities are eligible:

- State Agencies
- Political Subdivisions
 - City
 - County
 - Navigation Districts
- Public Institutions of Higher Education

B. Focus

The Restoration Water Quality and Quantity programmatic area, and the associated projects implemented under this program, contribute to both the economic and ecological recovery of the Gulf Coast because water quality and quantity is closely tied to ecosystem health which, in turn, is closely tied to the Gulf's multimillion dollar seafood industry as well as recreational fishing.

2. RESTORE Act Eligibility

The primary eligible activity for this proposed program under the Oil Spill Impact Component of the RESTORE Act is restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region.

Secondary eligible activities may demonstrate increased value-added benefits to an activity and must first demonstrate the support of the primary activity and result in improvements to water quality.

TCEQ will work with Governor Abbott's Commission to Rebuild Texas (CRT), to identify projects that address these eligible activities. This program and all projects identified for implementation will address the need of water quality and quantity and comply with the eligibility requirements in the Oil Spill Impact Component of the RESTORE Act 33 U.S.C., Section 1321(t)(3)(B) and the Council's Comprehensive Plan.

3. Comprehensive Plan Goals and Objectives

This program aligns with the following goals of the Comprehensive Plan:

- Goal 2: Restore Water Quality and Quantity
- Goal 5: Restore and Revitalize the Gulf Economy

Additionally, the program supports the following objective of the Comprehensive Plan:

- Objective 2: Restore, Improve, and Protect Water Resources

4. Major Milestones

- A. Based on approved State Expenditure Plan (SEP), develop and submit federal application to the RESTORE Council for programmatic area.
- B. Receive grant award from the Council.
- C. Working with CRT, identify projects to be funded through the programmatic area grant award.
- D. Select projects in consultation with the Office of Governor (OOG).
- E. Develop and submit work plans for identified projects within programmatic area grant.
- F. Receive project approval from RESTORE Council.

- G. Develop grant contracts with project recipients that include activities such as reporting and monitoring requirements, as well as deliverables and timelines.
- H. TCEQ management and oversight of all project work plans, including compliance with all federal and state grant requirements and evaluation of the programmatic area to measure and convey the success and outcomes at a programmatic level in helping to restore and protect the Gulf Coast region.
- I. Project related information will be posted on the Texas RESTORE web site.

5. Success Criteria/Metrics/Outcome

Additional anticipated success criteria and outcomes will be based on the specifics appropriate to each implemented project and general success criteria and outcomes include:

Outcome: Project scope is completed in timely manner.

Anticipated Project Success Criteria: All project milestones are met by required dates including final conclusion of the project.

Outcome: Project scope is completed within budget.

Anticipated Project Success Criteria: The overall expended dollar amount for the project is at or below the budgeted amount while sub-category expenditures are no more than 15% over budgeted amount for that item.

An example of a possible outcome and associated success criteria depending on the project is:

Outcome: Water quality/quantity and hydrology is restored benefitting the coastal ecosystem and the species and economies they support.

Anticipated Project Success/Criteria/Metric: Acres of habitat benefitted through hydrological restoration activities.

Anticipated Project Success Criteria/Metric: Estimated amount of pollutants or excess nutrients removed by hydrological restoration as water progresses and filters flowing through coastal habitat prior to entry into open waters.

Project specific success criteria will be developed as projects under this program are identified.

6. Monitoring and Evaluation

All implemented projects will be monitored by the success criteria described in this appendix for their effectiveness as well as any specific project appropriate success criteria to ensure results are clearly understood and evaluated. Future work plans for individual projects will include the mechanisms subrecipients will employ to monitor individual project outcomes.

