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Texas Offshore Wind Energy Framework 2023

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ELI's Ocean Program is helping to support ocean and coastal planning efforts around the world that are based on local priorities, transparent and inclusive processes, and best available information. This report incorporates portions of and builds on ELI's previous work analyzing offshore renewable energy frameworks in the states of Louisiana (2022), Delaware (2011), Maryland (2009), and Virginia (2008). ELI has also worked with the five Mid-Atlantic states (New York, New Jersey, Maryland, Delaware, and Virginia) on a regional guide to offshore wind energy management. These reports are available at www.eli.org.

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Cover photo by National Wildlife Federation.

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ACRONYM GLOSSARY

BOEM: Bureau of Ocean Energy Management
CC: consistency certification
CCA: Coastal Coordination Act
CCAC: Coastal Coordination Advisory Committee
CD: consistency determination
CIT: Coastal Issue Team
CNRA: coastal natural resource area
CMP: coastal management program
COP: construction and operations plan
CSRM: coastal storm risk management
CWA: Clean Water Act
CZMA: Coastal Zone Management Act
EA: environmental assessment
EGTF: electric generating and transmission facilities
EIS: environmental impact statement
EP: enforceable policy
ERCOT: Electric Reliability Council of Texas
FERC: Federal Energy Regulatory Commission
GLO: General Land Office
NEPA: National Environmental Policy Act
NERR: National Estuarine Research Reserve
NOAA: National Oceanic and Atmospheric Administration
NOAA-OCM: NOAA Office of Coastal Management
OCS: Outer Continental Shelf
OCSLA: Outer Continental Shelf Lands Act
OSW: offshore wind
PAC: Permitting Assistance Coordinator
PGC: power generation company

ACRONYM GLOSSARY

PSC: Permit Service Center
PSF: Permanent School Fund
PUC: Texas Public Utility Commission
PURA: Public Utility Regulatory Act
PWC: Texas Parks and Wildlife Commission
REP: retail elctricity provider
ROW: right of way
RRC: Railroad Commission
RUE: right of use and easement
SCD: state consistency determination
SLB: School Land Board
TAC: Texas Administrative Code
TCEQ: Texas Commission on Environmental Quality
TCMP: Texas Coastal Management Program
TCRMP: Texas Coastal Resiliency Master Plan
TDU: transmission and distribution utility
TPDES: Texas Pollutant Discharge Elimination System
TPWD: Texas Parks and Wildlife Department
TxDOT: Texas Department of Transportation
USACE: U.S. Army Corps of Engineers
USFWS: U.S. Fish and Wildlife Service

INTRODUCTION

In August 2023, the federal Bureau of Ocean Management (BOEM) held the first lease sale for offshore wind energy development on the outer continental shelf in the Gulf of Mexico. Of the three tracts offered for lease, one lease was awarded, for an area off the coast of Lake Charles, Louisiana. The two areas offered for lease off the Texas coast received no bids from offshore wind developers in the auction; however, as the U.S. offshore wind industry continues to grow generally and in the Gulf region, it is possible that these or other lease areas offshore of Texas will be offered again in future BOEM sales.

Even with Texas's long history of facilitating oil and gas development in the Gulf of Mexico and prolific wind energy production on land, potential offshore wind (OSW) activities in federal waters would present new challenges for the state planning and regulatory framework. Galveston and/or other coastal communities would likely host new OSW-related development projects, such as transmission infrastructure, onshore support facilities, and port expansions and/or reconfigurations that may be needed to accommodate transport of giant offshore turbine blades. These and other OSW-related developments would require substantial engagement by state agencies to protect state resources and guide development where appropriate.

There is also a possibility that as an offshore wind industry emerges in the Gulf region, wind developers will consider siting turbines in areas closer to the coast, in Texas's state waters. Wind power generation is a familiar business model in Texas, where onshore wind makes up a significant amount of the state's energy production: over a quarter of the state's electricity is expected to come from wind facilities in 2023.[1] According to the Texas Coastal Management Program (TCMP), between 2015 and 2020, the number of wind farms in the state's coastal zone increased by 50%, from 10 to 15, for over 2,800 MW total of net summer capacity.[2] In neighboring Louisiana, the state is already in negotiations with OSW developers for leases closer to shore, within the state's own waters.[3]

However, recent policy developments raise questions about whether the pace of industry growth in Texas may soon be slowing down. After widespread power outages following a winter storm in 2021, many Texas lawmakers grew critical of wind energy and other renewables, blaming the catastrophic failure of the state's electric grid on these resources' alleged lack of reliability. The 2023 legislative session, which concluded in June, reflected the growing political backlash against the renewables industry and a concerted push to promote energy production from natural gas. While some proposed bills intended to curb the pace of renewable development failed to pass, the legislature succeeded in repealing the state's renewable energy goal, making the development of new transmission infrastructure more expensive, and scaling up financing and tax incentives for generators that use fossil fuels.[4] Another consequence of the 2021 winter storm was a tightening of reliability standards and emergency planning requirements for power generating companies, including wind farms, which may make wind power more expensive in the retail market. On the other hand, TCMP and others

[1] See ERCOT, FACT SHEET: JULY 2023 (July 2023), available at: https://www.ercot.com/files/docs/2022/02/08/ERCOT_Fact_Sheet.pdf.
[2] TCMP, TEXAS COASTAL MANAGEMENT PROGRAM SECTION 309 ASSESSMENT AND STRATEGIES REPORT: 2021-2025 at p. 72 (May 2020) (hereinafter "TCMP 309 ASSESSMENT 2021-2025"), available at: https://www.glo.texas.gov/coast/grant-projects/forms/cmp-309-assessment-and-strategies-2021-2025.pdf.
[3] See, e.g., Tristan Baurick, "Louisiana begins negotiations for first three wind farms in the Gulf of Mexico," Jun. 7, 2023, *Nola.com*, https://www.nola.com/news/environment/louisiana-begins-talks-for-for-gulfs-first-three-wind-farms/article_d8ae0042-0541-11ee-b59c-effcd831950f.html.
[4] Emily Foxhall et. al, "Texas power struggle: How the nation's top wind power state turned against renewable energy," May 25, 2023, *The Texas Tribune*, https://www.texastribune.org/2023/05/25/texas-energy-renewables-natural-gas-grid-politics/.

have observed that "[c]ompared to onshore wind, offshore wind has the advantage that it peaks during the day, when demand for power is highest"—and thus may be less susceptible to reliability issues.[5]

Furthermore, when it comes to wind power production on state-owned submerged lands, it is unclear which state leasing authority—and corresponding agency process—would be used. Unlike oil and gas leases and offshore geothermal leases, the Texas legislature has not created a specific leasing regime for wind energy research and production. Thus, there is no definitive blueprint for future offshore wind leases in state waters, and there are some open questions about the specific authorities and leasing procedures that are or may be relevant to leases for offshore wind development on the state's submerged lands.

Notwithstanding uncertainties around wind power production on state lands, the federal leasing program in the Gulf of Mexico means that the Texas coastal area is likely to see OSW-related development in the coming decades. As the federal and state leasing processes continue to progress in nearby Louisiana, Texas's legislature, agencies, and stakeholders are evaluating their own state's ability to manage, plan for, and oversee permitting, environmental review, and integration of OSW-related projects with Texas's goals for energy, the economy, and the environment.

Background: State and Federal Jurisdiction in the Gulf of Mexico

The State of Texas has direct regulatory and management jurisdiction over activities occurring in its own state waters and on its lands and submerged lands. **Thus, lands under the Gulf of Mexico within three marine leagues (just over 10 miles) of the Texas coastline are directly under state jurisdiction and authority.**[6] The "baseline" coastline location from which Texas's three marine leagues are measured is based on the location of the coastline in 1845, when Texas was admitted to the Union.[7]

While some federal permitting requirements will also apply to specific activities on Texas's lands and waters, the federal government has exclusive jurisdiction over the Gulf of Mexico outer continental shelf (OCS) beyond the three-marine-league limit. Texas's ability to affect actions on the federal OCS will depend in substantial part on its participation in federal processes including environmental impact review under the National Environmental Policy Act (NEPA) and federal consistency review provisions of the Coastal Zone Management Act (CZMA) that enable the state to review federal actions outside the state's coastal zone that have effects on land or water uses or natural resources within the coastal zone.[8]

Texas also retains jurisdiction over the portions of OCS energy projects and their support facilities that are within state waters or lands. Thus, for example, although BOEM may issue a wind energy lease on the OCS following environmental impact analysis and federal consistency review, state-level permits and approvals may still be needed for shore-based facilities or for transmission lines traversing state submerged lands.[9]

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[5] TCMP 309 ASSESSMENT 2021-2025, *supra*, at 72.

