9.0 ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS (INCLUDING MITIGATION)

This chapter summarizes the environmental permits, issues and commitments, including mitigation commitments, that have been identified thus far as being applicable to the Recommended Alternative (Red). Mitigation commitments identified in this section have been developed through active and continuous coordination with Cooperating and Participating agencies and the public, and these would be finalized and documented in the Record of Decision (ROD) as applicable. Some commitments, such as noise barriers for example, are subject to additional public involvement as noted, and implementation if warranted would be managed accordingly by the Joint Lead Agencies.

9.1 DESIGN COORDINATION REQUIREMENTS

The project would include a 10-foot shared-use path for bicyclists and pedestrians to cross the Inner Harbor and provide alternative means of transportation throughout the project limits. Design coordination with the Metropolitan Planning Organization (MPO) and the City of Corpus Christi is required with respect to the accommodation of bicycle and pedestrian facilities into the final design of the project, including any requirements for signage or striping.

Design coordination with the Regional Transportation Authority (RTA) is required with respect to the accommodation of bus routes or bus stops into the final design of the project, as needed, including any requirements for signage or striping.

Design coordination with the Union Pacific Railroad and the Port of Corpus Christi Authority is required with respect to the accommodation of rail crossings into the final design of the project.

Design coordination with the City of Corpus Christi's Storm Water Management Department is required with respect to the accommodation of existing storm sewer infrastructure into the final design of the project.

Design coordination with public and private utility owners is required with respect to the accommodation of existing overhead and underground utilities into the final design of the project. Utility relocations and adjustment would be accomplished with the minimum practicable disruption in service to customers.

9.2 DISPLACEMENTS

To ensure that decent, safe, and sanitary dwellings would be available to all displaced persons, the Texas Department of Transportation's (TxDOT) right of way acquisition and relocation assistance program (RAP) (see **Appendix L**) would be conducted in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (P.L. 91-646). Relocation resources would be made available to all eligible displaced residents, including tenants, without

discrimination, consistent with the requirements of the Civil Rights Act of 1964 and the Housing and Urban Development Act of 1974.

For those tenants qualifying for the U.S. Department of Housing and Urban Development's Annual Survey of Income Limits for the Public Housing and Section 8 Programs, considerations for Housing and Urban Development (HUD) Section 8 Existing Housing Certificates or Housing Vouchers would be offered through the TxDOT Rental Assistance program.

If comparable housing is not available at the time of right of way acquisition, TxDOT would provide the required housing or, if necessary, provide housing supplement payments in excess of the standard payment limits to ensure that decent, safe and sanitary dwellings are made available to all eligible persons displaced by the proposed project.

In addition to relocation assistance, TxDOT relocation counselors would work independently with the person or persons displaced by the proposed action to determine whether special accommodations would be required, such as finding a decent, safe and sanitary dwelling in the resident's preferred location, particularly in cases where proximity to family members or other interdependencies may exist. Elderly persons may require special accommodation, and TxDOT would work closely with affected residents to find appropriate housing.

TxDOT would assist displaced business owners and tenants by reimbursing reasonable moving costs, personal property losses, expenses in finding a replacement, and expenses in reestablishing the business TxDOT would offer relocation counseling to employees of displaced businesses to minimize economic harm and provide information as to possible sources of funding and assistance from other local, state, and federal agencies.

TxDOT would work with the Workforce Solutions of the Coastal Bend to ensure that displaced employees are aware of offerings including career development information, job search resources, and training programs.

9.3 ENVIRONMENTAL JUSTICE

9.3.1 Livability Enhancements

As a way of mitigating for the potential loss of community cohesion and providing fair distribution of the beneficial effects of the proposed project, the Joint Lead Agencies hosted a Livability Summit in Corpus Christi sponsored by the Partnership for Sustainable Communities—an interagency initiative of the Federal Highway Administration (FHWA), the Environmental Protection Agency (EPA), and the U.S. Department of Housing and Urban Development (HUD).