7. Best Available Science

The beneficial role of healthy watersheds can be far-reaching and include ecosystem services and economic benefits.¹ Freshwater ecosystems are among the most degraded by worsening water quality and quantity.² Maintaining and restoring the state's freshwater wetlands and coastal uplands enhances water quality, the diversity of flora and fauna, the fishing and ecotourism industries, and the overall health of Texas coastal ecosystems.³ Anthropogenic or human produced changes occurring upstream of estuaries have overwhelming consequences for estuarine systems as well as the social and economic structures that depend on them. Freshwater inflow carries nutrients and sediments to and provides low-salinity habitats for estuarine resources. Construction projects, dams, and diversions can remove freshwater from streams and rivers before it reaches estuarine systems. Changes within the dynamic estuarine ecosystems resulting from altered freshwater inflows are complex and implications for management will require compilation and interpretation of existing experimental results at the hydrological, ecological condition, and ecological resources levels.⁴ In addition to the constant natural and man-made stressors to ecosystems, Hurricane Harvey placed additional pressure on coastal ecosystems in Texas. Besides impacts to individuals, homes and communities, hurricanes also have a profound effect on the environment, especially estuarine and coastal habitats.⁵ There is an abundance of possible projects in Texas to restore or protect ecosystems by focusing on improving water quality and quantity.

Associated best available science will be used to develop each of the project work plans and will be implemented throughout the life of individual projects.

8. Budget and Funding:

Estimated cost of the program activities and amount to be requested from the Oil Spill Impact Component:

Estimated Funds: \$0

The amount of funds to be allocated for each project will be detailed in the budget in the work plan for that project and submitted to the RESTORE Council for approval.

Of the amount of available funds, approximately 10% will be for planning activities and 90% for implementation.

¹United States Environmental Protection Agency. "Benefits of Healthy Watersheds." Accessed on June 8, 2018. <https://www.epa.gov/hwp/benefits-healthy-watersheds>

²The Economics of Ecosystems and Biodiversity. "Water quality is as important for ecosystems as for people." Accessed on June 8, 2018. <http://www.teebweb.org/water-quality-is-as-important-for-ecosystems-as-for-people/>

³The General Land Office. "Texas Resiliency Master Plan." Accessed October 11, 2018. <http://www.glo.texas.gov/coastal-grants/projects/files/Master-Plan.pdf>

⁴Harte Research Institute. "Freshwater Inflows." Accessed on October 11, 2018. <https://www.freshwaterinflows.org>

⁵Hurricanes: Science and Society. "Ecosystem Perspective: What can a hurricane do to the environment?" Accessed on June 8, 2018. <http://www.hurricanesociety.org/society/impacts/environmentalimpacts/>

9. Partnerships

TCEQ staff will work with the OOG and the CRT to identify projects that support water quality and quantity initiatives in the stated eligible counties and through the stated eligible applicants. The CRT has been working with the local communities affected by Hurricane Harvey. Their on-going efforts will help ensure that the damage caused by the hurricane to water quality and quantity as well as related ecosystems and economies are appropriately identified. This partnership will enable the selection of projects that can best address the economic and environmental impacts.

10. Leveraged Resources

Leverage resources will be dependent on the individual projects; however, TCEQ will take advantage of any and all opportunities to leverage the RESTORE grant funds. Any leveraged funds available for a project will be identified in that project's work plan.

11. Funds Used as Non-Federal Match

Funds used as a non-federal match will be dependent on the individual implemented projects and will be included in that project's work plan. In all opportunities, TCEQ will look to leverage restoration funding available through other federal funds, as well as grant funds available as a result of the Deepwater Horizon Oil Spill.

Appendix D: Shoreline and Beach Restoration

1. Program: Shoreline and Beach Restoration

A. Description/Summary

The primary eligible activity this program supports is restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches and coastal wetlands of the Gulf Coast Region. Projects within this program will focus on erosion, habitat restoration and economic vitality.

This program links to the Restore and Conserve Habitat goal included in the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan ("Plan"). Projects would restore and conserve habitats and support healthy ecosystems through activities such as the restoration of dunes, beaches, marine habitats, living shorelines, shoreline stabilization, breakwaters and the enhancement of wetlands.