[6] Tex. Nat. Res. § 11.01 (incorporating the boundary established in United States v. States of La., Tex., Miss., Ala. & Fla., 363 U.S. 1, 24, 80 S. Ct. 961, 976, 4 L. Ed. 2d 1025 (1960)); see also Tex. Nat. Res. § 11.012 ("The State of Texas owns the water and the beds and shores of the Gulf of Mexico and the arms of the Gulf of Mexico within the boundaries provided in this section, including all land which is covered by the Gulf of Mexico and the arms of the Gulf of Mexico either at low tide or high tide.").

[7] In 1967, rejecting Texas's claim that its three marine leagues should be measured from artificial jetties constructed in the twentieth century, the U.S. Supreme Court held that "the congressional grant to Texas of three marine leagues of submerged land is measured by the historical state boundaries 'as they existed' in 1845 when Texas was admitted into the Union." United States v. State of La., 389 U.S. 155, 161 (1967).

[8] 42 U.S.C. §§ 4321 et seq. (NEPA); 16 U.S.C. §1456(c) (CZMA).

[9] R. Salcido, "Offshore Federalism and Ocean Industrialization," 82 TUL. L. REV. 1355 (2008) provides a useful discussion of the interplay between federal and state jurisdiction and considers alternative models of potential collaborative organization.

Purpose of Report

This report is intended to support participation by Texas stakeholders in offshore wind energy decision-making by providing an overview of the most relevant state laws, regulations, and intergovernmental authorities affecting wind energy development offshore of Texas. **Texas has not enacted state laws or regulations specifically governing siting of wind energy facilities in its own jurisdiction,** but other state policies will influence where and how offshore wind energy and related facilities are constructed and operated in and offshore of the state.

This report does not attempt to discuss all state policies that might apply directly or indirectly to OSW development off Texas's coast, but rather focuses on those most directly relevant to decisions about whether such facilities will or will not be permitted, and with what review and conditions. It reviews several key areas of state authority that, taken together, will help determine the state's ability to influence decisions about OSW development off its coast, including:

- Coastal management policies, including state coastal coordination requirements and federal consistency review under the CZMA;
- Policies governing public lands and water bottoms, including leases of state land; right-of-way easements; and other programs and policies that may affect siting within state lands and waters;
- Policies related to wind power production on, and transmission over, privately owned lands;
- Water pollution control policies, including state certification of federally authorized activities;
- Fish and wildlife protection policies that may restrict or otherwise be relevant to OSW development; and
- State energy policies and programs, including an overview of the legal framework for the generation and transmission of electricity.

As noted above, there are a number of federal regulatory policies that will or may apply outside and inside state boundaries. A comprehensive discussion of these laws is outside the scope of this report, but prior publications by ELI related to offshore renewable energy in other states may be helpful in identifying the general federal framework.[10] Local laws and regulations, both county and municipal, will also be relevant to land use decisions, including facility siting decisions at the parcel-by-parcel level.

[10] See ELI, Mid-Atlantic Planning, https://www.eli.org/ocean-planning/mid-atlantic (linking to reports on Delaware, Maryland, and Virginia that include discussion of federal laws and policies).

Box A: Timeline of Recent Developments in the Federal Leasing Process for the Gulf

In November 2021, BOEM published a Call for Information and Nominations-Commercial Leasing for Wind Power Development on the Outer Continental Shelf in the Gulf of Mexico, initiating the renewable energy competitive leasing process on the Gulf of Mexico Outer Continental Shelf (OCS). According to BOEM, the location and size of the Call Area were established in consultation with BOEM's Gulf of Mexico Intergovernmental Renewable Energy Task Force, an intergovernmental entity of which Texas—represented by the General Land Office (GLO)— is a member. In January 2022, BOEM announced that it had developed a draft environmental assessment (EA) under the National Environmental Policy Act (NEPA) considering potential environmental impacts of site characterization and assessment activities associated with possible wind energy leases on the Gulf of Mexico OCS. Public comments on the draft EA were accepted through September 2, 2022.

In October 2022, BOEM announced the finalization of Wind Energy Areas (WEA) offshore of Texas and Louisiana, a 682,000-acre subset of the original 30-million-acre call area which BOEM determined is "the most suitable for wind energy development." In February 2023, BOEM announced a proposed offshore wind lease sale for three proposed lease areas in the Gulf of Mexico, including a lease area off Lake Charles, Louisiana and two lease areas off the coast of Galveston, Texas. The publication of the Proposed Sale Notice in the Federal Register triggered a 60-day public comment period, which ended on April 25, 2023.

On May 30, 2023, BOEM issued a final environmental assessment (EA) on potential impacts from offshore wind leasing on the U.S. Outer Continental Shelf in the Gulf of Mexico, which included issuance of a Finding of No Significant Impact, meaning no further NEPA analysis is required for the proposed lease sale. While BOEM holds the final EA out as "a key milestone towards the potential first-ever offshore wind lease sale in the Gulf," the lease itself does not authorize the lessee to construct any wind energy facilities on the federal OCS; rather, it grants the lessee an exclusive right to submit site assessment and development plans to BOEM, which must be approved before further development activities. Prior to approving construction of any offshore wind project in the Gulf of Mexico, BOEM will develop a detailed environmental impact statement (EIS) analyzing the specific environmental impacts of the project, in consultation with tribes and other government agencies and with input from the public and other stakeholders.

In July 2023, BOEM issued a Final Sale Notice for the three lease areas in the Gulf, announcing that the lease sale will occur on August 29, 2023. In addition to the sale date, BOEM announced that the forthcoming leases would include new and modified stipulations addressing, e.g., public (including tribal) engagement reporting requirements, coordination between lessees, and coordination and planning related to protected species. On August 29, the auction was held, and the 102,000-acre Lake Charles Lease Area was awarded to RWE Offshore US Gulf, LLC for $5.6 million.

Sources: 86 Fed. Reg. 60283 (Nov. 11, 2021); BOEM, Task Force Roster: Gulf of Mexico Intergovernmental Renewable Energy Task Force Meeting (June 15, 2021), available at: https://www.boem.gov/sites/default/files/documents/BOEM-GOM-TaskForceMeeting-Roster-210607.pdf; BOEM, Renewable Energy—Gulf of Mexico Activities, https://www.boem.gov/renewable-energy/state-activities/gulf-mexico-activities; BOEM, BOEM Completes Environmental Review of Offshore Wind Leasing in the Gulf of Mexico: Environmental analysis finds no significant impacts (May 30, 2023), available at: https://www.boem.gov/newsroom/press-releases/boem-completes-environmental-review-offshore-wind-leasing-gulf-mexico.

COASTAL MANAGEMENT IN TEXAS

Texas coastal management laws and policies will be relevant to OSW development off the Texas coast whether turbines and ancillary facilities are sited in state waters, federal waters, or both. For projects located wholly within state waters, Texas coastal management laws will apply directly to turbine siting, construction, and operations as well as transmission and support facilities. For projects on the federal OCS, Texas coastal policies will be relevant during state reviews of federally authorized projects and will apply directly to the transmission lines and related infrastructure within or traversing Texas's coastal area, as energy produced on the OCS is brought onshore for delivery to the power grid.

This section begins with an overview of the state's jurisdiction over coastal lands and waters. Next, it describes the basic framework of the Texas Coastal Management Program (TCMP), highlights key elements including the "coastal area" boundary and the TCMP goals and policies, and provides detailed descriptions of the coastal policies most likely to apply to OSW-related development. The section goes on to discuss how the TCMP policies are applied to proposed development projects in various contexts: federal consistency reviews; state consistency requirements; and local consistency requirements. The end of this section provides a summary of other Texas coastal policies and plans that are not directly applicable to OSW development, but which may indirectly influence the location and operation of OSW facilities.

Coastal Jurisdiction Overview

Most of the submerged land in Texas's bays and tidally influenced rivers belongs to the state and is managed by the Texas General Land Office (GLO) under the direction of the elected Texas Land Commissioner (Land Commissioner).[11] In addition to the GLO, "[o]ther entities that manage submerged land include navigation districts and municipalities."[12] As later sections of this report will describe, additional state agencies with some degree of jurisdiction over the Gulf of Mexico and/or its resources include but are not limited to the Texas Parks and Wildlife Department, the Railroad Commission of Texas, and the Texas Commission on Environmental Quality.

State Jurisdiction Over Submerged Lands

The State of Texas "owns the water and the beds and the shores of the Gulf of Mexico and the arms of the Gulf of Mexico within [the state's gulfward boundary area], including all land which is covered by the Gulf of Mexico and the arms of the Gulf of Mexico either at low tide or high tide…."[13] There is a strong presumption in Texas that submerged lands belong to the state, unless a court that the legislature has expressly provided for a grant or conveyance in the "plain and positive language" of the law.[14]

Texas courts have consistently held that "[t]itle to the land covered by the bays, inlets, and arms of the Gulf of Mexico within tidewater limits rests in the State, and those lands constitute public property that is held in trust for the use and benefit of the people."[15] As noted above, according to the GLO, "Most submerged land in the bays

[11] GLO et. al, A GUIDE TO LIVING SHORELINES IN TEXAS at 42 (Sept. 2020) (hereinafter "GLO Living Shorelines Guide"), available at: https://www.glo.texas.gov/livingshorelines/documents/guide-to-living-shorelines-in-texas.pdf.
[12] Id.
[13] Tex. Nat. Res. § 11.01.
[14] West Gulf Marine, Ltd. V. Texas General Land Office, 636 S.W.3d 268, 274 (2021).
[15] Id (citing the state's highest court in Severance v. Patterson, 370 S.W.3d 705, 715 (Tex. 2012) and other cases).

and tidally influenced rivers belongs to the State of Texas and is managed by the GLO."[16] However, some submerged land is owned and controlled by navigation districts, port authorities, municipalities, and private owners.

