



Environmental Handbook

Water Resources

This handbook provides a regulatory background for and outlines the Texas Department of Transportation (TxDOT) process to document compliance with regulations concerning the management of water resources.

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1.0 Overview

This handbook provides a basic regulatory background for, and outlines in broad strokes, the Texas Department of Transportation (TxDOT) process to document compliance with legal requirements concerning the management of water resources. It provides an overview of the federal and state laws and regulations that apply to water resources in Texas and guidance on determining the process to obtain compliance with these laws and regulations. This handbook will assist practitioners in identifying which legal requirements may be triggered by a specific project, allowing the project sponsor to scope the project appropriately, document compliance, and execute the project in a timely manner. It is not meant to be an exclusive or comprehensive authority on water-related legal requirements. There are many aspects of compliance with water-related legal requirements not covered herein. Applicable state or federal statutes or regulations take precedence over content found in this Handbook.

1.1 Texas Department of Transportation Policy

It is TxDOT policy to ensure that all water-related legal requirements are met. For the purposes of this discussion, the phrase “legal requirement” is understood to mean any federal and/or state law, regulation, or statement with regulatory force that is specific to TxDOT’s management of water resources.

1.2 Applicable Project Types

All phases of a given project – including project initiation, pre-construction, construction, post-construction, and maintenance – require consideration of project effects on water resources; however, not all legal requirements will be applicable to every project. The triggers for determining which regulations apply to a project are located in Section 3.0 through Section 18.0. These sections also describe the process for ensuring compliance with those regulations.

1.3 Responsible Party

The project sponsor is ultimately responsible for compliance with TxDOT policy on the management of water resources. Specific roles and responsibilities may be assigned during scoping.

The project sponsor may be a TxDOT district or division or a local municipality and is responsible for pursuing approval of the project and for providing material for and managing the project file. The department delegate may be a TxDOT district or the TxDOT Environmental Affairs Division (ENV), depending on the NEPA classification of the project.

2.0 Compliance Requirements

TxDOT must comply with NEPA and other federal and state regulations; however, not all regulations are applicable to every project. **Table 1: Water Resources Compliance Overview**, below, identifies and provides a brief summary of applicable federal and state statutes that the project sponsor must consider in addition to NEPA. **Section 3.0** through **Section 18.0** discusses these regulations and the specific actions or settings that trigger the compliance requirements.

Table 1: Water Resources Compliance Overview

Federal and State Regulations*	Applicable Action	Regulatory Agency and Statute	Section in Handbook
Section 401, Clean Water Act (Water Quality Certification) Sec 401 of CWA	Project and/or activity that requires a federal permit or license, that may result in a discharge to waters of the U.S., and/or that requires a TCEQ certification	USACE 33 USC 1251-1387 TCEQ 30 TAC 279	3.0
Section 402, Clean Water Act	Projects that may involve point source pollutant and storm water discharges to surface waters of the U.S.	TCEQ 33 USC 1251-1387	4.0
Texas Pollutant Discharge Elimination System Construction General Permit TPDES CGP	Projects that disturb one or more acre(s) of earth	TCEQ Texas Water Code Chapter 26 and 30 TAC 205	4.0
Texas Pollutant Discharge Elimination System Municipal Separate Storm Sewer System TPDES MS4	Projects that involve work that discharges to a Municipal Separate Storm Sewer System	TCEQ and/or EPA 30 TAC 205 and 30 TAC 305	4.0
Section 404, Clean Water Act	Projects that may involve discharge of dredged or fill material into a water of the U.S.	USACE 33 USC 1251-1387	5.0
Section 408/Section 14, Rivers and Harbors Act	Projects that may involve impacts on a federal flood control project or associated flowage easement	USACE 33 USC 408	6.0
Section 303(d), Clean Water Act, and Memorandum of Understanding with the Texas Commission on Environmental Quality	Project within five linear miles of an impaired assessment unit, and within the watershed of, and draining to that impaired assessment unit	TCEQ 30 TAC 307 TCEQ MOU (see below)	7.0
Memorandum of Understanding with the Texas Commission on Environmental Quality	Specifies the responsibilities of each agency relating to Texas Commission on Environmental Quality review of the potential environmental effects of highway projects	TCEQ 43 TAC 2.301-2.308 Transportation Code Section 201.607	8.0

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Federal and State Regulations*	Applicable Action	Regulatory Agency and Statute	Section in Handbook
Edwards Aquifer Rules	Regulated activities within the Edwards Aquifer Recharge, Contributing, and Transition zones	TCEQ 30 TAC 213	8.0
Trinity River Corridor Development Regulatory Zone – Corridor Development Certificate	Projects that involve work within the Trinity River Corridor Development Regulatory Zone	North Central Texas Council of Governments	9.0
General Bridge Act	Construction or modification of bridges and causeways over waters determined to be navigable by USCG	USCG 33 USC 525-533	10.0
Section 9, Rivers and Harbors Act	Construction or modification, including changes to lighting, of a bridge or causeway over a water body determined to be navigable by USCG	USCG 33 USC 401-406	10.0
Section 10, Rivers and Harbors Act	Work or construction and/or placement of structures in or affecting a USACE navigable water	USACE 33 USC 401-406	11.0
Executive Order 11990 – Protection of Wetlands	Federally undertaken, financed, or assisted construction and improvements in or with significant impacts on wetlands	USDOT DOT Order 5660.1A 23 CFR 777	12.0
Executive Order 11988 – Floodplain Management	All construction of federal or federally-aided buildings, structures, roads, or facilities which encroach upon or affect the base floodplain	USDOT DOT Order 5650.2 23 CFR 650	13.0
Boundary and Water Treaties administered by the International Boundary and Water Commission	Projects that cross or encroach upon the floodway of International Boundary Water Commission right-of-way (ROW) or flood control project	IBWC 22 USC 7	14.0
Wild and Scenic Rivers Act	Construction activities in, across, or adjacent to a river component designated or proposed for inclusion in the National System of Wild and Scenic Rivers	NPS 16 USC 1274	15.0

Federal and State Regulations*	Applicable Action	Regulatory Agency and Statute	Section in Handbook
Coastal Zone Management Act and Texas Coastal Management Program	Projects or activities within the coastal zone as delineated by the coastal management program boundary	NOAA 16 USC 33, 1451-1465 Texas GLO 31 TAC 26	16.0
Coastal Barrier Resources Act	Projects or activities within a unit of Coastal Barrier Resources System	USFWS 16 USC 3501-3510	17.0
Memorandum of Understanding between the Texas Department of Transportation and the Texas General Land Office (GLO)	Specifies the responsibilities of each agency concerning the use of real property, including submerged lands, owned by the State of Texas and managed by GLO	Texas GLO 31 TAC 16 Transportation Code Section 203.052-203.053 and 203.056-203.058	18.0

*If you have questions on these regulations and policies not answered by this handbook, please contact ENV Natural Resource Management Section (NRM) staff at Env_Bio@txdot.gov.

3.0 Section 401 Clean Water Act

3.1 Regulatory Overview

Section 401 of the Clean Water Act (CWA), codified at [33 USC 1341](#), requires any applicant who seeks a permit from a federal agency for an activity that will involve a discharge into waters of the U.S. to first obtain a certification from the State that the discharge will not violate state water quality standards. In Texas, the Texas Commission on Environmental Quality (TCEQ) is the agency that issues certifications under Section 401 of the CWA. TCEQ's rules governing its Section 401 certification program are codified at [30 TAC 279](#).

TxDOT and TCEQ are required by Transportation Code Section 201.607 to maintain a memorandum of understanding (TCEQ MOU) that specifies the responsibilities of each agency relating to TCEQ review of potential environmental effects of transportation projects. The purpose of the TCEQ MOU is "to provide a formal mechanism by which TCEQ reviews transportation projects that have the potential to affect resources within TCEQ's jurisdiction ([43 TAC 2.301-2.308](#)).” Under the TCEQ MOU, a transportation project is defined as a project to construct, maintain, or improve a highway, rest area, toll facility, aviation facility, public transportation facility, rail facility, ferry, or ferry landing ([43 TAC 2.303](#)). The MOU is codified at 43 TAC, Chapter 2, Subchapter I.

3.2 Applicable Projects

Any project that requires authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA or Section 10 of the Rivers and Harbors Act (RHA), or from the U.S. Coast Guard (USCG) under the General Bridge Act/Section 9 of the RHA, must comply with Section 401.

3.3 Procedure

The project sponsor should follow the steps below to illustrate compliance with Section 401 of the CWA. Specific roles, responsibilities, and timelines are assigned during project scoping. Contact the department delegate and/or the ENV Natural Resource Management Section (NRM), if you need assistance following this procedure.