The Livability Summit was held October 15, 2014 at the Congressman Solomon P. Ortiz International Center. This was a day-long event where participants were provided with information on major plans and programs to advance livability in the Corpus Christi Region. The agenda included a presentation on

the Harbor Bridge project, as well as other local opportunities for enhancing sustainability, including plans by the Corpus Christi Metropolitan Planning Organization (MPO), the City of Corpus Christi, and the Port of Corpus Christi. The agenda also included identification of ways for the local community to seek grants and other federal funding through FHWA, EPA and HUD. Representatives of FHWA, EPA and HUD each provided information as part of a panel discussion of the funding opportunities afforded by their respective agencies. Local participation was encouraged through active public outreach which included print ads, web ads, direct mail to affected neighborhoods, flyers, postings, and phone calls to community leaders, including members of the Citizens Advisory Committee and Technical Advisory Committee. There were 35 attendees at the Summit, including local, state and federal agency representatives, local residents, business leaders and local university students and faculty. Attendees participated in a workshop addressing questions related to defining livability and sustainability and prioritizing livability initiatives. Among the priorities noted were a comprehensive transportation system, revitalization of Downtown, the SEA District and North Beach, and revitalizing neighborhoods.

Input from the Livability Summit would contribute to a Community Sustainability Plan to be developed by TxDOT for the Northside neighborhoods. Among other matters, it would identify grant opportunities to further the goals and strategies of the Plan. This effort was requested of TxDOT by the Hillcrest Residents Association and would build upon the continued collaboration with community members begun during the Harbor Bridge EIS public involvement effort. The Community Sustainability Plan would be drafted and finalized within one year of the start of construction.

TxDOT would continue to work with the Partnership for Sustainable Communities (FHWA, EPA and HUD), as well as the City of Corpus Christi, the Port of Corpus Christi Authority, the MPO, and the Regional Transportation Authority during the development of the Community Sustainability Plan. The Partnership agencies offer grant funding opportunities, including technical assistance in preparing grant applications. Available grant assistance programs address an array of sustainability enhancements aimed at creating healthy neighborhoods, providing more housing and home improvement options, generating economic opportunities, and advancing efficient transportation options. These funding and technical assistance programs, such as the Surface Transportation Program (STP) and the Community Development Block Grant (CDBG) program can provide other means of federal resources for the state, the Coastal Bend region and the city of Corpus Christi. The Partnership produced the Environmental Justice and Sustainability Deskbook (available at www.epa.gov/smartgrowth) to provide information on the resources available to communities through the Partnership agencies. TxDOT would utilize this guidance as it develops the Community Sustainability Plan.

To address the potential for the construction phase to hinder neighborhood residents' access to important community facilities, such as the Oveal Williams Senior Center and the CHRISTUS Spohn Health Clinic, TxDOT would provide for shuttle bus service during the construction phase of the project to transport residents through the US 181 construction zone. The shuttle bus service would be wheelchair accessible and would remain in place for the duration of construction activities affecting access across US 181 in the Northside community. TxDOT or its contractor would provide the shuttle

bus and the driver. Once construction of the proposed project were to be complete, local pedestrian access across US 181 would be available.

To offset the potential community cohesion effects of the loss of access across US 181 via Winnebago Street, the extension of Lake Street to replace access would also serve to connect neighborhood parks and other important community resources. This route would provide an accommodation for bicycle and pedestrian facilities and would offer a connection between Dr. H.J. Williams Memorial Park, T.C. Ayers Park, the Oveal Williams Senior Center, the community swimming pool, the proposed new park at the site of the former Washington Elementary School, and Solomon Coles High School. An Advance Funding Agreement (AFA) between the City of Corpus Christi and TxDOT would be developed to identify the parties responsible for carrying out the above-mentioned actions and improvements (more fully described in Section **9.12**, below).

9.3.2 Historic Preservation

To further address the community cohesion effects of the proposed project, TxDOT would document the cultural history of the Northside neighborhoods by: conducting oral history interviews with current and past residents; creating printed representations of the neighborhood history for display at the Oveal Williams Senior Center; and publishing a report of the neighborhood history to be made available for viewing at the Oveal Williams Senior Center, or other venue if preferred by the community. TxDOT staff and qualified historians and planners would collaborate with community leaders regarding the development of the oral history, displays, and report, building on the historical research that has been conducted thus far for the proposed project. The oral history, displays, and report would be completed within one year of the start of construction.

9.3.3 Workforce Support

To address the effects of business displacements and the potential for temporary or permanent loss of employment, the proposed project would include goals for the participation of disadvantaged or historically underutilized businesses in the construction. TxDOT would monitor contractors' compliance with these goals as part of its administration of the construction contract.

Additionally, TxDOT would establish a partnership with the non-profit Workforce Solutions of the Coastal Bend which provides a range of services for both employers and employees affected by the displacement of businesses resulting from the proposed project. During the right of way acquisition process, TxDOT staff would mail notices to both employers and employees affected by the displacement of businesses to make them aware of the services offered by Workforce Solutions of the Coastal Bend.