Notably, under Texas law, when privately-owned coastal land later becomes submerged land due to factors like erosion[17] and/or sea level rise, the "private owner loses that property to the public trust."[18] Coastal property conveyed by the state to a private party *can* remain privately owned even after it is submerged under tidewaters, but "only under very special circumstances in which the State manifested its intent that the private landowner continue to own the property even if submerged."[19]

Waters above the submerged land are property of the state.
Source: Tex. Water § 11.021

The Texas legislature does have the power to convey title to submerged lands to private parties—for example, for an offshore wind project— but the law must unambiguously provide for a grant of public trust land to a private entity or person.[20] Currently, there are no offshore wind projects on privately held or state-owned submerged lands in Texas.

[16] GLO LIVING SHORELINES GUIDE, *supra*, at 42.
[17] According to GLO, the "average erosion rate for the 367 miles of Texas coast is 4.1 feet per year." GLO, Coastal Erosion (accessed July 6, 2023), https://www.glo.texas.gov/coast/coastal-management/coastal-erosion/index.html#:~:text=The%20average%20erosion%20rate%20for,than%2030%20feet%20per%20year.
[18] Severance v. Patterson, 370 S.W.3d 705, 718 (Tex. 2012).
[19] TH Invs., Inc. v. Kirby Inland Marine, L.P., 218 S.W.3d 173, 185 (Tex. App.—Houston [14th Dist.] 2007, pet. denied)
[20] West Gulf Marine, Ltd. V. Texas General Land Office, 636 S.W.3d at 274 (2021).

BOX B: Gulfward Boundary of Local Governments

Under Texas law, local governments have authority to assert extended jurisdiction over submerged Gulf of Mexico lands. This is important because it affects local governments' potential ability to impose local taxes on OSW development, on top of state leasing fees and royalties.

State law establishes not only the state's Gulfward boundary, but the maximum Gulfward boundary of local governments. These boundaries were heavily influenced by legislation from the early 1980s, when there was a fear that oil and gas companies operating on Gulf of Mexico water bottoms annexed by a local government would become subject to local taxes. The concern was that these companies would be inclined to move further out into the Gulf to avoid local taxes—beyond the jurisdiction of both the local government *and* the state, resulting in a decrease in state and public school fund revenues. As a result, state legislators established a one-mile Gulfward limit for general law cities' annexation (1981) and a one-marine-league Gulfward limit for home rule city annexation (1983).

- **Counties**: Under Texas law, the gulfward boundary of each county located on the Gulf coast is the three marine league line. The law provides that these areas in the "extended boundaries of the counties" become part of the "public school free land" (discussed in a later section on public lands) and are "subject to the constitutional and statutory provisions of this state pertaining to the use, distribution, sale, and lease of public free school land in this state." (Tex. Nat. Res. 11.013.)

- **Cities, Towns, and Villages – Generally**: State law generally allows any city, town, or village "created and operating under the general laws of the State" to establish—or extend by incorporation or annexation— its gulfward boundary up to, but no farther than, one mile (5,280 feet) gulfward of the coastline. (There are some exceptions for cities established prior to the relevant law's enactment.)

- **Home-Rule Cities:** Home-rule cities (including Galveston) derive some of their power directly from the Texas Constitution and thus enjoy "all the powers of the state not inconsistent with the Constitution, the general laws, or the city's charter" (*City of Galveston*, 217 S.W.3d at 469). State law establishes the maximum gulfward boundary of home rule cities based on the date of annexation. The general rule is that home-rule cities may extend gulfward within the area encompassed by drawing two straight lines, starting at each of the two (northern and southern) county lines and extending gulfward out to one marine *league.* (Tex. Nat. Res. § 11.0131.) However, home-rule cities are authorized to create "industrial districts" ("as the term is customarily used") in the area outside the city limits that falls within a gulfward polygon extending up to five *miles*. The governing body of a home-rule city that has done so enjoys the power to enter into contracts or agreements with owner(s) or lessee(s) of land in such an industrial district upon terms deemed appropriate by the parties. (Tex. Nat. Res. § 11.0131.)

Sources: City of Galveston v. State, 217 S.W.3d 466, 469 (Tex. 2006); Robert R. Ashcroft Barbara, Home Rule Cities and Municipal Annexation in Texas: Recent Trends and Future Prospects, 15 ST. MARY'S L.J. 519, 541 (1984).

Establishment and Administration of the Texas Coastal Management Program

The Texas Coastal Management Program (TCMP) was adopted by the state in 1996 and approved by the National Oceanic and Atmospheric Administration (NOAA) in 1997 to operate as a federally approved coastal program under the Coastal Zone Management Act.[21] The TCMP is primarily based on Texas's Coastal Coordination Act of 1991 (CCA) and its implementing regulations. The CCA mandated the development of a long-range comprehensive plan that would provide for more effective and efficient management of "coastal natural resource areas" (CNRAs), coordinate the implementation of government programs affecting CNRAs and measures necessary to resolve identified coastal programs, and make coastal management more consistent and transparent.[22] The TCMP is also intended to "help local governments improve their ability to manage CNRAs and human activities affecting those resources."[23]

The networked agencies of the TCMP are:

- GLO (lead agency)
- Texas Commission on Environmental Quality
- Railroad Commission of Texas
- Texas Parks & Wildlife Department
- Texas Department of Transportation
- Texas State Soil & Water Conservation Board
- Texas Water Development Board
- Texas A&M Sea Grant

The TCMP is a "networked" coastal management program, meaning it was created by "linking" the preexisting statutory authorities and regulatory programs of eight state agencies "with the intention of making coastal decision-making processes more effective and efficient."[24] **The GLO is the lead agency responsible for TCMP implementation**, including federal consistency reviews under the CZMA. Each of the networked agencies is responsible for "ensur[ing] its proposed actions are consistent with CMP goals and policies … when conducting activities in the coastal zone."[25]

Coastal Natural Resource Areas. CNRAs are the subtypes of coastal habitats and resources that are subject to TCMP jurisdiction and which collectively constitute the state's "coastal area."[26] The CCA defines 16 categories of CNRAs: coastal barrier, coastal historic area, coastal preserve, coastal shore area, coastal wetlands, critical dune area, critical erosion area, Gulf beach, hard substrate reef, oyster reef, special hazard area, submerged land, submerged aquatic vegetation, tidal sand or mud flat, water of the open Gulf of Mexico, and water under tidal influence. More detail about how each category of CNRA is defined can be found in Appendix I.

Many of the TCMP goals (see Box C) and policies (described below) apply uniformly to all CNRAs, but some are tailored to apply to certain area types. A subset of CNRAs referred to as "critical areas" in the TCMP regulations—which enjoy enhanced protection under several TCMP policies—include coastal wetlands, oyster reefs, hard substrate reefs, submerged aquatic vegetation, and tidal sand and mud flats.[27]

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[21] NOAA OCM and the State of Texas, COMBINED COASTAL MANAGEMENT PROGRAM FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE STATE OF TEXAS (Aug. 1996), available at: https://txglo.app.box.com/s/dtxv6wtat27ld0ppay4gce3r67lz8ohl; see also 62 Fed. Reg. pp. 1439 – 1440 (Jan. 10, 1997).
[22] See Tex. Nat Res § 33.201.
[23] 31 TAC 26.1.
[24] GLO, TEXAS COASTAL MANAGEMENT PROGRAM (CMP) BIENNIAL REPORT FOR FY 2021-2022 at 5 (Jan. 2023) (hereinafter "TCMP Biennial Report"), available at: https://www.glo.texas.gov/coast/coastal-management/forms/files/cmp-biennial-report-final.pdf.
[25] GLO, TCMP Biennial Report, *supra*, at 13.
[26] See, e.g., 31 TAC 26.1.
[27] 31 TAC 26.3.

Role of the GLO. As noted previously, the TCMP is implemented primarily by the GLO under the direction of the Texas Land Commissioner. The GLO has held the lead agency role since 2011, when the previous TCMP body, the Coastal Coordination Council, was abolished by the legislature (though references to the council persist in some state laws and guidance).