Step One: Evaluate the project based on whether or not it will require authorization under Section 404, Section 10, or Section 9/General Bridge Act. If not, Section 401 of the CWA does not apply, and no further action is necessary. If so, 401 Certification is required. Proceed to Step Two.

Step Two: Analyze impacts and determine the type of 401 Certification required. There are three types of certifications under TCEQ's 401 program:

- A blanket certification for projects that will use certain Nationwide Permits issued by the USACE and that meet certain conditions specified by TCEQ;
- A blanket certification for projects that affect less than three acres of waters in the state or less than 1500 linear feet of streams, do not affect rare and ecologically significant wetlands, and will employ certain best management practices (BMPs) specified by TCEQ (i.e., "Tier I projects"); and
- Projects that do not fall under either of TCEQ's blanket certifications and, therefore, require an individual certification from TCEQ before the federal agency may issue the requested authorization (i.e., "Tier II projects"). Tier II projects also require an alternatives analysis. Note that, for permits issued by the USCG, it has been TxDOT's experience that an individual certification (i.e., Tier II 401 certification) is required.

Step Three: Document impacts and initiate the 401 certification process, which is different depending on which of the three certifications is used:

- To use the blanket certification for certain Nationwide Permits, confirm and document in the project file that the project will meet the conditions specified in TCEQ's letter to the USACE, which is available on TCEQ's 401 Certification website.
- To use the blanket certification for Tier I projects, confirm and document in the project file that the project will use the BMPs specified on the Tier I (Small Projects) checklist, which is available on TCEQ's 401 Certification website. If an individual permit from the USACE is needed, complete the checklist and submit the completed checklist with the permit application.
- To obtain an individual certification (i.e., Tier II), complete the Tier II 401 Certification Questionnaire and Alternatives Analysis Checklist and submit it to TCEQ, per the TCEQ MOU. TCEQ's instructions for submitting the questionnaire and checklist, along with a list of other documents that must be submitted, can be found in the preface to the questionnaire/checklist, which is available on TCEQ's 401 Certification website.

3.4 Documentation

For Categorical Exclusions (CEs), the project file must include documented consideration of Section 401 and describe required compliance activities, if applicable. For Environmental Assessments (EAs) or Environmental Impact Statements (EISs), determinations and findings regarding the outcome of Section 401 compliance must be included in the environmental document. For all projects, the project file must include the environmental permit/certification and commitments, including specific BMPs that will be used to comply with TCEQ's Water Quality Certification requirements, and other resulting commitments, as applicable, prior to letting.

For all projects, documentation must explain how the project will comply with TCEQ's Water Quality Certification requirements, either by confirming that the project will meet the conditions specified by TCEQ for using certain nationwide permits, confirming the use of BMPs required by TCEQ for Tier I projects, or explaining that a Tier II Certification Questionnaire and Alternative Analysis Checklist will be submitted to TCEQ. If a Tier II individual certification is required, documentation must explain that the project has been coordinated under the TCEQ MOU, and include reference to the written coordination exchanges. Specifically list any BMPs that will be used to comply with TCEQ's Water Quality Certification requirements, if known.

4.0 Section 402 of the Clean Water Act

4.1 Regulatory Overview

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) permit program ([33 USC 1342](#)), which is administered by the Environmental Protection Agency (EPA) and regulates point source discharges into waters of the U.S. In Texas, the permit program has been delegated to TCEQ, which established the Texas Pollutant Discharge Elimination System (TPDES) permit program. TCEQ issues the [Construction General Permit](#) (CGP) and Municipal Separate Storm Sewer System (MS4) permits under this program. Although the permits are issued separately – CGP for construction projects and MS4 for operators of MS4s – there is a CGP requirement to notify the operator of any MS4 of an anticipated stormwater discharge, depending upon project location.

4.2 Applicable Projects

Compliance with the TPDES CGP/MS4 is required regardless of NEPA classification.

CGP authorization is required for construction activities that will disturb one acre or more or are part of a larger common plan of development or sale that will disturb one acre or more. Construction activities include soil disturbance activities, such as clearing, grading, and excavating, but do not include routine activities that restore a facility to its original line and grade or hydraulic capacity. Additional guidance can be found on the TCEQ [Stormwater Permits for Construction](#) webpage.

An MS4 is a storm sewer system that includes ditches, curbs, gutters, storm sewers, and similar means of collecting or conveying runoff that do not connect with a wastewater collection system or treatment plant, and that is owned or operated by a public, state, and/or federal agency. TxDOT is both an MS4 operator (under MS4 permit # WQ0005011000) and a developer that has the potential to impact other MS4s. It is this potential to impact other MS4s that must be evaluated and addressed, if applicable, for CGP/MS4 compliance as it relates to transportation projects. Any entity intending to discharge into an existing MS4 must notify the permitted operator in the form of a site notice for small construction activities and a Notice of Intent (NOI) for large construction activities. Additional information can be found in the CGP.

TPDES CGP/MS4 authorization and compliance requirements are independent of, and usually occur after, the NEPA process. Compliance with the CGP generally involves the development of a Storm Water Pollution Prevention Plan (SWP3), usually by the project designer prior to project letting. If a site notice or an NOI is required for CGP/MS4 compliance, it is typically completed by construction staff and must be submitted prior to earth disturbing activities.

4.3 Procedure

Because TPDES CGP/MS4 authorization and compliance requirements occur outside of the environmental clearance process, there is no applicable procedure for environmental staff.

4.4 Documentation

For CEs, no Section 402 documentation is required.

For EAs/EISs, see the EA handbook for required document content.

5.0 Section 404 of the Clean Water Act

5.1 Regulatory Overview

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the U.S. and to restore and maintain the chemical, physical, and biological integrity of these waters. Section 404 is codified at USC, Title 33, Chapter 26, Subchapter IV, Section 1344 ([33 USC 1344](#)). The USACE is responsible for the regulation and enforcement of Section 404, as codified at CFR, Title 33, Chapter II, Parts 320-332 ([33 CFR 320](#)). Oversight of the compliance program and ultimate authority regarding jurisdiction falls to the EPA, as codified at CFR, Title 40, Chapter I, Subchapter H, Part 231 ([40 CFR 231](#)).

A permit from the USACE is required for regulated activities that result in the discharge of dredged or fill material into jurisdictional waters of the U.S.

5.2 Applicable Projects

Compliance with Section 404 of the CWA applies to any TxDOT activity that results in the discharge of dredged or fill material into a water of the U.S., and is required regardless of NEPA classification. The definition for water of the U.S. can be found at [33 CFR 328](#). Definitions of dredged material, fill material, discharge of dredged material, and discharge of fill material can be found at [33 CFR 323.2](#). Technical guidance for how to delineate waters of the U.S. can be found in the [Corps of Engineers Wetlands Delineation Manual](#) and [Regional Supplements](#) to the delineation manual.

5.3 Procedure

The project sponsor should follow the steps below to illustrate compliance with Section 404 of the CWA. Specific roles, responsibilities, and timelines are assigned during project scoping. Contact the department delegate and/or NRM, if you need assistance following this procedure.

Step One: Determine if a permit under Section 404 of the CWA is required. The project sponsor should conduct a desktop analysis based on the project design utilizing United States Geological Survey (USGS) topographical maps, aerial photographs, floodplain maps, National Wetland Inventory maps, National Hydrologic Database maps, Natural Resource Conservation Service soils surveys, and the National Hydric Soils list to identify the existing environment and assess potential impacts to water resources. A field evaluation may be necessary to verify the presence or absence of water resources or regulated features that may not be geographically fixed or mapped. This data should be compiled and utilized to identify and analyze project impacts to waters of the U.S.

Step Two: Determine the type of permit required and the permitting path forward. USACE issues four types of permits for the discharge of dredged or fill material into waters of the U.S. These include Regional General Permits (RGPs), Nationwide Permits (NWP), Letters of Permission (LOPs), and Individual Permits (IPs).

- RGPs and NWPs are issued for minor impacts (typically less than half an acre) to waters of the U.S. TxDOT rarely seeks authorization under an RGP, but routinely seeks authorization under a NWP. The USACE NWP program has more than 50 NWPs, each authorizing specific types of activities. These permits and their General Conditions are available at [82 FR 1860](#) along with the

supporting [NWP Regional Conditions for the State of Texas](#). These documents explain the types of authorized activities and impact limits that are allowable. Some NWPs require a Pre-Construction Notification (PCN) be submitted to the USACE to request authorization and other permits require no PCN (document its use in the TxDOT project file only) or that a PCN be submitted only when certain thresholds are exceeded. General Condition 32 of the NWPs describes the required contents of a PCN, which must include a waters of the U.S. delineation. The USACE has 30-days to determine that the PCN is complete or request additional information that would make it complete. The USACE has 45 days to issue a verification letter authorizing the NWP's use as requested, but TxDOT has made a practice of waiting for the verification letter before impacting waters of the U.S. The 45-day period starts on the date of receipt of the notification in the USACE district office and ends 45 calendar days later, regardless of weekends or holidays. The project sponsor should initiate the PCN process as soon as project impacts can be reasonably estimated, as the process can take several months or longer to complete, despite the 45-day commitment for project reviews.