Workforce Solutions of the Coastal Bend receives funding from the Texas Workforce Commission, which is the state-government agency charged with overseeing and providing workforce development services to employers and job seekers for the state of Texas. For employers, the Texas Workforce Commission offers recruiting, retention, training and retraining, and outplacement services as well as valuable information on labor law and labor market statistics. For job seekers, the Texas Workforce Commission

offers career development information, job search resources, training programs, and, as appropriate, unemployment benefits.

Services provided to employers include:

- Recruitment, screening and referral of qualified motivated job applicants;
- Customized and on-the-job training;
- Job fairs;
- Interviewing facilities with fax, phone, and technology;
- Unlimited job postings with WorkinTexas.com;
- Consulting on Equal Opportunity, Americans With Disabilities Act, job skills analysis, and customized labor market information; and
- Professional outplacement services for companies restructuring, downsizing or closing operations.

Services provided by the Workforce Solutions of the Coastal Bend to all job seekers include:

- Current job listings and referrals to companies that are hiring;
- Access to WorkinTexas.com, a comprehensive online job matching system;
- Access to computerized job banks and invitations to hiring events;
- Professional workshops on resume writing, interviewing techniques and strategies for conducting a successful job search;
- Interest and aptitude testing;
- Information on available education and training programs and providers;
- Information on financial aid opportunities;
- Career and labor market information;
- Self-service resource libraries providing computers with Internet access, resume writing software, job search and career materials, telephones, copiers, printers, fax machines and more;
- Information and referral to community resource partners for services such as child care, transportation, housing assistance, etc.;
- Job placement assistance for those applying for cash assistance under Temporary Assistance for Needy Families and those receiving food stamps;
- Specialized employment services for veterans; and
- Specialized services for customers with disabilities, including information and referrals, and assistive technology.

In addition, once a construction contractor were to be selected, TxDOT would provide the facility for the contractor to conduct a job fair that would provide opportunities for local residents to learn about the different types of employment that could be available on the construction project and apply for employment. The job fair would occur prior to the start of construction and would include appropriate outreach to the minority and low-income communities affected by the proposed project, including postings at the Workforce Solutions of the Coastal Bend, the Texas Workforce Commission, the HEB

grocery store on Leopard Street, City Hall or other similar locations. Invitations would also be made to the Citizens Advisory Committee for distribution amongst the various groups represented by the members. Additional job fairs could be held by the contractor at the discretion of TxDOT.

9.3.4 Aesthetic Enhancements

In an effort to minimize the community cohesion effects of visual and aesthetic impacts of the proposed project in minority and low-income neighborhoods, the public, including neighborhood residents, would have the opportunity to participate in the ongoing process regarding the aesthetics of the proposed project. Various Context Sensitive Solutions (CSS) activities are underway to identify the aesthetics preferences of the local community. An initial workshop to discuss aesthetics with members of the Citizens Advisory Committee was held on July 8, 2014, and feedback from that workshop would be incorporated into the design for the Recommended Alternative. Community feedback emphasized the need for lighting on the proposed bridge similar to the existing bridge, utilizing a common aesthetic theme evoking the ocean with a cool color palette, and utilizing drought tolerant coastal plantings in the landscape design. The contract guidelines for final aesthetic design for the proposed project would require consideration and incorporation of this community input. Other CSS activities include the formation of a Blue Ribbon Panel comprised of local agency and city leaders, and a Corridor Advisory Committee was formed to gather local neighborhood input for park and trail mitigation (see **Section 9.12**). These CSS activities will continue and preferred aesthetic treatments would be determined. Thus far, the community has expressed an interest in hardscape and landscape improvements along the proposed hike and bike trail, a theme celebrating the local community history within the parks and safety lighting, particularly where the bridge structure intersects the proposed hike and bike trail. Future CSS activities are planned to determine how the community would like to incorporate their history into the project, and TxDOT would continue to work with the community throughout the development of the project.

9.4 CHILDREN'S HEALTH

Provisions would be included in project plans and specifications requiring contractors to develop a construction air emission control plan and to make every reasonable effort to minimize construction emissions through abatement measures such as limiting construction equipment idling and other emission limitation techniques, as appropriate.

The contractor would follow TxDOT's Standard Specifications, which would include provisions to protect the health and safety of persons in the proximity of construction and staging sites.

Lead and asbestos testing would be conducted prior to demolition to ensure that these materials are handled appropriately.

TxDOT would ensure that hazardous materials sites are avoided where practicable or sufficiently remediated so that the public would not be exposed to health risk.

9.5 AIR QUALITY IMPACTS

Particulate matter emissions would be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate.