The CCA statute authorizes the Texas Land Commissioner to adopt "goals and policies" of the coastal management program, though no TCMP goal or policy can require an agency or local government to perform an action that would exceed its constitutional or statutory authority. According to the TCMP, these goals and policies "focus management efforts on five primary issues of concern to coastal communities, which include: (1) coastal erosion; (2) wetland protection; (3) water supply and water quality; (4) dune protection; and (5) shoreline access."[28] The CCA also authorizes the Land Commissioner to award grants to projects that further the goals and policies of the TCMP.[29]

Role of the Coastal Coordination Advisory Committee. Implementation of the TCMP is informed by the Coastal Coordination Advisory Committee (CCAC). Established in 2011 by the legislature to provide policy guidance to the TCMP, the CCAC is composed of representatives from the eight state agencies whose network of authorities are leveraged to make up the federally approved program: the GLO, the Texas Parks and Wildlife Department, the Texas Commission on Environmental Quality, the Railroad Commission of Texas, the Texas Water Development Board, the Texas Department of Transportation, the State Soil and Water Conservation Board, and the (non-voting) Texas Sea Grant College Program. The Land Commissioner appoints four additional members to the CCAC: a city or county elected official from the coastal area; an owner of a business located in a coastal area who resides in the coastal area; a resident from the coastal area; and "a representative of agriculture."[30]

Coordination is assisted by Coastal Issue Teams (CITs), which are made up of subsets of the CCAC member agencies to "ensure the necessary technical expertise and background is available for resolution of important coastal issues."[31] There are four CITs, which "meet regularly to coordinate on cross-agency issues."[32]

The CITs are:

- **The Regulatory/Permitting CIT**: This CIT, which meets on an as-needed basis to discuss proposed projects with potential coastal impacts, focuses on "federal consistency issues and information exchange on consistency reviews." Among other things, the CIT may discuss the need to elevate projects to the Land Commissioner during federal consistency review.

- **Coastal Long-Term Planning CIT**: These CIT members participate in development of five-year assessments and strategy reports for the TCMP as required under Section 309 of the CZMA.

- **Water Quality CIT**: This CIT focuses on coastal water quality issues, including implementation of the state's Coastal Nonpoint Source Pollution Program.

[28] GLO, TEXAS COASTAL MANAGEMENT FEDERAL CONSISTENCY GUIDANCE at 7 (Aug. 2023) (hereinafter "FEDERAL CONSISTENCY GUIDANCE"), available at: https://www.glo.texas.gov/coast/coastal-management/federal-consistency/files/federal-consistency-interim-guidance.pdf.
[29] Tex. Nat Res. § 33.204.
[30] Tex. Nat Res. § 33.2041.
[31] GLO, FEDERAL CONSISTENCY GUIDANCE, *supra*, at 6.
[32] Id.

- **Grants CIT**: The Grants CIT reviews applications for around $2 million per year in coastal enhancement grants and decides which projects to fund.[33]

The full CCAC manages high-level issues, including "elevated coastal issues that concern multiple Coastal Issue Teams and consistency issues." [34]

Box C: TCMP Goals

The "goals" of the TCMP are established by TLC to help inform the program's interpretation and implementation. According to GLO, the goals are also "intended to provide the networked agencies with uniform guidelines to coordinate state and federal agency activities while managing CNRAs." The goals are generally "considered" when reviewing proposed activities for consistency with the TCMP; in some cases, a TCMP policy explicitly calls for consideration of a specific goal. However, the goals are unlikely to be useful as enforceable, substantive standards on their own.

The TCMP goals are:

"(1) to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of [CNRAs]);

(2) to ensure sound management of all coastal resources by allowing for compatible economic development and multiple human uses of the coastal zone;

(3) to minimize loss of human life and property due to the impairment and loss of protective features of CNRAs;

(4) to ensure and enhance planned public access to and enjoyment of the coastal zone in a manner that is compatible with private property rights and other uses of the coastal zone;

(5) to balance the benefits from economic development and multiple human uses of the coastal zone, the benefits from protecting, preserving, restoring, and enhancing CNRAs, the benefits from minimizing loss of human life and property, and the benefits from public access to and enjoyment of the coastal zone;

(6) to coordinate …decision-making affecting CNRAs by establishing clear, objective policies for the management of CNRAs;

(7) to make agency and subdivision decision-making affecting CNRAs efficient by identifying and addressing duplication and conflicts among local, state, and federal regulatory and other programs for the management of CNRAs [and]

(8) …by employing the most comprehensive, accurate, and reliable information and scientific data available and by developing, distributing for public comment, and maintaining a coordinated, publicly accessible geographic information system of maps of the coastal zone and CNRAs…

(9) to make coastal management processes visible, coherent, accessible, and accountable to the people of Texas by providing for public participation in the ongoing development and implementation of the Texas CMP; and

(10) to educate the public about the principal coastal problems of state concern and technology available for the protection and improved management of CNRAs."

Sources: GLO, TEXAS COASTAL MANAGEMENT FEDERAL CONSISTENCY GUIDANCE at 6-7 (Feb. 2023); 31 TAC 26.12.

[33] Id.

[34] GLO, TEXAS COASTAL MANAGEMENT PROGRAM (CMP) BIENNIAL REPORT FOR FY 2017-2018, available at: https://www.glo.texas.gov/the-glo/reports/audit-legislative/index.html.

Key Elements of the TCMP Framework

Coastal Zone Boundary

The official boundary of the "coastal zone" (or "coastal area") for purposes of the TCMP is described generally in the Texas Administrative Code as:

> "the area lying generally seaward of the coastal facility designation line, which is the line adopted under the Oil Spill Prevention and Response Act of 1991, to describe areas where oil spills are likely to enter tidal waters. The layer also includes wetlands landward of the coastal facility designation line, generally within one mile from the shoreline, along the extreme inland reach of certain tidal rivers and streams."[35]

The boundary includes all or a portion of the following Texas counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson, and Orange.[36] The full Texas coastal zone boundary is depicted by the red line in Figure A; a partial coastal zone map focused on the Galveston area, where potential OSW-related development can be reasonably expected to occur, is depicted by the blue line in Figure B.

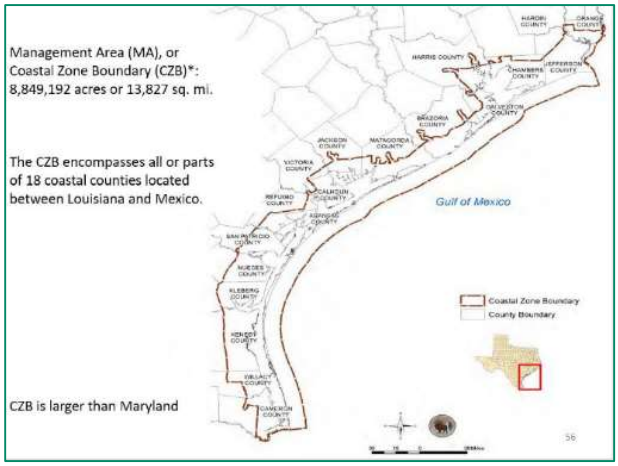


Figure 1: Full Coastal Zone Boundary (Source: GLO, FEDERAL CONSISTENCY GUIDANCE, *supra*)

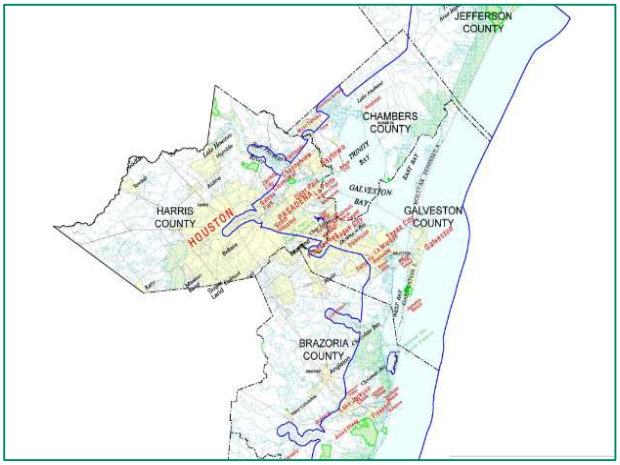


Figure 2: Partial Coastal Zone Boundary (Source: GLO)

[35] 31 TAC 503.1.
[36] 31 TAC 27.1.

Box D: The Coastal Facility Designation Line

The concept of the coastal facility designation line originated in Texas's Oil Spill Prevention and Response Act of 1991, which was enacted to help support the federal Oil Pollution Act of 1990. In the law, Texas lawmakers stated that it was Texas policy to protect the coastal environment, public and private coastal property, and the people whose livelihoods derive from marine-related activities from the impacts of oil spills, discharges, and escapes resulting from the handing, storage, and transportation of oil and petroleum. The legislation noted explicitly the legislators' determination that "hazards posed by the handling, storage, and transportation of these substances in coastal waters are contrary to the paramount interests of the state. These state interests outweigh the economic burdens imposed" by the legislation (Tex. Nat. Res. § 40.002).