- LOPs and IPs are issued by the USACE for projects that have a greater impact to a water of the U.S. and that do not qualify for an RGP or a NWP. TxDOT rarely seeks authorization under an LOP, but routinely seeks authorization for large-scale projects under an IP. The project sponsor should initiate the IP process as soon as project impacts can be reasonably estimated, as the process can take one or more years to complete. When requesting an IP (LOPs are categorically excluded), it may be possible to gain efficiency and shorten the permitting timeline by integrating the USACE's NEPA process into TxDOT's environmental review process. The American Association of State Highway and Transportation Officials (AASHTO) practitioner's handbook, [Applying the Section 404\(b\)\(1\) Guidelines in Transportation Project Decision-Making](#), describes how to integrate the Section 404(b)(1) Guidelines into the NEPA process. If desired, and certainly when seeking authorization under an IP, the project sponsor should initiate a pre-application meeting with the USACE to allow for informal discussions during the project planning and scoping process. This can help identify the best permitting path forward and streamline the process itself. The Fort Worth USACE District's [Pre-Application Meeting Request Form](#) can be found on their website. Information about the Galveston USACE District's [Permit Pre-Application Screening](#) can be found on their website.

Step Three: Document expected impacts and permitting requirements as explained in Section 5.4, below.

5.4 Documentation

For all projects, the project file must include documented consideration of Section 404 and describe required compliance activities, if applicable. For all projects, anticipated Section 404 permitting requirements must be documented prior to NEPA approval, if applicable, and applicable reports, permitting correspondence, type of necessary permit/authorization, final approval from the USACE (except in the case of non-reporting NWP), and any resulting commitments must be included in the project file. Final approval from the USACE must include 404 authorization in the form of a PCN or permit application, as well as the resultant verification letter or permit.

In addition to 404 authorization, ENV recommends that Section 408 approval (if applicable, see Chapter 6.0, below) be included in the project file.

Similarly, because compliance with the Fish and Wildlife Coordination Act (FWCA) is achieved through agency coordination during the permitting process, ENV recommends that copies of correspondence with agencies regarding compliance with FWCA received during the USACE

permitting process are included in the project file, if applicable. For more information on FWCA compliance, see the [Ecological Resources Handbook](#) in the TxDOT Natural Resources Toolkits.

For EAs/ EISs, see the EA handbook for required document content.

All projects that require an IP, regardless of NEPA classification, must demonstrate compliance with EPA's Section 404(b)(1) Guidelines, which are codified at [40 CFR 230](#). These guidelines allow the discharge of dredged or fill material only if there is no practicable alternative that would have less adverse effect on the aquatic ecosystem, as demonstrated in the project's alternatives analysis. An alternative is practicable if it is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." The guidelines allow for rejection of alternatives that may be practicable, but that have other significant adverse environmental consequences. The IP application should discuss whether there is any practicable alternative to the impact(s) being proposed.

6.0 Section 408/Section 14 of the Rivers and Harbors Act

6.1 Regulatory Overview

Section 14 of the RHA is commonly referred to as Section 408 because it is codified in USC Title 33, Chapter 9, Subchapter I, Section 408 ([33 USC 408](#)). Section 408 authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers of the USACE, to grant permission for the alteration, occupation, or use of a USACE civil works project. Before authorization, the Secretary must determine that the activity will not be injurious to the public interest or impair the usefulness of the project.

If the Section 408 property is also a water of the U.S. and a Section 404 permit is required, Section 408 authorization is required prior to Section 404 authorization. In cases of a NWP, this rule also applies to authorization under the Section 10 of the RHA (please see Chapter 11.0, below), if applicable.

6.2 Applicable Projects

Compliance with Section 408 applies to any TxDOT activity that involves alterations to, or temporarily or permanently occupies or uses, any USACE federally authorized civil works project (e.g., sea walls, bulkheads, reservoirs, levees, wharfs, or other federal civil works projects, or associated federal land [fee simple] or easements), regardless of NEPA classification.

The 408 review and authorization process is not considered an environmental issue unless a subsequent Section 404 permit is required. Generally, the Section 408 review process is handled by hydraulic and/or design engineers, and environmental district and division staff track and assist, as needed and related to the Section 404 permitting process.

6.3 Procedure

The project sponsor should follow the steps below to illustrate compliance with Section 408. Contact the department delegate and/or NRM, if you need assistance following this procedure.

Step One: Determine whether or not the project will require a Section 408 authorization. The project sponsor should conduct a desktop analysis to determine if there are any federal civil works projects that would be impacted by the transportation project. If it is unclear whether or not the transportation project would intersect with or otherwise alter or impact a federal civil works project, including any unmarked easements, contact the regulatory branch of the USACE district having Section 404

jurisdiction in order to inquire. Section 404 and Section 408 jurisdiction are not always geographically the same, but the Section 404 staff will be able to tell you whether or not a federal civil works project is located in the transportation project area and what USACE district (operations and maintenance division) has jurisdiction. It should be noted that USACE easements are not depicted on the majority of publicly available mapping resources. In some cases, the mapping might show the transportation project ROW bypassing a federal civil works project (e.g., a reservoir) and, in these and similar cases, even when seemingly far from the federal civil works project in question, it is imperative that the project sponsor contact the USACE directly in order to determine if the transportation project would intersect an unmarked easement for the federal civil works project.

Step Two: If the project would not impact a federal civil works projects, then the procedure is complete. If the project would impact a federal civil works project, the project sponsor should consult NRM, alert the hydraulic and/or design engineers on the transportation project, and coordinate directly with the USACE manager of the federal civil works project (e.g., USACE lake manager) to work through the Section 408 authorization. The Section 408 process is led by the USACE operations and maintenance division. Typically, once the Section 408 review is underway, the USACE manager and the operations and maintenance division refer the applicant to the USACE regulatory branch to begin the Section 404 process.

Step Three: Document expected Section 408 impacts and authorization requirements as explained below in Section 6.4.

6.4 Documentation

Because Section 408 review and authorization occur outside of the environmental clearance process as a pre-requisite, when applicable, for Section 404 authorization, documentation of Section 408 authorization is not required to be in the project file. However, ENV recommends that Section 408 authorization, if applicable, be included in the project file. For EA/EISs, if Section 408 applies, see the EA handbook for required document content.

7.0 Section 303(d) of the Clean Water Act / Impaired Waters

7.1 Regulatory Overview

Section 303(d) of the CWA requires states, territories, and authorized tribes to report the status of the “states” waters to EPA ([33 USC 1251–1387](#)). The law requires these entities to establish priority rankings for waters listed in the report and to develop total maximum daily loads (TMDLs) of constituents of concern for impaired waters, which do not meet water quality standards set and implemented by the reporting entity. Impaired waters are divided into assessment units, and management strategies are planned and implemented for the assessment units. In Texas, TCEQ is the agency responsible for maintaining the 303(d) list, setting and implementing water quality standards, and reporting the status of the state’s waters to EPA ([30 TAC 307](#)).

TxDOT and TCEQ are required by Transportation Code Section 201.607 to maintain an MOU (TCEQ MOU) that specifies the responsibilities of each agency relating to TCEQ review of potential environmental effects, including effects on all impaired waters, of transportation projects. Under the TCEQ MOU, a transportation project is a project to construct, maintain, or improve a highway, rest area, toll facility, aviation facility, public transportation facility, rail facility, ferry, or ferry landing ([43 TAC 2.303](#)). The purpose of the TCEQ MOU is “to provide a formal mechanism by which TCEQ reviews transportation projects that have the potential to affect resources within TCEQ’s jurisdiction ([43 TAC 2.301-2.308](#)).” The MOU between TxDOT and TCEQ is codified at 43 TAC, Chapter 2, Subchapter I.

Section 303(d) waters, listed as Category 5 waters, are a subset of all impaired waters that TCEQ manages. Category 4 waters are the other subset of impaired waters and, under the TCEQ MOU, potential project-related impacts of certain transportation projects must be considered for all impaired waters, including Category 4 and Category 5 waters (not just 303(d)/Category 5 waters). It should be noted that there is an exception under the TCEQ MOU for Category 4c waters, which are impaired due to pollution, not pollutants, and for which listing status would not be changed through the TMDL process. The list of all impaired waters can be found in the current, EPA-approved [Texas Integrated Report Index of Water Quality Impairments](#). For more information about the TCEQ's water quality standards, refer to the TCEQ [Texas Surface Water Quality Standards Webpage](#). Refer to [TCEQ's Surface Water Quality \(Segments\) Viewer](#) for a map of all water bodies assessed by TCEQ.