Construction-related Mobile Source Air Toxics (MSAT) emissions would be minimized by including provisions in project plans and specifications requiring the contractor to develop a construction air emission control plan and to make every reasonable effort to minimize construction emissions through abatement measures such as limiting construction equipment idling and other emission limitation techniques, as appropriate..

9.6 TRAFFIC NOISE IMPACTS

Three noise barriers are proposed for incorporation into the final design of the project, as presented in **Table 9.6-1**. TxDOT would hold public noise workshops to solicit the viewpoints of property owners and residents adjacent to the proposed barriers and allow the property owners to vote as to whether to construct the barrier.

Table 9.6-1 Noise Barrier Proposal

Barrier	Representative Receivers	Total No. Benefited	Length (feet)	Height (feet)	Total Cost	$/Benefited Receiver	Reasonable & Feasible
A	R37 (Elliot Grant Homes; HUD-assisted housing)	7	295	11	$58,410	$8,344	Yes
B	R72	9	525	12	$113,400	$12,600	Yes
D	R88-R91 (Navarro Place Apts.; HUD-assisted housing)	15	1,368	14	$344,736	$22,982	Yes

Source: US 181 Harbor Bridge EIS Team 2014

Provisions would be included in the construction plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

9.7 WATER RESOURCES IMPACTS

Construction of the Recommended Alternative would require authorization under the Texas Commission on Environmental Quality (TCEQ) Construction General Permit (CGP), TXR150000 as a Large Construction Activity. The proposed project would be eligible for authorization under the CGP for discharges to impaired surface waters, if applicable at the time of construction, provided the project and associated activities are implemented, operated, and maintained in a manner that is consistent with the

approved Total Maximum Daily Load (TMDL) and TMDL Implementation Plan for Nueces Bay, and if applicable, a TMDL for Corpus Christi Bay beaches.

A Notice of Intent (NOI) to discharge storm water from a Large Construction Activity would be submitted to the TCEQ in order to obtain authorization to discharge under the CGP, and the NOI as well as a Construction Site Notice would be posted on the project site per CGP requirements. TxDOT and/or the contractor would provide operators of MS4s that would receive storm water discharge a copy of the NOI prior to commencement of construction.

TxDOT and/or the contractor would prepare and implement a Storm Water Pollution Prevention Plan (SW3P) describing the measures to be used to minimize pollutants in construction storm water discharges. Temporary erosion and sediment control Best Management Practices (BMP) would be designed, put in place and maintained throughout the construction phase, as required by the CGP and by TxDOT Construction Specifications.

In order to maintain compliance with the Coastal Management Program (CMP), the project would require a consistency determination from the Texas General Land Office (GLO). This determination would be obtained and coordination would occur during the Section 404 and Coast Guard bridge permitting processes.

To ensure consistency with the CMP, construction and maintenance of the proposed project would comply with the following policies:

1. Pollution prevention procedures would be incorporated into the construction and maintenance of the proposed project to minimize pollutant loading to coastal waters from storm water runoff, erosion and sedimentation, and use of pesticides and herbicides for maintenance of the right of way.
2. The proposed project would, to the greatest extent practicable, avoid and otherwise minimize the potential for adverse effects from construction and maintenance of the bridge, additional roads, and other development associated with the project.
3. The proposed project would, to the greatest extent practicable, avoid and otherwise minimize the potential for adverse effects from direct release of pollutants from oil or hazardous substance spills, contaminated sediments or storm water runoff to CNRAs through the implementation of permanent BMPs to be determined during the final design phase.
4. Where practicable, the proposed project would be located in existing rights of way or previously disturbed areas to avoid or minimize adverse effects.
5. The proposed project would be located in an area where, to the greatest extent practicable, future expansion would not require development in coastal wetlands except where such construction is determined to be essential for evacuation in the case of a natural disaster.
6. Construction and maintenance of the proposed project would, to the greatest extent practicable, avoid the impoundment and draining of coastal wetlands. Where impoundment or

draining cannot be avoided, compensatory mitigation would be implemented to mitigate adverse effects to the impounded or drained wetlands.

7. Construction of the proposed project would, to the greatest extent practicable, occur in areas and times selected to have the least adverse effects on recreational uses of CNRAs and on spawning or nesting seasons or seasonal migrations of terrestrial or aquatic species.

A bridge permit application packet would be prepared and submitted to the USCG to obtain a bridge permit for the construction of the proposed project.