In regulations promulgated pursuant to the OSPRA of 1991, the GLO defines coastal waters as "[a]ll tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico seaward to the three marine league limit of Texas's jurisdiction; and non-tidally influenced waters extending from the head of tide in the arms of the Gulf of Mexico inland to the point at which navigation by regulated vessels is naturally or artificially obstructed" (31 TAC 19.2). The precise location of the coastal facility designation line—whose purpose is to give notice to facilities coastward of the line that they are in "areas in which spills may pose an imminent threat to coastal waters" and thus may be subject to facility certification requirements under the OSPRA—is described in detail in an appendix to the GLO regulations (31 TAC 19.2 (Appendix 1)).

TCMP Policies

At the heart of Texas's coastal management framework are the TCMP policies. Adopted by rule by the Land Commissioner/GLO, these policies guide the use, development, and protection of CNRAs and help facilitate inter- and intragovernmental coordination on coastal land use issues. State agencies, municipalities, and counties subject to the CCA are required to comply with the goals and policies when taking certain "listed" state actions, and the TCMP policies constitute the "enforceable policies" of the Texas coastal management program, which are applied in federal consistency reviews conducted by GLO pursuant to the CZMA. The TCMP enforceable policies are detailed and comprehensive, generally providing substantial protection to fish, wildlife, and habitat areas with high ecological value.

The current versions of the goals and policies are codified at Title 31, Part 26 of the Texas Administrative Code (having been transferred from another section in December 2022). The regulations set forth ten overarching program "goals" (31 TAC 26.12; see Box C above); a few "administrative policies" (31 TAC 26.14-15); and 19 sets of specific TCMP "policies" addressing different categories of coastal activities in varying degrees of stringency and detail (31 TAC 26.16-34).

Numerous TCMP policies are likely to be relevant to OSW and related development activities sited in state waters, on the outer continental shelf, or both. A proposed project may be subject to the requirements of more than one section of policies. The sets of specific policies most likely to apply to OSW generation and transmission facilities in the coastal zone include:

- Policies for Construction of Electric Generating and Transmission Facilities;
- Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands; and
- Policies for Dredging and Dredged Material Placement.

In addition, depending on specific location(s) of proposed OSW-related activities, one or more sets of policies governing special areas or resource types may apply, including but not limited to: Policies for Development in Critical Areas; Policies for Construction in the Beach/Dune System; Policies for Development within Coastal Barrier Resource System Units and Otherwise Protected Areas on Coastal Barriers; Policies for Development in State Parks, Wildlife Management Areas or Preserves; and Policies for Alteration of Coastal Historic Areas.

The policies discussed in the following sections are not intended to provide an exhaustive list of TCMP policies that may apply to a specific project. One or more of the other sets of TCMP policies may be relevant in certain situations.

Policies for Construction of Electric Generating and Transmission Facilities. The Policies for Construction of Electric Generating and Transmission Facility (referred to here as "EGTF policies") apply to "[c]onstruction of electric generating facilities and electric transmission lines in the coastal zone." On its face, this set of policies would apply to wind power turbines located inside the three-league Gulf boundary, as well as transmission facilities originating in and/or transiting the state's coastal area. However, a few of the EGTF policies are tailored to address traditional power plant design and operation and would not be applicable to wind energy facilities.[37] None of the current EGTF policies are tailored to, nor explicitly contemplate the possibility of, the construction of renewable energy facilities.

A general siting standard to help protect recreational and ecological uses applies to electric generating facilities in the coastal area:

> "Electric generating facilities shall be constructed at sites selected to have the least adverse effects practicable on recreational uses of CNRAs and on areas used for spawning, nesting, and seasonal migrations of terrestrial and aquatic fish and wildlife species." (31 TAC 26.16.)

Some the EGTF policies are aimed at minimizing the geographic footprint—both new and cumulative—of electric infrastructure sited in the coastal zone. There is a requirement that new electric generating facilities must, "where practicable, be located at previously developed sites." Where new electric generating facilities are constructed at undeveloped sites, they must "be located so that future expansion will avoid construction in critical areas, Gulf beaches, critical dunes[38], and washovers to the greatest extent practicable." Electric transmission lines to or on a coastal barrier—defined as an undeveloped area on a barrier island, peninsula, or other protected area, as designated by United States Fish and Wildlife Service maps[39]— must "be located, where practicable, in existing rights-of-way or previously disturbed areas if necessary to avoid or minimize adverse effects" and, as with generating facilities, must be located at sites where future expansion will avoid construction in critical areas, Gulf beaches, critical dunes, and washovers to the greatest extent practicable.

For purposes of the TCMP policies, "practicable" means "available and capable of being done after taking into consideration existing technology, cost, and logistics in light of the overall purpose of the activity."
Source: 31 TAC 26.3.

For state consistency reviews (discussed in a later section), the EGTF policies section, which was adopted in 2004 and last updated in 2006, states that the Public Utility Commission must comply with the EGTF

[37] For example, one of the policies states, "Electric generating facilities using once-through cooling systems shall be located and designed to have the least adverse effects practicable, including impingement or entrainment of estuarine organisms." 31 TAC 26.16.
[38] Critical dunes refer to a protected sand dune complex on the Gulf shoreline within 1,000 feet of mean high tide designated by the Land Commissioner under Tex. Nat. Res. § 63.121.
[39] 31 TAC 26.3.

policies "when issuing certificates of convenience and necessity and adopting rules under the Public Utility Regulatory Act [Texas Utilities Code 11.001 et seq.] governing construction of electric generating facilities, electric transmission lines, and associated facilities in the coastal zone."[40]

According to the TCMP, only one new transmission project was planned in the coastal area during the program's 2019-2023 planning period.[41]

Box E: Adverse Effects

Many of the TCMP policies involve requirements to avoid or mitigate "adverse effects" on one or more CNRAs. The term "adverse effects" is defined in the TCMP regulations as "effects that result in the physical destruction or detrimental alteration of a CNRA," and the rule enumerates 11 circumstances that qualify as detrimental alterations:

"(A) construction in critical dune areas and coastal hazard areas that increase risks to human safety or the potential for damage to property or CNRAs from floods, hurricanes, or other storms;

(B) alterations that interfere with public use and enjoyment of, or access to and from, those CNRAs to which the public has a right of use, enjoyment, or access;

(C) alterations that damage or destroy coastal historic areas;

(D) alterations that harm the functions and values of CNRAs as habitat for terrestrial and aquatic wildlife;

(E) alterations that disrupt wildlife corridors or fish or bird migratory routes;

(F) discharges of pathogens, radioactive materials, dissolved minerals or solids, toxic substances, or suspended solids at levels harmful to humans or terrestrial or aquatic life or that significantly impair the aesthetic qualities of CNRAs;

(G) alterations of salinity regimes, nutrient supply, oxygen concentration, or temperature regimes in coastal waters that are harmful to terrestrial or aquatic life;

(H) alterations of hydrology, water flow, circulation patterns, water level, or surface drainage that are harmful to humans or terrestrial or aquatic life, impair the aesthetic qualities of CNRAs, or exacerbate erosion of shorelines or river deltas;

(I) alterations of littoral and sediment transport processes that reduce the supply of sediments available to those processes or would otherwise exacerbate erosion of shorelines or river deltas;

(J) alterations that increase losses of shore areas or other CNRAs from a rise in sea level with respect to the surface of the land, whether caused by actual sea-level rise or land surface subsidence; and

(K) emission of air pollutants at levels that are harmful to humans or terrestrial or aquatic life or that significantly impair the aesthetic qualities of CNRAs."

The regulations' definitions section provides comparatively little detail about the concepts of avoidance and minimization, defining "avoid and otherwise minimize" as "avoid[ing] adverse effects to the greatest extent practicable. Adverse effects that cannot be avoided must then be minimized to the greatest extent practicable." However, some TCMP policies– e.g., the policies on dredging and dredged material disposal and placement— provide concrete examples of ways that adverse effects might be "minimized."

Source: 31 TAC 26.3.

[40] 31 TAC 26.16.

[41] TCMP 309 ASSESSMENT 2021-2025, *supra,* at 67.

Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands. Activities and facilities in Texas state waters related to OSW generation and/or transmission will likely be subject to the Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands, which apply to "development on submerged lands."