7.2 Applicable Projects

All projects, regardless of NEPA classification level, must not cause or contribute to impairment under Section 303(d) of the CWA. Compliance, defined as not discharging a constituent of concern to an impaired water, is achieved by following the requirements of the CGP. For reference, CGP compliance is required on all transportation projects.

Under the TCEQ MOU, coordination for impaired waters is never required for CE-level projects. Coordination is always required for EIS-level projects. For EA-level projects, coordination is required for any project that is located within five (5) linear miles (not stream miles) of an impaired assessment unit AND is located within the watershed of that unit AND drains to that unit. Written reevaluations for transportation projects require coordination only if the earlier coordination is no longer valid as a result of project changes.

7.3 Procedure

The project sponsor shall follow the steps below to illustrate compliance with the TCEQ MOU's coordination requirements. Contact the department delegate, NRM, and/or the Project Delivery Section of ENV (PD), if you need assistance following this procedure.

Step One: For EAs, reevaluations of EAs, or EIS projects, determine if the project is or is not located within five (5) linear miles (not stream miles) of an impaired assessment unit AND if the project is located within the watershed of that unit AND drains to that unit. The project sponsor shall access the list of all impaired waters found in the current, EPA-approved, Texas Integrated Report Index of Water Quality Impairments in determining the project's proximity to all impaired waters (excluding Category 4c waters).

For an EA that is **not** located within five (5) linear miles (not stream miles) of an impaired assessment unit, within the watershed of that unit, and does not drain to that unit, no coordination is required and the procedure is complete. Document as described below.

If the project is an EIS or an EA located within five (5) linear miles (not stream miles) of an impaired assessment unit AND if the project is located within the watershed of that unit AND drains to that unit, coordination is required. Proceed to Step Two, below.

Step Two: Conduct coordination. The project sponsor shall alert the department delegate of the need to coordinate with TCEQ under the TCEQ MOU. The department delegate shall contact the PD Section of ENV to initiate coordination with TCEQ. This is normally done after an EA has been approved for public circulation or, for an EIS, after the Draft Environmental Impact Statement (DEIS) has been signed. TCEQ has 30 days to review the document and provide comments, but may request an extension to 45 days. TxDOT shall provide a written response to any comments. All

comments received within 30 days (or 45 days upon request) from TCEQ must be addressed prior to NEPA approval.

Document the results of coordination in the final EA/EIS and in the project file, as outlined below.

7.4 Documentation

For CEs, no Section 303(d) / impaired waters documentation is required. Compliance is achieved by following the requirements of the CGP.

For EAs/EISs, see the EA handbook for required document content.

8.0 Edwards Aquifer

8.1 Regulatory Overview

There are three legal requirements that must be addressed when projects have potential to affect the Edwards Aquifer. These legal requirements include the Edwards Aquifer Rules, the Safe Drinking Water Act, and the TCEQ MOU.

Edwards Aquifer Rules

The TCEQ administers the Edwards Aquifer Protection Program to prevent pollution of the Edwards Aquifer, an important drinking water source for Central Texas communities, and its hydrologically connected surface streams in order to protect groundwater use and maintain Texas surface water quality standards. The program is implemented through the Edwards Aquifer Rules, which are codified at [30 TAC 213](#). The rules apply to regulated (e.g., construction-related and post-construction) activities and require an application be submitted to, and approved via letter by, the TCEQ for projects located within specific geographic areas identified as the Edwards Aquifer Recharge Zone, Edwards Aquifer Contributing Zone, and Edwards Aquifer Transition Zone. These zones are located in portions of the following eight (8) counties: Medina, Bexar, Comal, Kinney, Uvalde, Hays, Travis, and Williamson. TCEQ provides an [online map viewer](#) that may be used to determine whether a project is located over the recharge and/or contributing zone(s), and shapefiles of the Edwards Aquifer regulatory boundary may be downloaded from the [TCEQ GIS Webpage](#). The term “regulated activities” is defined at [30 TAC 213.3\(28\)](#) and [30 TAC 213.22\(6\)](#).

It should be noted that the following activities are not regulated by the Edwards Aquifer Rules:

- Clearing of vegetation without soil disturbance
- Agricultural activities, except feedlots/concentrated animal feeding operations that are regulated under Chapter 321 of this title (relating to Control of Certain Activities by Rule)
- Activities associated with the exploration, development, and production of oil, gas, or geothermal resources under the jurisdiction of the Railroad Commission of Texas;
- Routine maintenance of existing structures that does not involve additional site disturbance, such as, but not limited to:
 - The resurfacing of existing paved roads, parking lots, sidewalks, or other development-related impervious surfaces; and
 - The building of fences, or other similar activities in which:
 - (a) there is little or no potential for contaminating groundwater; or
 - (b) there is little or no change to the topographic, geologic, or existing sensitive features; or

- Construction of single-family residences on lots that are larger than five acres, where no more than one single-family residence is located on each lot.

It should also be noted that regulated activities over the transition zone include only those related to aboveground and underground storage tanks (ASTs and USTs, respectively). Because most transportation projects do not involve activity related to an AST or a UST, the remainder of this chapter's discussion of the Edwards Aquifer Rules will not include the transition zone (however, the transition zone is included in this chapter's discussion of the TCEQ MOU). If your project includes activity related to an AST or a UST, consult NRM for guidance.

Safe Drinking Water Act / Sole Source Aquifers

The EPA has determined under Section 1424(e) of the Safe Drinking Water Act (PL 93-523), that the Edwards Aquifer is a sole source aquifer through two separate designations. First, in 1975, EPA designated that part of the Edwards Aquifer that exists in the San Antonio area as a sole source aquifer. Edwards I consists of a recharge zone and streamflow source area. Second, in 1988, EPA designated that part of the Edwards Aquifer that exists in the Austin area ("Edwards II") as a sole source aquifer. Edwards II consists of a recharge zone, streamflow source area, and artesian zone.

Edwards I and Edwards II are located in portions of the following 14 counties: Medina, Bexar, Comal, Kinney, Uvalde, Hays, Travis, Blanco, Edwards, Real, Kerr, Bandera, Gillespie, and Kendall. In June of 2018, TxDOT and EPA, Region 6 entered into a Memorandum of Understanding Between the Environmental Protection Agency, Region 6 and the Texas Department of Transportation Regarding EPA's Review of Projects Potentially Affecting the Edwards Aquifer ("[Sole Source Aquifer - Safe Drinking Water MOU](#)") that describes the consultation and review process for federal-aid highway projects that may affect water quality in designated sole source aquifers. The MOU requires certain federal-aid highway projects to be coordinated with EPA if they are located within the project review areas for Edwards I and/or Edwards II, as shown in the [Sole Source Aquifer - Safe Drinking Water MOU](#) and are available for download at [ARCGIS](#). The review areas for Edwards I and II consist of the recharge zones and streamflow source areas only; projects located within the Edwards II artesian zone need not be coordinated. It should be noted that the project review areas for Edwards I and Edwards II are different than the Edwards Aquifer regulatory boundary described in the Edwards Aquifer Rules.

TCEQ MOU

TxDOT and TCEQ are required by Transportation Code Section 201.607 to maintain an MOU (TCEQ MOU) that specifies the responsibilities of each agency relating to TCEQ review of potential environmental effects of transportation projects. The MOU is codified at 43 TAC, Chapter 2, Subchapter I ([43 TAC 2.301-2.308](#)). Under the TCEQ MOU, certain transportation projects require coordination with the TCEQ, and a transportation project is defined as a project to construct, maintain, or improve a highway, rest area, toll facility, aviation facility, public transportation facility, rail facility, ferry, or ferry landing ([43 TAC 2.303](#)).

8.2 Applicable Projects

Edwards Aquifer Rules

Compliance with the Edwards Aquifer Rules is required, regardless of NEPA classification, for any regulated activities located in whole or in part within the Edwards Aquifer Recharge and Contributing Zones, or both. Regulated activities include, but are not limited to, the following:

- Construction of roads, highways, and railroads

Water Resources

- Clearing, excavation, and any other activities that alter or disturb the topography, geologic, or existing recharge characteristics or existing storm water runoff characteristics of a site
- Activities that may pose a potential for contaminating the Edwards Aquifer and hydrologically connected surface streams

Safe Drinking Water Act / Sole Source Aquifers

Non-federal projects are exempt from compliance with the [Sole Source Aquifer - Safe Drinking Water MOU](#). Coordination under the MOU is required for any federally funded project that meets all three of the following:

- is partially or wholly located within the boundary of the EPA-designated Edwards I Streamflow Source Area, Edwards I Recharge Zone, Edwards II Streamflow Source Area, or Edwards II Recharge Zone;
- is the subject of an environmental assessment or environmental impact statement; and,
- consists of one or more of the following project types:
 - ♦ a new controlled access freeway;
 - ♦ a highway project of four or more lanes on a new location;
 - ♦ construction or extension of a fixed transit facility (e.g., rapid rail, light rail, commuter rail, bus rapid transit) that will not be located within an existing transportation right-of-way; or
 - ♦ new construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility.