During the construction and demolition phases of the proposed project, a regulated navigation area (RNA) would be established within the Inner Harbor to protect individuals and vessels from potential safety hazards and allow for safe and orderly movements through the area. Vessels would not be allowed to enter this area during certain times throughout these phases. Additionally, vessels would be required to proceed at a minimum safe speed in the RNA and would not be allowed to meet or pass.

The project would be designed for consistency with local National Flood Insurance Program (NFIP) standards, per 23 CFR §650.115. The project would be in accordance with current FHWA and TxDOT design policies and flooding attributable to an encroachment resulting from the project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. Bridges in regulatory floodplains would be designed to accommodate a 100-year flood in accordance with Federal Emergency Management Agency (FEMA) and local floodplain ordinance criteria.

The City of Corpus Christi and Nueces County are participants in the NFIP, coordination with the local Floodplain Administrators is required.

9.8 WETLANDS AND WATERS OF THE U.S.

Coordination with the Galveston District of the U.S. Army Corps of Engineers (USACE) would be conducted, as needed, to obtain a Section 404 Individual Permit. Compliance with the permit conditions, including the completion of compensatory mitigation, would be the responsibility of the Joint Lead Agencies.

TxDOT specifications for revegetation, erosion/sedimentation control, and other restoration would be employed during and after the construction phase.

Compliance with the Texas Water Quality Certification would be accomplished by implementation of TCEQ-approved BMPs for erosion control, sediment control, and post-construction total suspended solids (TSS) control. The SW3P required for the proposed project and project design would include at least one BMP from the 401 Water Quality Certification Conditions for Nationwide Permits. These BMPs would address each of the following categories: 1) erosion control, 2) sedimentation control, and 3) post construction TSS control.

9.9 VEGETATION IMPACTS

Disturbed areas would be restored and reseeded according to the TxDOT specifications.

Impacts during construction or construction-staging activities would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project.

Care would be taken to prevent the introduction of invasive species during construction.

Upon completion of earthwork operations, disturbed areas would be restored and reseeded in accordance with TxDOT's Vegetation Management Guidelines and in compliance with the intent of the FHWA Executive Memorandum on Environmentally and Economically Beneficial Landscape Practices.

9.10 WILDLIFE IMPACTS INCLUDING THREATENED AND ENDANGERED SPECIES

Construction phase activities for the proposed project would directly or indirectly affect most wildlife species present. The use of BMPs, careful vegetation clearing techniques, and replanting would minimize impacts to wildlife habitat within the proposed project area. Monitoring before and during construction activities would protect wildlife species, including nesting birds, from direct harm. Adjacent wildlife habitat would be protected from storm water runoff by implementing BMPs that would control erosion, post construction TSS, and sedimentation.

9.10.1 Threatened and Endangered Species

Potential habitat for eight federally listed threatened or endangered species and one candidate species occurs within the project area. These species include the Atlantic hawksbill sea turtle (LE), Green sea turtle (LE), Kemp's Ridley sea turtle (LE), Leatherback sea turtle (LE), Loggerhead sea turtle (LT), West Indian manatee (LE), Whooping Crane (LE), Red Knot (C), and Piping Plover (LT).

To avoid and minimize impacts to protected sea turtles and the West Indian manatee, the following would be implemented during construction and demolition activities:

1. Training would be provided on avoiding potential impacts on the sea turtles and manatee for all personnel involved in construction or demolition of the bridge.
2. The training information would advise contractors and staff that sea turtles and manatees may be found in the Rincon Channel and Inner Harbor.
3. The training materials would include a poster and/or photographs in a book to be carried onsite to assist in identifying these species.
4. The training materials would instruct personnel not to feed or water the manatee
5. The training materials would include instructions to call the Corpus Christi Ecological Services Field Office (CCESFO) in the event a manatee is sighted in or near the project area.

6. Qualified biologists would monitor the presence of sea turtles and manatees during all phases of construction and demolition within open waters of the project area.
7. Before construction or demolition commences, a preliminary impact zone would be established, delineated by a 50-foot radius from the work area if that impact zone would extend into the water. If any sea turtle or manatee were to be observed within the appropriate impact zone, the biological monitor would instruct that construction or demolition activities cease until it could be determined that the animal had moved beyond the impact zone radius, either through sighting or by waiting until enough time has elapsed (approximately 15 minutes) to assume that the animal has moved beyond the impact zone.
8. Prior to demolition, the contractor responsible for demolition would coordinate demolition activities with the local TPWD Kills and Spills Team (KAST) biologist. Contact information for the local KAST biologist is available online at: http://www.tpwd.state.tx.us/landwater/water/environmental concerns/kills and spills/regions/.