In general, facilities on submerged lands must be "located at sites or designed and constructed to the greatest extent practicable to avoid and otherwise minimize the potential for adverse effects from: (A) construction and maintenance of other development associated with the facility; (B) direct release to coastal waters and critical areas of pollutants from oil or hazardous substance spills or stormwater runoff; and (C) deposition of airborne pollutants in coastal waters and critical areas."[42] Water-dependent uses receive preference over uses and facilities that are not water-dependent, and activities on submerged land must "avoid and otherwise minimize any significant interference" with the public's use of and access to such areas.[43]

Like the EGTF policies, this section encourages siting new infrastructure in previously disturbed areas: "Where practicable, pipelines, transmission lines, cables, roads, causeways, and bridges shall be located in existing rights-of-way or previously disturbed areas if necessary to avoid or minimize adverse effects and if it does not result in unreasonable risks to human health, safety, and welfare." Also like other sections of TCMP policies, critical areas enjoy special protections here: "[S]tructures shall be designed and, to the greatest extent practicable, sited to avoid and otherwise minimize adverse effects on critical areas from boat traffic to and from those structures."[44] (Relatedly, to the greatest extent practicable, facilities must be "located at sites at which expansion will not result in development in critical areas.") Coastal wetlands enjoy enhanced protections, even above other critical area types: facilities must be located at sites which "which avoid the impoundment and draining of coastal wetlands. If impoundment or draining cannot be avoided, adverse effects to the impounded or drained wetlands shall be mitigated in accordance with the [mitigation sequencing requirements set out in the development in critical areas policy]." To minimize effects on all CNRAs from the construction phase, the policies require that "[t]o the greatest extent practicable, construction of facilities shall occur at sites 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 and aquatic wildlife."[45]

To minimize new dredging areas, there is a stated preference for construction of docks, piers, wharves, and other structures to provide access to coastal waters, instead of dredging channels/basins or filling submerged lands, if such construction is practicable, environmentally preferable, and will not interfere with commercial navigation.[46] (Where practicable, piers, docks, wharves, bulkheads, jetties, and groins must be constructed with materials that will not cause any adverse effects on coastal waters or critical areas.) If any OSW-related coastal facilities necessitate or involve "erosion response" activities, they may be subject to the requirement that nonstructural erosion response methods (e.g., beach nourishment, nearshore sediment berms, vegetation) be preferred over structural methods.

[42] 31 TAC 26.24.
[43] Id.
[44] Id.
[45] Id.
[46] 31 TAC 26.24.

With respect to decommissioning, the regulation provides,

> Developed sites shall be returned as closely as practicable to pre-project conditions upon completion or cessation of operations by the removal of facilities and restoration of any significantly degraded areas, unless: (A) the facilities can be used for public purposes or contribute to the maintenance or enhancement of coastal water quality, critical areas, beaches, submerged lands, or shore areas; or (B) restoration activities would further degrade CNRAs. (31 TAC 26.24)

For state consistency purposes, this rule specifies that the GLO and the School Land Board (SLB), in governing development on state submerged lands, must comply with the policies in this section when granting surface leases, easements, and permits.

Policies for Dredging and Dredged Material Placement. The TCMP policies establishing standards for dredging and deposition of dredged materials are relevant to undersea cable installation, as well as other OSW-related activities involving removal of soil, sand, gravel, or other native material from state water bottoms.

The TCMP dredging policies begin with a general rule that dredging and the disposal and placement of dredged material must avoid and otherwise minimize adverse effects to coastal waters, submerged lands, critical areas[47], coastal shore areas, and Gulf beaches to the greatest extent practicable. As with other TCMP policies, this section includes an explicit mandate to consider cumulative and secondary adverse effects of dredging and disposal/placement of dredged material, as well as the "unique characteristics of affected sites," in implementing the policies.

Under the dredging policies, **the general rule is that dredging, disposal, and placement of dredged material must not be authorized if any of the following are true:**

> (A) there is a practicable alternative that would have fewer adverse effects on coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches, so long as that alternative does not have other significant adverse effects;
>
> (B) all appropriate and practicable steps have not been taken to minimize adverse effects on coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches; or
>
> (C) significant degradation of critical areas under [the policies for development in critical areas] would result (31 TAC 26.25).[48]

With respect to "minimizing adverse effects," the dredging policies are notable for providing useful, concrete examples of how a project proponent might implement minimization of adverse effects. Specific examples of minimization measures are organized into eight categories of minimization strategies: (1) controlling the location and dimensions of the activity; (2) treatment of or limitations on toxic constituents contained in materials dredged and discharged; (3) control of the materials discharged; (4) controlling the manner in which the material id dispersed; and (5) adapting technology to the needs of each site; (6) minimizing adverse effects on plant and animal populations; (7) minimizing adverse effects on human use potential; and (8) minimizing adverse effects from creation of new channels and basins.

[47] The policies for dredging and dredged material placement expressly require that adverse effects on critical areas be avoided and otherwise minimized and appropriate and practicable compensatory mitigation be required; these requirements are detailed in a separate section entitled Policies for Development in Critical Areas (described later in this section).

[48] A navigation project that would be prohibited solely based on A, B, or C above *may* be allowed if "it is determined to be of overriding importance to the public and national interest in light of economic impacts on navigation and maintenance of commercially navigable waterways." Even where this exception applies, adverse effects must be minimized. 31 TAC 26.25.

The dredging policies also include a requirement that dredged material from dredging projects in commercially navigable waterways must be used beneficially if the costs of the beneficial use are "reasonably comparable" to the costs of disposal in a non-beneficial manner, or if the costs of beneficial use are significantly greater but are reasonably proportionate to the costs of the project and the benefits that will result.[49]

For state consistency purposes, the regulation specifies that the GLO and the SLB must comply with these policies when granting surface leases, easements, and permits (and adopting rules) under the Texas Natural Resource Code Chapters 32, 33, 51, 52, and 53 for dredging and dredged disposal and placement. The Texas Commission on Environmental Quality (TCEQ) and Railroad Commission (RRC) must comply with these policies when issuing certifications (and adopting rules) under Texas laws governing certification of compliance with surface water quality standards for federal actions and permits authorizing dredging or discharge or placement of dredged material. There is also a firm, overarching requirement that dredging and dredged material disposal and placement must not cause or contribute ("after consideration of dilution and dispersion") to violation of any applicable Texas surface water quality standards.

Examples of the dredging policy's suggested measures to **minimize adverse effects of dredging and disposal on plant and animal populations** are:

"(A) avoiding changes in water current and circulation patterns that would interfere with the movement of animals;
(B) selecting sites or managing discharges to prevent or avoid creating habitat conducive to the development of undesirable predators or species that have a competitive edge ecologically over indigenous plants or animals;
(C) avoiding sites having unique habitat or other value, including habitat of endangered species;
(D) using planning and construction practices to institute habitat development and restoration to produce a new or modified environmental state of higher ecological value by displacement of some or all of the existing environmental characteristics;
(E) using techniques that have been demonstrated to be effective in circumstances similar to those under consideration whenever possible and, when proposed development and restoration techniques have not yet advanced to the pilot demonstration stage, initiating their use on a small scale to allow corrective action if unanticipated adverse effects occur;
(F) timing dredging and dredged material disposal or placement activities to avoid spawning or migration seasons and other biologically critical time periods; and
(G) avoiding the destruction of remnant natural sites within areas already affected by development."

[49] 31 TAC 26.25. Additionally, the regulation states, "To the extent practicable, agencies and subdivisions should maximize the use of collaborative partnerships between federal and non-federal interests to plan, fund, and implement projects for the beneficial use of dredged material, and should further endeavor to coordinate such projects with the U.S. Army Corps of Engineers." Id.

Enhanced Protections for High-Value Areas Within CNRAs. Depending on the specific location(s) of proposed OSW development activities in the coastal zone, one or more sets of TCMP policies governing special areas or resource types may apply.

Policies for Development in Critical Areas. As previously noted, a subset of coastal habitats referred to as "critical areas" receive special treatment—including the attachment of compensatory mitigation requirements—under the TCMP policies. **A critical area is defined as a coastal wetland** (specific locations of which are provided in the regulations' definitions section[50]), **an oyster reef, a hard substrate reef, submerged aquatic vegetation, or a tidal sand or mud flat.** The Policies for Development in Critical Areas apply to activities involving dredging and construction of structures in, or the discharge of dredged or fill material into, these habitat types. They establish standards to prevent significant degradation and require compensatory mitigation actions where critical areas are affected.

The critical area policies include procedural directives in addition to substantive standards: the state agencies subject to these policies for state consistency purposes "will coordinate with one another and with federal agencies when evaluating alternatives, determining appropriate and practicable mitigation, and assessing significant degradation."[51] With regard to evaluation methodology, the rule explicitly states that "[i]n implementing this section, cumulative and secondary adverse effects of these activities will be considered."[52] Also informing these policies' implementation is a provision stating that the critical area development policies "shall be applied in a manner consistent with the goal of achieving no net loss of critical area *functions and values*."[53]

[50] 31 TAC 26.3. ("Wetlands, as the term is defined by Texas Water Code, §11.502, located: (A) seaward of the Coastal Facility Designation Line, established by rules adopted under Texas Natural Resources Code, Chapter 40; (B) within rivers and streams to the extent of tidal influence, as shown on the Texas Commission on Environmental Quality's stream segment maps and described as follows….")

[51] 31 TAC 26.23.

[52] Id.

[53] Id. (emphases added). For instance, in determining compensatory mitigation requirements, the impaired functions and values must be replaced on a one-to-one ratio, which "may require restoration or replacement of the physical area affected on a higher ratio than one-to-one." (However, there is also a provision that "[w]hile no net loss of critical area functions and values is the goal, it is not required in individual cases where mitigation is not practicable or would result in only inconsequential environmental benefits.")