The Plan's goal to Restore and Revitalize the Gulf Economy will also be addressed. Projects will support tourism and economic interests and could include activities such as the restoration and conservation of marine habitats for recreational fishing or seafood industry purposes, restoration and enhancement of beaches and dunes, shoreline stabilization for erosion protection, revetment repairs, marsh protection and restoration, beach re-nourishment, habitat restoration and the protection and enhancement of wetlands to enhance the sustainability and resiliency of the Gulf economy.

Need

Hurricane recovery has become a priority due to the devastating impacts of Hurricane Harvey, which hit the Texas coast on August 25, 2017. The average erosion rate along the Texas coast is 4.1 feet per year and this loss was exacerbated by the recent hurricane. Additionally, dunes and other natural barriers that protect both structures (e.g., homes and industry) and sensitive ecological areas from seawater inundation were also damaged or destroyed in the hurricane.

Purpose/Objective

The purpose and objective of this program is to identify and address areas where beach and shoreline restoration can help support healthy ecosystems as well as economic interests.

Location

The selected programs and projects will be conducted in counties that are eligible to receive RESTORE funds and are included in the Hurricane Harvey federal Disaster Declaration for Texas. The counties eligible to receive funds for this program include: Aransas, Brazoria, Calhoun, Chambers, Galveston, Harris, Jackson, Jefferson, Matagorda, Nueces, Orange, Refugio, San Patricio and Victoria.

Timeline

Work on this program will begin March 1, 2019 and will end on February 27, 2024. The program will be administered by TCEQ. Components of individual projects within the program will be implemented by eligible subrecipients.

Eligible Applicants

The following entities are eligible:

- State Agencies
- Political Subdivisions:

- City
- County
- Navigation Districts
- Public Institutions of Higher Education

B. Focus:

The Shoreline and Beach Restoration programmatic area, and the associated projects implemented under this program, contributes to both the ecological and economic recovery of the Gulf Coast. Texas has hundreds of miles of coastline on the Gulf with significant population and industry. Restoration of beaches and shoreline can increase the health of those ecosystems, promote tourism, and provide important barriers to protect established development.

2. RESTORE Act Eligibility

The primary eligible activity for this proposed program under the Spill Impact Component of the RESTORE Act is restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region

TCEQ will work with Governor Abbott's Commission to Rebuild Texas (CRT), to identify projects that address these eligible activities. This program and all projects identified for implementation will address needs associated with shoreline and beach restoration and comply with the eligibility requirements in the Spill Impact Component of the RESTORE Act 33 U.S.C., Section 1321(t)(3)(B) and the Council's Comprehensive Plan.

3. Comprehensive Plan Goals and Objectives

This program aligns with the following goals of the Comprehensive Plan:

- Goal 3: Replenish and Protect Living Coastal and Marine Resources
- Goal 4: Enhance Community Resilience

Additionally, the program supports the following objectives of the Comprehensive Plan:

- Objective 4: Restore and Enhance Natural Processes and Shorelines
- Objective 5: Promote Community Resilience

4. Major Milestones

- A. Based on approved State Expenditure Plan (SEP), develop and submit federal application to the RESTORE Council for programmatic area.
- B. Receive grant award from the Council.
- C. Working with CRT, identify projects to be funded through the programmatic area grant award.
- D. Select projects in consultation with the Office of the Governor (OOG).
- E. Develop and submit work plans for identified projects within programmatic area grant.
- F. Receive project approval from RESTORE Council.
- G. Develop grant contracts with project recipients that include activities such as reporting and monitoring requirements, as well as deliverables and timelines.
- H. TCEQ management and oversight of all project work plans, including compliance with all federal and state grant requirements and evaluation of the programmatic area to measure and convey the success and outcomes at a programmatic level in helping to restore and protect the Gulf Coast region.

I. Project related information will be posted the Texas RESTORE web site.

5. Success Criteria/Metrics/Outcome

Additional anticipated success criteria and outcomes will be based on the specifics appropriate to each implemented project but general success criteria and outcomes include:

Outcome: Project scope is completed in timely manner.