TxDOT may, at its discretion, submit for EPA Region 6's review, any other federally funded TxDOT project for which TxDOT determines such review is appropriate. Refer to the [Sole Source Aquifer - Safe Drinking Water MOU](#) for additional guidance.

TCEQ MOU

Under the TCEQ MOU, coordination is never required for CE-level projects. Coordination is always required for EIS-level projects. For EA-level projects, coordination is required for any project that is located within the Edwards Aquifer Recharge Zone, Edwards Aquifer Contributing Zone, and/or Edwards Aquifer Transition Zone. Written reevaluations for transportation projects require coordination only if the earlier coordination is no longer valid as a result of project changes.

8.3 Procedure

The project sponsor shall follow the steps below to illustrate compliance with the Edwards Aquifer Rules, Safe Drinking Water Act, and TCEQ MOU. Contact the department delegate, NRM, and/or PD, if you need assistance following this procedure.

Edwards Aquifer Rules

Step One: Using the aforementioned resources, determine whether or not the project is located within the Edwards Aquifer Recharge Zone and/or Edwards Aquifer Contributing Zone, and whether or not it will involve a regulated activity. If the project is not located within either zone and/or does not involve a regulated activity, no further action is necessary; document as described below. If the project is located within the Edwards Aquifer Recharge Zone and/or Edwards Aquifer Contributing Zone and involves a regulated activity, proceed to Step Two below.

Step Two: Determine the type of application required, based upon project location, as follows:

Water Resources

- If the project involves a regulated activity in the Edwards Aquifer Recharge Zone only, a Water Pollution Abatement Plan (WPAP) must generally be submitted to and approved by TCEQ in order to proceed with the regulated activity. In some instances, an Exception Request Form/Checklist may be submitted in lieu of the WPAP.
- If the project involves a regulated activity that disturbs 5 acres or more in the Edwards Aquifer Contributing Zone only, or is part of a larger common plan of development or sale with the potential to cumulatively disturb 5 acres or more in the Edwards Aquifer Contributing Zone only, a Contributing Zone Plan (CZP) must be submitted to, and approved by, TCEQ in order to proceed with the regulated activity. In some instances, an Exception Request Form/Checklist may be submitted in lieu of the CZP.
- If the project involves a regulated activity in both the Edwards Aquifer Recharge Zone and Edwards Aquifer Contributing Zone, a WPAP must be submitted to, and approved by, TCEQ in order to proceed with the regulated activity. In some instances, an Exception Request Form/Checklist may be submitted in lieu of the WPAP.

Step Three: Prepare the required application and submit it to the TCEQ. See the TCEQ [website](#) for their most current procedures, manuals, guidance, forms, and additional resources related to the Edwards Aquifer application process. Authorization may occur after NEPA clearance but should be obtained prior to project letting. Document as described below.

Safe Drinking Water Act / Sole Source Aquifers

Step One: Evaluate the project based on the source of funding (i.e., federal or non-federal), NEPA classification, applicable project types described above, and project location (i.e., project is or is not located in the Edwards I and Edwards II project review areas), and determine if the project is subject to the [Sole Source Aquifer - Safe Drinking Water MOU](#).

If the project is not subject to the Sole Source Aquifer - Safe Drinking Water MOU, the procedure is complete. Document as described below.

If the project is subject to the Sole Source Aquifer - Safe Drinking Water MOU, and the project is a project type that must be coordinated, proceed to Step Two, below.

Step Two: The project sponsor shall send the notice of availability of the draft EA or draft EIS along with a paper or electronic copy of the draft EA or draft EIS to the EPA for evaluation and comment in accordance with the Sole Source Aquifer - Safe Drinking Water MOU. Document as described below.

TCEQ MOU

Step One: Evaluate the project based on the applicable project types described above (i.e., CE, EA, EIS, or reevaluation) and project location (i.e., project is or is not located in the Edwards Aquifer Recharge Zone, Edwards Aquifer Contributing Zone, and/or Edwards Aquifer Transition Zone), and determine if coordination with TCEQ is required.

If coordination is not required, the procedure is complete. Document as described below.

If coordination is required, proceed to Step Two, below.

Step Two: The project sponsor shall alert the department delegate of the need to coordinate with TCEQ under the TCEQ MOU. The department delegate shall contact the Project Delivery Section of ENV to initiate coordination with TCEQ. This is normally done after an EA has been approved for public circulation or, for an EIS, after the DEIS has been signed. TCEQ has 30 days to review the document and provide comments, but may request an extension to 45 days. TxDOT shall provide a written response to any comments. All comments received within 30 days (or 45 days upon request)

from TCEQ must be addressed prior to NEPA approval. Document the results of coordination in the final EA/EIS and in the project file, as outlined below.

8.4 Documentation

The project file must include documented consideration of Edwards Aquifer-related legal requirements and describe required compliance activities, if applicable.

Edwards Aquifer Rules

For CEs, the project file must include documented consideration of Edwards Aquifer-related regulations and describe required compliance activities, if applicable.

For EAs/EISs, see the EA handbook for required document content. The outcome of compliance efforts with applicable Edwards Aquifer-related regulations, including all permitting correspondence and any resulting commitments, must be documented in the project file.

Safe Drinking Water Act / Sole Source Aquifers

For CEs, no documentation is required.

For EAs and EISs, see the EA handbook for required document content.

TCEQ MOU

For CEs, coordination with under the TCEQ MOU is not required. Therefore, no TCEQ MOU documentation is required.

If an EA/EIS project is located in the recharge, transition, or contributing zones of the Edwards Aquifer, see the EA handbook for required document content.

9.0 Trinity River Corridor Development

9.1 Regulatory Overview

The Trinity River Corridor Development Certificate (CDC) process establishes a set of common regional criteria and procedures for development within the Trinity River Corridor. The goal of the CDC process is the stabilization of flooding risks along the Trinity River Corridor in North Central Texas. The CDC process does not prohibit floodplain development, but ensures that any development that does occur in the floodplain will not raise flood water levels or reduce flood storage capacity.

9.2 Applicable Projects

The CDC process is a local regulation and therefore not applicable to state or federal projects. The USACE does not require a CDC in relation to any CWA Section 404 permits or 408 permission.

9.3 Documentation

Documentation of Trinity River CDC compliance is not required.

10.0 General Bridge Act and Section 9 of the Rivers and Harbors Act

10.1 Regulatory Overview

The USCG regulates bridges and causeways over navigable waters (as defined at [33 CFR 2.36](#)) under the authority of the General Bridge Act (GBA) ([33 USC 525-533](#)) and Section 9 of the RHA ([33 USC 401-406](#)). The USCG issues bridge permits and bridge permit exemptions for bridges and causeways and navigational lighting authorizations and navigational lighting exemptions for lighting and signals on these bridges and causeways. Lights and signals must be approved by the USCG prior to bridge construction activity and must be maintained in accordance with the requirements of the regulations at [33 CFR 118](#). The USCG approves the location and plans of these bridges and causeways, and associated lighting and signals, and imposes conditions relating to construction, maintenance, and operation in the interest of public navigation. Refer to the [USCG website](#) to access the [Bridge Permit Application Guide](#) for permitting procedures and guidance.

Federal Highway Administration (FHWA) regulations pertaining to navigational clearances for bridges and procedures for USCG coordination are codified in the CFR, Title 23, Chapter I, Subchapter G, Part 650 (23 CFR 650), in Subpart H, which is [23 CFR 650.801-650.809](#).

10.2 Applicable Projects

Projects involving the construction, reconstruction, rehabilitation, and replacement of bridges and causeways, and associated navigational lighting and signals, over navigable waters are subject to compliance with the GBA and Section 9 of the RHA. Bridge permits and navigational lighting authorizations are typically issued for projects over waterways that are used day and night by commercial vessels or vessels that are more than 21 feet long. Bridge permit and navigational lighting exemptions are typically issued for projects over waterways that are used only during the daytime and by recreational vessels or vessels less than 21 feet long. The bridge permit and bridge lighting plan are separate applications.

Early coordination with the USCG may be helpful, but the final application or other requests may not be submitted until final design (i.e., 90 percent plans), and permitting may take six months or more.