The key substantive rule established in this section is that **development in critical areas shall not be authorized if significant degradation of critical areas will occur**. The regulation goes on to list several specific circumstances that constitute "significant degradation," which include (but are not limited to):

> "(A) the activity will jeopardize the continued existence of species listed as endangered or threatened, or will result in likelihood of the destruction or adverse modification of a habitat determined to be a critical habitat under the Endangered Species Act, 16 United States Code Annotated, §§1531 - 1544;
> (B) the activity will cause or contribute, after consideration of dilution and dispersion, to violation of any applicable surface water quality standards established under §501.21 of this title; …
> (D) the activity violates any requirement imposed to protect a marine sanctuary designated under the Marine Protection, Research, and Sanctuaries Act of 1972, 33 United States Code Annotated, Chapter 27; or
> (E) taking into account the nature and degree of all identifiable adverse effects, including their persistence, permanence, areal extent, and the degree to which these effects will have been mitigated pursuant to subsections (c) and (d) of this section, the activity will, individually or collectively, cause or contribute to significant adverse effects on:
>
> > (i) human health and welfare, including effects on water supplies, plankton, benthos, fish, shellfish, wildlife, and consumption of fish and wildlife;
> > (ii) the life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, or spread of pollutants or their byproducts beyond the site, or their introduction into an ecosystem, through biological, physical, or chemical processes;
> > (iii) ecosystem diversity, productivity, and stability, including loss of fish and wildlife habitat or loss of the capacity of a coastal wetland to assimilate nutrients, purify water, or reduce wave energy; or
> > (iv) generally accepted recreational, aesthetic or economic values of the critical area which are of exceptional character and importance." (31 TAC 26.23.)

If a proposed activity in a critical area will not result in significant degradation by that definition, it *may* be allowed subject to the regulation's requirements to avoid, minimize, and mitigate adverse effects. (However, the rule expressly "recognize[s] that there are circumstances where the adverse effects of the activity are so significant that, even if alternatives are not available, the activity may not be permitted regardless of the compensatory mitigation proposed.") **In general, a person or entity proposing development in a critical area must "demonstrate that no practicable alternative with fewer adverse effects is available."** The policy sets forth a mandatory hierarchy of avoidance, minimization, and mitigation, in that order:

> "In evaluating practicable alternatives, the following sequence shall be applied:
> (A) Adverse effects on critical areas shall be avoided to the greatest extent practicable.
> (B) Unavoidable adverse effects shall be minimized to the greatest extent practicable by limiting the degree or magnitude of the activity and its implementation.
> (C) Appropriate and practicable compensatory mitigation shall be required to the greatest extent practicable for all adverse effects that cannot be avoided or minimized." (31 TAC 26.23.)

With respect to compensatory mitigation, it is defined in the policy as "restoring adversely affected critical areas or replacing adversely affected critical areas by creating new critical areas." The policy includes a preference that compensatory mitigation "should be undertaken, when practicable, in areas adjacent or contiguous to the affected critical areas (on-site)."[54] The policy also states a preference for in-kind mitigation (i.e., attempting to replace affected critical areas with critical areas with characteristics identical to or closely approximating those

[54] Where on-site mitigation is not practicable, off-site compensatory mitigation "should" be used in "close physical proximity to the affected areas if practicable and in the same watershed if possible."

of the affected ones). The resulting "preferred order" of compensatory mitigation is summarized as: (A) on-site, in-kind; (B) off-site, in-kind; (C) on-site, out-of-kind; and (D) off-site, out-of-kind." Mitigation bank credits are authorized if the bank has been approved by the agency authorizing the development activities and there are credits available. The compensatory mitigation provisions also allow for "[p]reservation through acquisition for public ownership" of unique critical areas or other ecologically important areas in exceptional circumstances.[55]

For state consistency purposes, the critical area development policies apply to the same agencies and activities as the dredging and disposal policies.

Policies for Construction in the Beach/Dune System. Depending on its location along the coastline, is possible that development to facilitate transmission of OSW energy to the onshore grid could be subject to the Policies for Construction in the Beach/Dune System.[56] For state consistency purposes, the GLO is required to comply with these policies when certifying local government dune protection and beach access plans and adopting rules under the Open Beaches Act and the Dune Protection Act. Local governments that are required under those laws to adopt dune protection and beach access plans (i.e., localities with Gulf of Mexico coastline) must comply with this section when issuing beachfront construction certificates and dune protection permits.[57]

Per these policies, which govern construction in critical dune areas and/or areas adjacent to Gulf beaches, construction within a critical dune area is prohibited if it will result in material weakening of dunes and material damage to dune vegetation. Construction within a critical dune area that will not result in those outcomes must be sited, designed, constructed, maintained, and operated so that adverse effects on the sediment budget and critical dune areas are avoided to the greatest extent practicable and, if they cannot be avoided, minimized, and mitigated according to mitigation procedures outlined in the policy.[58]

Box F: Relocation of Oysters as Mitigation for Dredging Impacts

A 2015 project in the Houston area offers an example of how the mitigation requirements may be implemented. According to the environmental planning and consulting firm BIO-WEST, the 2015 Houston Ship Channel Wharf Terminal Expansion project involved "hydraulic or mechanical dredging of a 12.6-acre area and removing an estimated 421,900 cubic yards of dredge material." There was nearly an acre of oyster reef within the footprint of the dredge area. The firm reportedly worked with state and federal regulators to identify an "environmental solution to relocate oysters, using a Texas Parks and Wildlife Aquatic Resource Relocation Plan, and construct a small artificial reef," which was "accepted by the US Army Corps of Engineers as a viable mitigation effort." The project involved at least five years of post-construction functional assessments and monitoring for success. According to BIO-WEST, "Agency coordination and communication with colleagues at the Texas Parks and Wildlife Department, US Fish and Wildlife Service, and the National Marine Fisheries Service [were] paramount for the success of this project."

Source: BIO-WEST, Houston Ship Channel Wharf Terminal Expansion, https://www.bio-west.com/services/coastal-ecology-marine-biology/houston-ship-channel-wharf-terminal-expansion/ (accessed July 2023).

[55] 31 TAC 26.23.

[56] In New Jersey, for example, as of 2022 the "preferred route" for transmission infrastructure associated with Orsted's Ocean Wind 1 offshore wind project would have the line come onshore on a beach lot owned by the municipality of Ocean City. See Brian X. McCrone, "How an Offshore Wind Farm Would Come Onshore in Ocean City, NJ," Mar. 30, 2022, NBC News Philadelphia, https://www.nbcphiladelphia.com/news/national-international/changing-climate/how-an-offshore-wind-farm-will-come-onshore-in-ocean-city-nj/3170444/ (accessed July 2023).

[57] 31 TAC 26.26.

[58] Id. For purposes of this section, practicability shall be determined by considering the effectiveness, scientific feasibility, and commercial availability of the technology or technique. Cost of the technology or technique shall also be considered. Id.

Many of the provisions in this section address erosion response measures, including by stating a preference for non-structural methods and establishing setback requirements for certain structural projects. Shore protection projects are allowable for "public infrastructure," but not to protect individual structures or properties. To the extent OSW-related development involves a shore protection element, these policies may influence its location, type, size, and length.

Policies for Development on Coastal Barriers. Special policies apply to areas of Texas's barrier islands that have been designated as Coastal Barrier Resource System Units or Otherwise Protected Areas under the federal Coastal Barrier Resource Act (16 U.S.C. § 3503). These policies govern development of new infrastructure, as well as "major repair" of existing infrastructure, within or supporting development within these areas.

For state consistency review purposes, TxDOT rules and approvals under Texas Transportation Code Chapter 201, et seq., governing planning, design, construction, and maintenance of transportation projects, must comply with the policies in this section. The section also applies to TCEQ approvals (and rules) for the creation of special districts of various types—e.g., water, sanitary sewer, and wastewater drainage districts under Texas Water Code.

In general, the development of publicly funded infrastructure must not be authorized in these areas unless it is "essential for public health, safety, and welfare, enhances public use, or is required by law." Infrastructure must be located at sites where "reasonably foreseeable future expansion" will not require development in critical areas, critical dunes, Gulf beaches and washover areas within system units or otherwise protected areas. Where practicable, infrastructure must be located in existing rights-of-way or previously disturbed areas to avoid or minimize adverse effects. Development of infrastructure must occur "at sites and times selected to have the least adverse effects practicable" on critical areas, critical dunes, Gulf beaches, and washover areas within system units or otherwise protected areas, and on spawning or nesting areas or seasonal migrations of commercial, recreational, threatened, or endangered terrestrial or aquatic wildlife.