TxDOT and the contractor are required to avoid and minimize impacts to open water areas to the extent practicable, including the Inner Harbor, during construction and demolition of the proposed project. Regardless of the methods chosen to demolish the existing bridge, the contractor would not be authorized to intentionally discharge pieces of the existing bridge, however small, into the Inner Harbor. Incidental discharges shall be minimized to the extent practicable and measures to control these types of discharges would be developed and implemented during all phases of construction and demolition with the potential to impact aquatic habitats.

To prevent impacts to the Whooping Crane, Piping Plover and Red Knot the contractor would be required to conduct pre-construction surveys within the Rincon Channel tidal flats. If one of the bird species is detected during pre-construction surveys, a USFWS approved biologist would monitor for presence of the birds during all phases of construction.

Potential habitat for seven state-listed threatened species occurs within the project area; these species include the Opossum pipefish, Peregrine Falcon, Reddish Egret, White-faced Ibis, White-tailed Hawk, Wood Stork, and Southern yellow bat. During construction, efforts would be made to avoid direct harm to individuals of state-listed or rare species; particularly those most vulnerable to earth moving and de-watering activities. Specific notes would be inserted into the construction plans that indicate the potential presence of these species and instruct the contractor to avoid impacting them. The contractor would be briefed on the species appearance and habitat preferences prior to construction and instructed to cease activities in the vicinity of the protected species, if encountered, for a sufficient amount of time to enable escape or relocation.

To avoid and minimize impacts to aquatic species, waterways would be spanned whenever practicable and appropriate BMPs put in place. When areas must be de-watered, the work site would be isolated to prevent fish and other aquatic species from moving into the construction zone and work activities conducted as quickly as possible to minimize the length of time that flow is modified or interrupted. Prompt and effective erosion control and re-vegetation and restoration of flow lines and grades would

be employed to further minimize impacts. The contractor would return temporary work areas to pre-project conditions as soon as practicable.

9.10.2 Essential Fish Habitat

Coordination with NMFS regarding Essential Fish Habitat (EFH) consultation requirements has been initiated. The implementation of applicable recommendations from NMFS regarding the preservation of Essential Fish Habitat would be the responsibility of the Joint Lead Agencies.

9.10.3 Migratory Bird Treaty Act

Appropriate measures would be taken to avoid adverse impacts on migratory birds and include the following:

- Removing or destroying active migratory bird nests (nests containing eggs and/or young) at any time of the year would be prohibited until the nests become inactive.
- If colonial nesting (for example, swallows) occurs on or in structures, nests would not be removed until all nests in the colony become inactive. A qualified wildlife biologist would be consulted to determine what constitutes a colony in the context of birds nesting on a bridge, culvert or other structure and to examine nests for eggs or young as needed.
- Measures would be utilized, to the extent practicable, to prevent or discourage migratory birds from building nests within portions of the project area scheduled for immediate construction or demolition.
- Inactive nests would be removed from the project area to minimize the potential for reuse by migratory birds.

When practicable, construction or demolition activities would be scheduled outside the typical nesting season (February to October), noting that the prohibitive provisions of the MBTA apply year-round.

9.10.4 Marine Mammal Protection Act

To avoid and minimize potential incidental harassment of marine mammals, the contractor would implement the following:

1. Qualified biologists would monitor the presence of marine mammals during all phases of construction and demolition within open waters of the project area, including the Inner Harbor.
2. Before construction or demolition commences, a preliminary marine mammal impact zone would be established, delineated by a 50-foot radius from the work area if that impact zone would extend into the water. If any marine mammal were to be observed within the appropriate impact zone, the biological monitor would instruct that construction activities cease until it could be determined that the animal had moved beyond the impact zone radius, either through sighting or by waiting until enough time has elapsed (approximately 15 minutes) to assume that the animal has moved beyond the impact zone.

9.11 CULTURAL RESOURCES

9.11.1 Archeological Resources

If unanticipated archeological deposits are encountered during construction, work in the immediate area would cease, and TxDOT archeological staff would be contacted to initiate post-review discovery procedures under the provisions of the PA-TU and Memorandum of Understanding (MOU) between TxDOT and Texas Historical Commission (THC).