10.3 Procedure

The project sponsor should follow the steps below to illustrate compliance with the GBA and Section 9 of the RHA. Specific roles, responsibilities, and timelines are assigned during project scoping. Contact the department delegate and/or NRM for assistance following this procedure.

Step One: Determine whether the project involves construction activities associated with a bridge or causeway over a navigable water. Review the project description to determine if there would be a bridge or causeway involved, and contact the USCG via email (D08-DG-D8DPBAI@uscg.mil) to determine whether the bridge or causeway is located over a navigable water. Include the project description and location in the email. If the project does not involve a bridge or causeway that is located over a navigable water, the procedure is complete except for documentation. If the project does involve a bridge or causeway that is located over a navigable water, proceed to Step Two.

Step Two: Determine whether you need a bridge permit or bridge permit exemption, and navigational lighting authorization or navigational lighting exemption.

- Projects over waterways that are used day and night by commercial vessels or vessels that are more than 21 feet long typically require a bridge permit and a navigational lighting authorization.

- Projects over waterways that are used only during the daytime and by recreational vessels or vessels less than 21 feet long typically qualify for a bridge exemption and a navigational lighting exemption. For FHWA-funded projects, the request for an exemption is submitted to FHWA which, in turn, coordinates the request with the USCG (. For non-FHWA-funded projects, the project sponsor would work directly with the USCG.

For projects within the CMP boundary - If the proposed project is located within the Coastal Zone Management Program (CMP) boundary, a CMP Consistency Certification Letter from the Texas General Land Office (GLO) is required. If this is the case, district environmental staff will follow the steps below to obtain a CMP Consistency Certification Letter from the GLO.

District environmental staff completes the Consistency with the Texas Coastal Management Program (TCMP) application packet. The TCMP application packet must include the following:

- CMP Coordination Letter with the project description
- Project Location Map
- Project Plan Sheets

District environmental staff transmits the completed TCMP application packet to the Natural Resources Management (NRM) CMP point of contact (POC) for review.

The NRM CMP POC will submit the completed TCMP application packet to the GLO.

The GLO will review the TCMP application packet and post the TCMP application packet on the Texas General Land Office's Public Notices site for a 30-day comment period. If the TCMP application packet for the proposed TxDOT project does not receive any public comments the GLO will issue a CMP Consistency Certification letter to the district environmental staff to include with the USCG bridge permit application package.

If there is any uncertainty throughout the procedure, please contact the USCG via email (D08-DG-D8DPBAI@uscg.mil) to determine if a water is navigable, whether a bridge permit or bridge permit exemption is required, and/or whether a navigational lighting authorization or exemption is required.

Step Three: If you have not already, initiate coordination with the USCG. Early coordination may be helpful in order to address any considerations prior to final design and application/request submittal. Otherwise, initiate coordination at the time of submittal.

Step Four: Document the expected USCG permitting requirements as described below.

10.4 Documentation

For all projects, the project file must include documented consideration of GBA/Section 9 of the RHA and describe required compliance activities, if applicable. For all projects, anticipated GBA/Section 9 permitting requirements must be documented prior to NEPA approval, if applicable, and applicable submittals and final approval from the USCG must be included in the project file.

For EAs/ EISs, see the EA handbook for required document content.

11.0 Section 10 of the Rivers and Harbors Act

11.1 Regulatory Overview

The RHA is codified at [33 USC 401-406](#) and addresses projects and activities in navigable waters and harbor and river improvements. The regulations implementing Section 10 of the RHA are codified

at CFR, Title 33, Chapter II, Part 322 ([33 CFR 322](#)). Section 10 of the RHA requires authorization from the USACE if the project involves structures or work in or over any navigable water, as defined by 33 CFR 329, and/or any obstruction or alteration of these waters. Section 10 permits are primarily intended to preserve the course, location, condition, or capacity of navigable waters.

11.2 *Applicable Projects*

Structures (such as piers, wharfs, breakwaters, bulkheads, jetties, weirs, transmission lines, etc.) and work (such as dredging or disposal of dredged material, excavation, filling, or other modifications) in navigable waters require Section 10 RHA permits.

The USACE has developed a [list of navigable waters](#) that outlines all waters that are regulated under Section 10 of the RHA within the Fort Worth, Albuquerque, and Tulsa USACE Districts in Texas. Navigable waters in the area regulated by the Galveston USACE District are determined on a case-by-case basis by the Galveston USACE District, and are not included on this list.

11.3 *Procedure*

The project sponsor should follow the steps below to illustrate compliance with Section 10 of the RHA. Specific roles, responsibilities, and timelines are assigned during project scoping. Contact the department delegate and/or NRM, if assistance is needed following this procedure.

Step One: Evaluate the project based on the applicability described above and determine if authorization under Section 10 of the RHA is required. If Section 10 of the RHA does not apply, no further action is necessary except for documentation, as described below. If coverage under Section 10 of the RHA is required, proceed to Step Two.

Step Two: Analyze impacts. Section 10 impacts are typically authorized under the same permit issued by the USACE under Section 404 of the CWA (please see **Section 5.0** of this Handbook for more information on 404 permitting). However, some NWP's do not authorize Section 10 impacts. The text of the NWP will indicate whether it does or not. It is advisable to choose a Section 404 permit that also authorizes Section 10 impacts.

Step Three: Document impacts and expected RHA Section 10 permitting requirements as outlined below. If authorization from the USACE is required, initiate the permitting process once detailed project design information is available. When written approval from the USACE is necessary, it should be obtained prior to project letting but may occur after the NEPA decision.

11.4 *Documentation*

For CEs, the project file must include documented consideration of Section 10 of the RHA and describe required compliance activities, if applicable. For EAs/EISs, determinations and findings regarding the outcome of Section 10 of the RHA compliance must be included in the environmental document. For all projects, the expected Section 10 permitting requirements, at a minimum, must be documented in the project file prior to environmental clearance. All permitting correspondence, final approval from the USACE, and any resulting commitments must be documented in the project file prior to project letting.

For EAs/EISs, see the EA handbook for required document content.

12.0 Executive Order (EO) 11990 – Protection of Wetlands

12.1 Regulatory Overview

The purpose of [EO 11990](#) is “to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.” To summarize, EO 11990 prohibits new construction in wetlands unless (1) there is no practicable alternative, and (2) the project includes all practicable measures to minimize impacts.

Policy and procedures for the evaluation and mitigation of wetland impacts resulting from federally funded projects are outlined in [23 CFR 777](#). To comply with EO 11990, the federal Department of Transportation promulgated DOT Order 5660.1A.

12.2 Applicable Projects

Compliance with EO 11990 is required for projects that are federally undertaken, financed, or assisted and would result in new construction in wetlands. For state projects, EO 11990 does not apply.

12.3 Procedure

The project sponsor should follow the steps below to illustrate compliance with EO 11990. Specific roles, responsibilities, and timelines are assigned during project scoping. Contact the department delegate and/or NRM, if assistance is needed following this procedure.

Step One: Determine if EO 11990 applies (see Section 12.2, above). If EO 11990 does not apply, document as described below. If EO 11990 does apply, proceed to Step Two, below.

Step Two: The project sponsor shall conduct an alternative analysis to demonstrate that there is no practicable alternative to the wetland impact and that all practicable measures have been taken to minimize harm to the wetland. This must be completed prior to NEPA approval.

Step Three: Document the analysis and findings as outlined below in Section 12.4.

12.4 Documentation

For all projects, if the proposed action is located in wetlands, there must be a finding in the project file for CEs and in the environmental document for EAs/EISs that there are no practicable alternatives to construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands. Supporting documentation and/or a reasoned justification of no practicable alternatives to construction in wetlands must be included. To illustrate that there is no practicable alternative, the finding statement may refer back to the [CWA 404\(b\)\(1\) Guidelines](#), which allow for rejection of alternatives that may be practicable, but that have other significant adverse environmental consequences. Any resulting commitments must be documented in the project file.

13.0 Executive Order (EO) 11988 – Floodplain Management

13.1 Regulatory Overview

Executive Order 11988 – Floodplain Management directs each federal agency to take action to reduce the risk of losses associated with floods, to minimize the impact of floods on human health and safety, and to preserve the beneficial values of floodplains. Compliance with EO 11988 is required for projects that are federally undertaken, financed, or assisted and that involve a floodplain

encroachment, which is an action within the limits of the base floodplain. Compliance with EO 11988 is required regardless of NEPA classification.