Anticipated Project Success Criteria: All project milestones are met by required dates including final conclusion of the project.

Outcome: Project scope is completed within budget.

Anticipated Project Success Criteria: The overall expended dollar amount for the project is at or below the budgeted amount while sub-category expenditures are no more than 15% over budgeted amount for that item.

An example of a possible outcome and associated success criteria depending on the particular project is:

Outcome: Shoreline and beaches are restored through habitat restoration and protection.

Anticipated Project Success Criteria/Metric:

- Acres of habitat restored or protected
- Miles of living shoreline installed
- Miles of coastal habitat shoreline restored

Project specific success criteria will be developed as projects under this program are identified.

6. Monitoring and Evaluation

All implemented projects will be monitored by the success criteria described in this appendix for their effectiveness as well as any specific project appropriate success criteria to ensure results are clearly understood and evaluated. Future work plans for individual projects will include the mechanisms subrecipients will employ to monitor individual project outcomes.

7. Best Available Science

The average erosion rate for the 367 miles of Texas coast is 4.1 feet per year and sixty-four percent of the Texas coast is eroding at an average rate of about 6 feet per year, with some locations losing more than 30 feet per year.¹ FEMA estimates that every dollar spent on erosion control and mitigation to preserve wetlands and other natural ecosystems, will provide a return on average of four dollars in cost-savings for the future.² Critical shoreline erosion, habitat loss and environmental degradation problems are also occurring along the GIWW and other navigation channels along the Texas coast.³ In addition to the regular environmental and man-made pressures on existing coastal ecosystems and natural structures that protect the coast (e.g., dunes), Hurricane Harvey caused additional and often extensive damage to these same ecosystems and natural structures. In addition to other

¹The General Land Office. "Coastal Erosion." Accessed on June 8, 2018.
<http://www.glo.texas.gov/coast/coastal-management/coastal-erosion/index.html>

²The General Land Office. "Coastal Erosion." Accessed on June 8, 2018.
<http://www.glo.texas.gov/coast/coastal-management/coastal-erosion/index.html>

³The General Land Office. "Texas Coastal Resiliency Master Plan." Accessed on October 11, 2018
<http://www.glo.texas.gov/coastal-grants/projects/files/Master-Plan.pdf>

successful approaches to mitigate such damage, the use and effectiveness of green infrastructure methods to reduce coastal impacts has been well documented.⁴

Associated best available science will be used to develop each of the project work plans and will be implemented throughout the life of individual projects.

8. Budget and Funding:

Estimated cost of the program activities and amount to be requested from the Oil Spill Impact Component:

Estimated Funds: \$23,680,000

The amount of funds to be allocated for each project will be detailed in the budget in the work plan for that project and submitted to the RESTORE Council for approval.

Of the amount of available funds, approximately 10% will be for planning activities and 90% for implementation.

9. Partnerships:

TCEQ staff will work with the OOG and the CRT to identify projects that restore and protect shorelines, beaches and associated natural resources in the stated eligible counties and through the stated eligible applicants. The CRT has been working with the local communities affected by Hurricane Harvey. Their on-going efforts will help ensure that the damage caused by the hurricane to shoreline, beaches and associated natural resources are appropriately identified. This partnership will enable the selection of projects that can best address the economic and environmental impacts.

10. Leveraged Resources

Leverage resources will be dependent on the individual projects; however, TCEQ will take advantage of any and all opportunities to leverage the RESTORE grant funds. Any leveraged funds available for a project will be identified in that project's work plan.

11. Funds Used as Non-Federal Match

Funds used as a non-federal match will be dependent on the individual implemented projects and will be included in that project's work plan. In all opportunities, TCEQ will look to leverage restoration funding available through other federal funds, as well as grant funds available as a result of the Deepwater Horizon Oil Spill.

⁴NOAA – Office of Coastal Management. “Green Infrastructure Effectiveness Database.” Accessed on June 8, 2018. <https://coast.noaa.gov/digitalcoast/training/gi-database.html>