9.11.2 Historic Resources

TxDOT would develop programmatic mitigation outlined by the Advisory Council on Historic Preservation in its *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges*, published in the Federal Register on November 16, 2012. In 2014, TxDOT began a multi-year planning process for all historic bridges in the state that integrates public engagement opportunities and bridge management planning efforts to develop and demonstrate effective strategies. TxDOT, the THC and the Historic Bridge Foundation (HBF) worked together to determine which bridges in Texas built between 1945 and 1965 are the most significant. During the summer of 2014, TxDOT jointly conducted a series of open houses to discuss a treatment plan for mid-20th century historic bridges in Texas. This plan separates the bridges into three groups based on their relative historic and/or engineering significance. This approach would mandate the type of compliance and mitigation that TxDOT would apply to projects that resulted in adverse effects to the NRHP-eligible, post-1945 bridges. As part of the Group I Bridges, the Harbor Bridge is an exceptionally important bridge that is significant in more than one evaluation category and therefore its removal would be afforded full review and individual mitigation. TxDOT recently completed its public involvement activities and provided documentation and public engagement materials to the THC and HBF. Therefore, in 2015, TxDOT will coordinate with the THC and consulting parties and finalize individualized mitigation for the Harbor Bridge under this programmatic approach to historic bridges. Complete information about TxDOT's historic bridge program and programmatic bridge mitigation efforts can be found at http://www.txdot.gov/inside-txdot/projects/studies/statewide/historic-bridges.html. There is also information available about the on-going efforts at http://www.thc.state.tx.us/learn/historic-bridges-texas.

9.12 SECTION 4(F)

The Recommended Alternative would require the use Section 4(f) properties, including the Harbor Bridge system, T.C. Ayers Park, and Lovenskiold Park. Mitigation commitments for the use of Section 4(f) properties were developed following coordination with the City of Corpus Christi and the Texas Historical Commission (officials with jurisdiction).

Commitments to offset the project impacts to T.C. Ayers Park include replacement of park functions on the City's closed Washington Elementary School property near the existing park. The new park would include:

- Elements commemorating neighborhood history;
- Two new covered basketball courts;
- Community gardens;
- Playground equipment;
- Baseball backstop;
- Parking lot;
- Overhead trellis structure;
- Bleachers;
- Trail around the park with trailhead;
- Shade tree plantings; and
- Pedestrian lighting.

The remainder of T.C. Ayers Park, including the municipal swimming pool, would be enhanced to include:

- A trail around the park;
- A new pool changing facility;
- Resurfacing of the pool;
- Shade tree plantings; and
- New recreational turf.

Additional enhancements are also proposed at Dr. H.J. Williams Memorial Park in the Hillcrest neighborhood. These enhancements would include:

- Resurfacing the existing basketball court;
- New playground equipment;
- New overhead trellis structure;
- New picnic tables;
- Shade tree plantings; and
- Benches.

Mitigation for the impacts to Lovenskiold Park would be in the form of enhancement of Ben Garza Park, a much larger regional park less than a half-mile away from Lovenskiold Park. Enhancements to Ben Garza Park would include resurfacing the basketball court and resurfacing and restriping the parking lot.

In addition to the development of new park properties and enhancement of existing park properties, TxDOT would provide for enhancement to recreational facilities at the Oveal Williams Senior Center, with details to be determined through continued collaboration with members of the senior center and the City of Corpus Christi.

TxDOT plans to enter into an agreement with the City of Corpus Christi to develop the new Washington Park property and to provide enhancements and improvements to the other park properties serving the minority and low-income community. These enhancements and improvements would be implemented prior to final completion of the proposed project. Funding could be provided through the Corpus Christi

Metropolitan Planning Organization under Category 9–Transportation Alternatives Program, which consists of 80 percent federal funding and 20 percent local funding to be administered through TxDOT. Under the agreement, the City would be responsible for designing, constructing, and maintaining the park improvements.

9.13 HAZARDOUS MATERIALS

Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable local, state, and federal regulations and TxDOT Standard Specifications and Guidelines for handling emergency discovery of hazardous materials.

Activities associated with the use and storage of hazardous materials during construction would be required to conform to TxDOT standards for spill containment and control strategies.

Asbestos issues during structure demolition would be addressed during right of way acquisition prior to construction and applicable asbestos inspections, specification, notification, license, accreditation, abatement, and disposal, would be in compliance with federal, state and local regulations.

Asbestos may also be encountered during demolition and/or renovation of existing bridge structures. The *Texas Department of State Health Services* (DSHS) *Notification Rules* (25 TAC §295.61) state that bridge structures must be inspected by a licensed asbestos inspector prior to demolition or renovation. If asbestos-containing materials above EPA thresholds would be disturbed during construction or renovation, DSHS must be notified at least ten days prior to these activities using the *DSHS Asbestos Demolition/Renovation Notification Form*.