FHWA implements EO 11988 through CFR, Title 23, Chapter I, Subchapter G, Part 650 ([23 CFR 650](#)), Subpart A, which prescribes “policies and procedures for the location and hydraulic design of highway encroachments on flood plains, including direct Federal highway projects administered by the FHWA” (23 CFR 650.101). Section 650.113 provides that a “proposed action which includes a significant encroachment shall not be approved unless the FHWA finds that the proposed significant encroachment is the only practicable alternative.” Section 650.113 further requires that this finding be included in any final environmental impact statement or finding of no significant impact. Section 650.105(q) defines a “significant encroachment” as “a highway encroachment and any direct support of likely base flood-plain development that would involve one or more of the following construction or flood-related impacts:

- (1) a significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or provides a community’s only evacuation route.
- (2) a significant risk, or
- (3) a significant adverse impact on natural and beneficial flood-plain values.”

If a project does not include a “significant encroachment,” then the “only practicable alternative finding” required by FHWA’s rules implementing EO 11988 is not required (23 CFR 650.113).

TxDOT’s policies and procedures for addressing floodplain impacts are provided in the [TxDOT Hydraulic Design Manual](#). These policies and procedures are consistent with the requirements of EO 11988.

13.2 Applicable Projects

Compliance with EO 11988 is only required for projects that are federally undertaken, financed, or assisted and encroach upon or affect a floodplain ([23 CFR 650.105](#)), regardless of whether or not the nearest community participates in the NFIP. Non-federal projects are exempt from compliance with EO 11988.

If the project occurs within a community that participates in the NFIP, the project sponsor should utilize Federal Emergency Management Agency (FEMA) maps to determine if the project would encroach upon the base floodplain.

13.3 Procedure

Compliance with EO 11988 is addressed programmatically through the implementation of the [TxDOT Hydraulic Design Manual](#), which includes notification and coordination with local floodplain administrators. Adherence to the TxDOT Hydraulic Design Manual ensures that a project will not result in a “significant encroachment” as defined by FHWA’s rules implementing EO 11988 at 23 CFR 650.105(q). Therefore, it is not necessary for any TxDOT project to include the “only practicable alternative finding” required by FHWA’s rules implementing EO 11988 at 23 CFR 650.113.

13.4 Documentation

For CEs, there is no project-specific documentation required under EO 11988, as compliance is achieved on a programmatic basis through the TxDOT Hydraulic Design Manual.

For EAs/EISs, see the EA handbook for required document content.

14.0 International Boundary and Water Commission Licenses

14.1 Regulatory Overview

The International Boundary Water Commission (IBWC) is responsible for implementing various boundary and water treaties between the U.S. and Mexico. A list of the water treaties is available on the IBWC [Treaties between the U.S. and Mexico](#) webpage. Projects that cross or encroach upon the floodplains of IBWC flood control projects or ROW require a license from the IBWC. To determine if a project occurs within these boundaries, access the maps available on the [IBWC Current Projects & Activity Maps](#) webpage. For licensing information, refer to the [IBWC Boundary and Realty Division](#) webpage.

14.2 Applicable Projects

This requirement only applies to projects that cross or encroach upon the floodplains of IBWC flood control projects or ROW. Compliance with this requirement is required regardless of NEPA classification.

14.3 Procedure

The project sponsor should follow the steps below to illustrate compliance with IBWC's license requirement. Specific roles, responsibilities, and timelines are assigned during project scoping. Contact the department delegate and/or NRM, if assistance is needed following this procedure.

Step One: Determine if an IBWC license is required based on the applicable projects described above. If an IBWC license is not required, no further action is necessary, except documentation, as outlined below. If an IBWC license is required, proceed to Step Two.

Step Two: Analyze the expected impacts and initiate the IBWC licensing process by following the instructions provided by IBWC to provide copies of environmental documents, plan sets, and other federal permits as applicable.

Step Three: Document expected impacts and permitting requirements. See further explanation below in Section 14.4.

14.4 Documentation

For CEs, the project file must include documented consideration of IBWC and describe required compliance activities, if applicable. For EAs/EISs, see the EA handbook for required document content. For all projects, the expected IBWC licensing requirements, if applicable, must be documented in the project file prior to environmental clearance. All licensing correspondence, final approval from IBWC, and any resulting commitments must be documented in the project file prior to project letting.

15.0 Wild and Scenic Rivers Act

15.1 Regulatory Overview

The Wild and Scenic Rivers Act (WSRA) is codified at Title 16, Chapter 28, Sections 1271-1287 ([16 USC 1274](#)). The purpose of the WSRA is to preserve the "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values" of rivers that have been designated under the WSRA as wild and/or scenic and to protect and preserve them in free-flowing condition for the benefit and enjoyment of present and future generations. The Bureau of

Land Management (BLM), National Park Service (NPS), U.S. Fish and Wildlife Service (USFWS), and U.S. Forest Service (USFS) are charged with administering the WSRA. The WSRA is applicable to a specific segment of the Rio Grande River (from river mile 842.3 above Mariscal Canyon, downstream to river mile 651.1 at the Terrell-Val Verde County line) and compliance is required regardless of NEPA classification.

15.2 Applicable Projects

The 191.3 mile portion of the Rio Grande in Brewster and Terrell counties between the boundary of the states of Chihuahua and Coahuila in Mexico, to the county line between Terrell and Val Verde counties, is designated as a Wild and Scenic River of National Importance. The WSRA applies to projects that could affect the free-flowing condition, water quality, or outstanding resource values (i.e., scenic, geologic, fish and wildlife, and recreational values) of this portion of the Rio Grande.

A map of the designated wild and scenic portion of the Rio Grande can be found on Page 7 of the NPS [Rio Grande Wild and Scenic River Final General Management Plan / Environmental Impact Statement \(2004\)](#).

To date, no TxDOT project has triggered the WSRA. Contact the NRM director if a project will impact the regulated portion of the Rio Grande and require compliance with the WSRA.

15.3 Documentation

For CEs, the project file must include documented consideration of WSRA and describe required compliance activities, if applicable. For EAs/EISs, see the EA handbook for required document content. All permitting correspondence, final approval from the river managing agency, and any resulting commitments must be included in the project file prior to project letting.

16.0 Coastal Zone Management and Texas Coastal Management Program

16.1 Regulatory Overview

The Coastal Zone Management Act (CZMA) encourages states and tribes to preserve, protect, develop, and, where possible, restore or enhance valuable natural coastal resources. These resources are designated as coastal natural resource areas (CNRAs), and include wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs. The fish and wildlife that inhabit CNRAs are also denoted as valuable and protected resources. The CZMA is codified at USC, Title 16, Chapter 33, Sections 1451-1465 ([16 USC 33, 1451-1465](#)). CNRAs are defined in Texas Natural Resources Code, Section 33.203, and adverse effects are defined at [31 TAC 26](#)

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Texas participates in the CZMA under the Texas Coastal Management Program (TCMP), which aims to ensure the long-term environmental and economic health of the Texas coast. The TCMP is administered by the General Land Office (GLO) and applies to projects or activities within the coastal zone management program boundary in Orange, Jefferson, Chambers, Harris, Galveston, Brazoria, Matagorda, Jackson, Calhoun, Victoria, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron counties. The TCMP map and description is located in [31 TAC 27](#)

Projects located within the TCMP coastal zone management boundary must avoid CNRAs and/or be consistent with TCMP goals and policies. The goals and policies of the TCMP for transportation projects are located at [31 TAC 26](#). Consistency is achieved either by avoidance of CNRAs or appropriate permitting of impacts on resources within CNRAs (e.g., obtaining a USACE permit for 404 impacts to a jurisdictional waters of the U.S. or completing Section 7 consultation with the USFWS for impacts on threatened or endangered species and/or their habitat). TxDOT self-certifies its transportation projects as consistent with the goals and policies of the TCMP by avoidance or appropriate permitting.

The state rules for implementing the coastal management program are codified at TAC, Title 31, Part 1, Chapter 26 ([31 TAC 26](#))

16.2 Applicable Projects

Compliance with the CZMA is required regardless of NEPA classification. All projects located within the TCMP coastal zone management boundary must address consistency with the TCMP.

Projects within the TCMP coastal zone management boundary must avoid CNRAs and/or obtain the appropriate permitting in order to be consistent with TCMP goals and policies.

16.3 Procedure

The project sponsor should follow the steps below to illustrate compliance with CZMA/TCMP. Specific roles, responsibilities, and timelines are assigned during project scoping. Contact the department delegate and/or NRM, if assistance is needed following this procedure.

Step One: Determine if the project is located within the TCMP coastal zone management boundary. If not, the procedure is complete. Document as described below. If so, proceed to Step Two, below.

Step Two: Determine whether or not the project is located within a CNRA. Proceed to Step Three, below.

Step Three: Determine whether the project:

- would not have a direct and significant adverse effect on a CNRA, or
- would have a direct and significant adverse effect on a CNRA but would otherwise be consistent with TCMP goals and policies.

Step Four: Document consistency with the TCMP, as described below, based upon which determination is made in Step Three, above. Consistency must be documented prior to NEPA approval.

Step Five: If the project is an EIS, the project sponsor must provide the GLO with a Notice of Availability of the DEIS.

16.4 Documentation

For CEs, the project file must include documented consideration of TCMP and describe required compliance activities, if applicable. For EAs/EISs, see the EA handbook for required document content.

For all projects, documentation is only necessary when the project is located in a county that contains a portion of the TCMP coastal zone management boundary, as described in Section 16.2. For EA/EISs, if the project is located within one of the counties occupied by a portion of the area covered by the TCMP, but is not actually within the boundaries of the area covered by the TCMP, then include an explanation to that effect in the EA/EIS.

For all projects, if the project is within the TCMP coastal zone management boundary, [31 TAC 27](#) requires one of two consistency determinations, as stated below. The appropriate finding statement and any resulting commitments must be included in the project file and/or environmental document. For an EIS, a summary of any coordination with the GLO must be included in the project file and/or environmental document.

If the project is located within the TCMP coastal zone management boundary but would avoid and not have a direct and significant adverse effect on a CNRA, the following finding statement must be included in the project file and/or environmental document:

“The Texas Department of Transportation reviewed this proposed action for consistency with the Texas Coastal Management Program (TCMP) goals and policies in accordance with the regulations of the Coastal Coordination Advisory Council and determined that the proposed action will not have a direct and significant adverse effect on the coastal natural resource areas (CNRAs) identified in the applicable policies ([31 TAC 26](#)) ([31 TAC 505.30\(b\)\(2\)](#)).”

If the project is located within the TCMP coastal zone management boundary and would have a direct and significant adverse effect on a CNRA, but the project is otherwise consistent with TCMP goals and policies, the following finding statement must be included in the project file and/or environmental document:

“The Texas Department of Transportation reviewed this proposed action for consistency with the Texas Coastal Management Program (TCMP) goals and policies in accordance with the regulations of the Coastal Coordination Advisory Council and determined that the proposed action is consistent with the applicable TCMP goals and policies ([31 TAC 26](#)).

Additionally, if an action is being processed as an EIS, or if it meets the threshold for actions concerning the Gulf Intracoastal Waterway set forth at [43 TAC 2.134\(b\)](#), then the following information must be included in the project file and/or environmental document as part of a written explanation supporting the consistency determination, per [31 TAC 26](#)

- The basis for the consistency determination
- A description of the proposed action and its probable impacts on a CNRA
- The TCMP goals and policies applied to the proposed action
- An explanation of how the proposed action is consistent with the applicable goals and policies, or why the proposed action does not adversely affect any CNRAs.

17.0 Coastal Barrier Resources Act

17.1 Regulatory Overview

The Coastal Barrier Resources Act (CBRA) was enacted in 1982 to discourage development in certain coastal areas vulnerable to hurricane damage and that host valuable natural resources. The Act designated certain undeveloped coastal areas as coastal barrier/system units under the Coastal Barrier Resources System (CBRS), and made those units ineligible for most new federal expenditures and financial assistance. Regulations for the CBRA are codified at USC, Title 16, Chapter 55, Sections 3501-3510 ([16 USC 3501-3510](#)). The CBRS is delineated and maintained by the U.S. Department of the Interior through USFWS. A map depicting the boundaries of the designated CBRS units can be found at: <https://www.fws.gov/ecological-services/habitat-conservation/coastal.html>. CBRS units are located in the following counties: Jefferson, Chambers, Galveston, Brazoria, Matagorda, Calhoun, Aransas, Nueces, Kleberg, Kenedy, Willacy, and

Cameron. For more information about determining and demonstrating compliance with the CBRA, refer to ENV's [Environmental Handbook on the Coastal Barrier Resources Act](#).

18.0 General Land Office Memorandum of Understanding

18.1 Regulatory Overview

The TxDOT and the GLO executed a MOU in 2006 that outlines the requirements to acquire a lease from the GLO when a transportation project requires new ROW or expansion of existing ROW over State-owned land covered by the MOU, defined as real property owned by the State of Texas and under the management of the GLO, including non-tidally influenced State-owned riverbeds and beds of navigable streams in the public domain, and state submerged lands.

18.2 Applicable Projects

Every transportation project that requires additional ROW or expansion of existing ROW involving State-owned land, as defined above, requires coordination with, and fair market value compensation for use to the GLO.

18.3 Procedure

The district must fill out an application that is provided by the GLO; usually an application for State Land Use Lease Miscellaneous Easements. Most of this application will be completed by district right of way personnel with assistance from the Right of Way Division (ROW) in Austin. If the GLO manages the State-owned land in question, a lease will be required from the GLO in order to proceed with the project. TxDOT shall provide the GLO with a land survey and legal description of the project area to initiate the lease coordination. The GLO will review and provide an appraisal of the land for which TxDOT must pay for in order to acquire a lease.

If you have any questions regarding the TxDOT GLO MOU or would like to initiate coordination with the GLO please contact the district ROW staff or your NRM contact.

18.4 Documentation

Because compliance with the TxDOT GLO MOU occurs outside of the environmental clearance process and may be pre-requisite, when applicable, for Section 404 authorization, GBA/Section 9 of the RHA, and/or Section 10 of the RHA, authorization is not required to be in the project file. However, ENV recommends that all applicable TxDOT GLO MOU documentation, including the actual lease from GLO, be included in the project file prior to letting, if applicable.

19.0 Abbreviations and Acronyms

AASHTO	American Association of State Highway and Transportation Officials
AST	Above Ground Storage Tank
BLM	Bureau of Land Management
BMP	Best Management Practice
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CDC	Corridor Development Certificate
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CGP	Construction General Permit
CMP	Coastal Management Program
CNRA	Coastal Natural Resource Area
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
CZP	Contributing Zone Plan
EA	Environmental Assessment
EIS	Environmental Impact Statement
ENV	Environmental Affairs Division
EO	Executive Order
EPA	Environmental Protection Agency
EPIC	Environmental Permits, Issues and Compliance
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FHWA T 6640.8A	FHWA Technical Advisory T 6640.8A
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
GBA	General Bridge Act
GLO	General Land Office
IBWC	International Boundary and Water Commission
IP	Individual Permit
LOP	Letter of Permission
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
NCTCOG	North Central Texas Council of Governments
NEPA	National Environmental Policy Act

Water Resources

NFIP	National Flood Insurance Program
NPS	National Park Service
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent
NRM	Natural Resources Management Section of ENV division
NWP	Nationwide Permit
PCN	Pre-Construction Notification
PS&E	Plans, Specifications, and Estimates
RGP	Regional General Permit
RHA	Rivers and Harbors Act
ROW	Right of Way
SWP3	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCEQ MOU	Memorandum of Understanding with TCEQ
TCMP	Texas Coastal Management Program
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
TxDOT	Texas Department of Transportation
UIC	Underground Injection Control
USC	United States Code
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
WPDT	Work Plan Development Tool
WSRA	Wild and Scenic River Act
43 TAC 2	TAC, Title 43, Part 1, Chapter 2
23 CFR 771	CFR, Title 23, Chapter I, Subchapter H, Part 771
23 CFR 650	CFR, Title 23, Chapter I, Subchapter G, Part 650
40 CFR 230	CFR, Title 40, Chapter I, Subchapter H, Part 230

Appendix A: Revision History

Effective Date	Reason for and Description of Change
August 2023	<p>Version 3 was released.</p> <ul style="list-style-type: none"> • Revised Section 10.3 regarding Section 9 authorizations to include instructions for when project is within CMP area. • Updated CMP regulatory citations throughout.
January 2019	<p>Version 2 was released. Documentation requirements updated to reflect current practices for all document types. Obsolete requirements and documentation standards were removed. All hyperlinks were checked and updated. Significant updates were made to the following subjects:</p> <ul style="list-style-type: none"> • Sole Source Aquifer - Safe Drinking Water MOU was revised to address changes from the June 2018 MOU. • Trinity River Corridor Development Certificate (CDC) requirements were removed. The CDC is a local regulation and therefore not applicable to state or federal projects. • Executive Order 11988 on Floodplains was updated to reflect that it is addressed programmatically through the implementation of the TxDOT Hydraulic Design Manual. Procedure and documentation requirements were significantly revised. • Coastal Zone Management and Texas Coastal Management Program procedures and documentation requirements were updated to reflect current practices. • Coastal Barrier Resources Act was revised to remove applicability and procedures and point users to the Environmental Handbook on Coastal Barrier Resources Act. • General Land Office Memorandum of Understanding documentation requirements were updated to reflect current practices.
November 2017	Version 1 was released.