If oil/gas well-related contamination is encountered during construction, any necessary remediation would be conducted prior to continuation of construction activities. If a well is encountered and damaged during construction, the responsible party would be required to correct the damage and remediate contamination resulting from the damage.

If hazardous materials are unexpectedly encountered within the soil or groundwater during construction, appropriate assessment, remediation and management would be conducted in accordance with federal and state regulations.

Arrangements with pipeline operators regarding potential utility relocations would be addressed during the right of way acquisition and negotiation process. In addition, pipeline depths and locations would be clearly marked prior to construction to prevent accidental ruptures.

Approximately 200,000 tons of hydrocarbon-impacted soil was removed from the former Southwestern Oil and Refining Company/Kerr-McGee Refining facility, Terminal 1 (T19/T2) (Triple S Refining Corporation and Greenfield Environmental Multistate Trust, LLC) in 1996. Subsurface penetrations for piers, columns or storm sewers are likely to encounter contaminated soil and groundwater in this area. Excavated soil and pumped groundwater would likely require treatment or disposal, and would be

contained and managed as a non-hazardous waste. A subsurface soil and groundwater investigation would need to be conducted.

Soil and groundwater within the former D.N. Leathers II (T9) site has been impacted by petroleum hydrocarbons and lead from the former Southwestern Oil and Refining Company/Kerr-McGee facility, Terminal 1 (T19/T22). Subsurface penetrations for piers, columns or storm sewers would likely encounter contaminated soil and groundwater in this area. Excavated soil and pumped groundwater would likely require treatment or disposal and would be contained and managed as non-hazardous waste.

Culberson Ditch originates at the intersection of Comanche Street and N. 19th Street and terminates to the north at the Inner Harbor approximately 1,000 feet west of Stroman Street. It flows through T.C. Ayers Park and east of the former Southwestern Oil and Refining Company/Kerr-McGee facility, Terminal 1 site (T19/T22). The Culberson Ditch traverses several bulk petroleum storage terminal properties and the former D.N. Leathers II site (T9); therefore, the constituents of concern for the ditch include the above listed petroleum hydrocarbon COCs plus lead, as lead was also detected in the soil at the D.N. Leathers II site (T9). A surface water, sediment and soil investigation within the Culberson Ditch would be required.

The Recommended Alternative would be in proximity to the Martin Operating Partnership, LP (Koch Pipeline Company, LP) and the approximately 200,000-gallon petroleum product aboveground storage tanks (ASTs) that are located north of Navigation Boulevard, south of Breakwater Avenue and west of US 181. Petroleum product ASTs closest to the proposed right of way may need to be removed. During construction, subsurface penetrations for piers, columns or storm sewers would likely encounter contaminated soil and groundwater in this area. It is likely that excavated soil and pumped groundwater would require treatment or disposal and would be contained and managed as non-hazardous waste.

One or more piers for the Harbor Bridge structure would be excavated in approximately the center of the Port of Corpus Christi Authority Recyclable Transfer Container Yard. Construction activities at this location likely would require dewatering activities. A soil and groundwater quality investigation would be conducted prior to excavation in order that the appropriate mitigation procedures can be incorporated into the Soil and Groundwater Management Plans (SGMPs).

Prior to construction, a hazardous materials management plan that incorporates industry standards and federal and state guidelines for the handling of impacted soils and groundwater would be prepared.

Impacted soils would not be permanently stored on site but characterized and hauled off site to an authorized disposal facility. During excavation, TxDOT standard precautions would be implemented to ensure that impacted soils and groundwater do not migrate away from the site to surrounding properties and neighborhoods.

9.14 ENERGY REQUIREMENTS

The contractor would consider implementing the following energy conservation measures during construction:

- Reusing and recycling of construction materials;
- Maximizing the use of local materials to reduce hauling;
- Carpooling of workers to and from the jobsite;
- Regular maintenance of equipment to ensure proper working order;
- Reducing energy consumption by turning off equipment and vehicles when not in use;
- Minimizing stops and delays by efficient routing of trucks to and from the jobsite and utilizing off-peak travel times to maximize fuel efficiency;
- Minimizing the need for artificial lighting by scheduling construction during daytime hours to the extent practicable; and
- Implementing maintenance of traffic plan in a manner that minimizes lengthy detours or delays for motorists.

9.15 CONSTRUCTION IMPACTS

Maintenance of traffic plans would be implemented to address user impacts including work-zone safety and traffic delays.

The contractor would be required to prepare a demolition plan acknowledging the commitment to avoidance and minimization of impacts noted in **Section 4.22**.

THIS PAGE INTENTIONALLY BLANK