Figure 3: Partial Map of Coastal Barrier Resource System Units in Texas (Source: U.S. Fish and Wildlife Service)

Infrastructure must be located at sites that to the greatest extent practicable avoid and otherwise minimize potential for adverse impacts on critical areas, critical dunes, Gulf beaches and washover areas within system units or otherwise protected areas from: (A) construction and maintenance of roads, bridges, and causeways; and (B) direct release of oil, hazardous substances, or stormwater runoff to coastal waters, critical areas, critical dunes, Gulf beaches, and washover areas within system units or otherwise protected areas.

Coastal Historic Areas. Under the TCMP rules, development affecting a coastal historic area must "avoid and otherwise minimize alteration or disturbance of the site" (unless the site's excavation promotes historical, archeological, educational, or scientific understanding).[59] For purposes of the TCMP, coastal historic areas are sites that are specifically identified in rules adopted by the Texas Historical Commission as being "coastal in

[59] 31 TAC 26.30.

character" and that are: (A) on the National Register of Historic Places, designated under relevant federal law; or (B) state archaeological landmarks as defined by Texas Natural Resources Code, Subchapter D, Chapter 191.

The Texas Historical Commission is required to comply with these policies when issuing permits for alteration of coastal historic areas (Texas Nat. Res. Code, Chapter 191) and when issuing reviews pursuant to the National Historic Preservation Act §106.[60]

State Parks, Wildlife Management Areas or Preserves. This policy states that development by any person other than Texas Parks and Wildlife Department that requires the use or taking of any public land in a state park, wildlife management area, or preserve must comply with applicable provisions of the Texas Parks and Wildlife Code (i.e., Chapter 26).[61] (The potential effects on OSW development of state park and wildlife management area laws and policies is discussed in a later section of this report.)

Federal Consistency with TCMP Policies

Federal Consistency Overview

The federal Coastal Zone Management Act (CZMA or Act) uses two primary incentives to encourage states to implement comprehensive coastal management programs: (1) sustained funding via a NOAA-administered federal grant program; and (2) the use of federal consistency review by states as a management and oversight tool and a check on federal activities in the coastal zone. As noted previously, the TCMP was approved by NOAA in 1997.

Federal consistency review is the authority granted to states under Section 307 of the CZMA to review proposed "federal actions" in order to determine whether they conform with the state's approved coastal management program[62] **Through federal consistency review, Texas can review federal actions that will have reasonably foreseeable effects on the state's coastal resources and uses for consistency with the "enforceable policies" of the Texas coastal management program**. Federal actions may include activities occurring within or outside of Texas's state boundaries, as long as they affect the Texas coastal zone directly (i.e., effects occurring at the same time and place as the activity) or indirectly (i.e., secondary or cumulative effects that occur later in time or are farther removed in distance but are still reasonably foreseeable).[63]

Box G: Federal Consistency vs. NEPA

- Compliance with the federal consistency requirement by a federal agency complements, but is separate from, NEPA compliance.
- NEPA documents can be an effective delivery mechanism for the information and analysis required for federal consistency review.
- The "effects" test triggering certain CZMA requirements is different from the "significant environmental impacts" standard that triggers certain NEPA procedures.
- A finding under NEPA (e.g., a FONSI) is not dispositive for a CZMA threshold determination.

[60] 31 TAC 26.30.
[61] 31 TAC 26.29.
[62] See 16 U.S.C. § 1456.
[63] See 15 C.F.R. 930.11.

Overseen by NOAA's Office of Coastal Management (NOAA-OCM) in accordance with the Act and NOAA's implementing regulations ("CZMA regulations"), **the federal consistency review process is "the primary means by which a state can address state issues for the review of offshore wind project proposals**."[64] While it does not allow states to "regulate" or "manage" offshore activities in federal waters, the review process provides a valuable forum for identifying and resolving issues, and according to NOAA-OCM has been "essential for addressing state issues for offshore wind farms" in other regions. [65]

For purposes of OSW-related projects directly impacting Texas (i.e., excluding federal financial assistance), there are two different types of "federal actions" that trigger federal consistency review:

- **Federal agency activities,** also referred to as direct federal activities (e.g. a competitive lease sale by BOEM for alternative energy on the OCS); and
- **Federally licensed, permitted, or approved activities**, also referred to as federally authorized activities (e.g., a non-competitive lease sale wherein a non-federal applicant applies to BOEM for approval of a renewable energy project on the OCS).[66]

The federal consistency requirements and procedures differ somewhat depending on the type of federal action being proposed. Notably, federally authorized activities must be consistent with the state program's enforceable policies; the standard is more lenient for federal agency activities, which must be consistent with the enforceable policies of the state program *to the maximum extent practicable*.[67] Consistent to the maximum extent practicable means "fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency."[68]

In Texas, the GLO reviews federal actions in and affecting the state coastal zone for consistency with the state's enforceable policies.[69] The agency is now in the process of updating its federal consistency procedures. In July 2023, the GLO adopted new rules that "update terminology and review timeframes to be consistent with the federal consistency regulations" in the Code of Federal Regulations.[70] The GLO also recently published a *Texas Coastal Management Program Federal Consistency Guidance* document for use by federal entities and the public.[71] **The state's federal consistency procedures must be consistent with the procedures established by NOAA-OCM,** upon which the following process descriptions are based.

Enforceable Policies. For purposes of federal consistency reviews, enforceable policies are state policies that are legally binding (i.e., mandatory) under state law—e.g., constitutional provisions, laws, regulations, land use plans,

[64] David Kaiser, NOAA-OCM, PRESENTATION TO THE INTERGOVERNMENTAL RENEWABLE ENERGY TASK FORCE FOR THE GULF OF MEXICO RE: CZMA REVIEW OF OFFSHORE RENEWABLE ENERGY PROJECTS (June 2021), available at: https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NOAA-National-Ocean-Service-CZMA-David-Kaiser.pdf.

[65] Kaiser, NOAA-OCM, *supra*.

[66] Another category of federal actions subject to consistency review is federal financial assistance. See generally 15 CFR Part 30, Subpart F.

[67] 15 C.F.R. 930.36, 57.

[68] The regulations state, the "Act was intended to cause substantive changes in Federal agency decision making within the context of the discretionary powers residing in such agencies. Accordingly, whenever legally permissible, Federal agencies shall consider the enforceable policies of management programs as requirements … If a Federal agency asserts that full [consistency] it shall clearly describe, in writing, to the State agency the statutory provisions, legislative history, or other legal authority which limits the Federal agency's discretion to be fully consistent with the enforceable policies of the management program." Id. at § 930.32.

[69] See generally GLO, Coastal Management: Federal Consistency, https://www.glo.texas.gov/coast/coastal-management/federal-consistency/index.html (accessed Aug. 2023).

[70] GLO, Council Procedures for Federal Consistency with Coastal Management Program Goals and Priorities, 48 Tex. Reg. 3677 (July 7, 2023).

[71] GLO, FEDERAL CONSISTENCY GUIDANCE, *supra*.

ordinances, or judicial or administrative decisions— by which a state "exerts control over private and public land and water uses and natural resources in the coastal zone," and which have been incorporated into a NOAA-approved CMP (15 C.F.R. 930.11). **Enforceable policies (EPs) comprise the substantive standards of a state's federal consistency review authority.** To find a proposed activity inconsistent with the coastal management program, the state must identify specific enforceable policies that the activity would violate.

The enforceable policies of the TCMP are the "TCMP policies" described in the previous section of this report., codified at 31 TAC 26.15-26.34. According to BOEM, the EPs identified by the Texas coastal program as generally relevant to oil and gas activities on the Gulf of Mexico OCS include most of the specific policies described in the previous discussion of TCMP policies, as well as the Policies for Discharge of Municipal and Industrial Wastewater to Coastal Waters (26:21); Policies for Nonpoint Source Water Pollution (26:22); Policies for Development in Coastal Hazard Areas (26:27); §26.32 Policies for Emission of Air Pollutants (26:32); and others that are unlikely to apply to OCS development.[72] The EGTF policies were not identified on this list—which is not binding on the GLO and appears to have been developed in the context of oil and gas exploration and development—but presumably would be relevant to offshore wind power generation.

It is worth noting that many of the TCMP policies, including some of those identified in this report as most relevant to OSW, incorporate by reference other state and federal policies, lists, and designations. (In an extreme instance, the Policies on State Parks, Wildlife Management Areas or Preserves purport to incorporate by reference an entire chapter of the Texas Natural Resource Code.) However, for federal consistency purposes, NOAA maintains a firm rule that states may not incorporate enforceable policies by reference. As NOAA-OCM wrote to the GLO in a letter approving and qualifying the most recent TCMP program change in 2014,

> "If an approved enforceable policy refers to another regulation, policy, standard, guidance, or other such requirement or document (hereinafter "referenced policy"), the referenced policy itself must be submitted to and approved by OCRM as an enforceable policy in order to be applied under the federal consistency review provisions of the CZMA. Therefore, no requirement or document referenced in these approved enforceable policies may be applied for federal consistency unless that requirement or document has separately been approved by OCRM."[73]

It is not clear whether Texas would be able to rely on existing, previously approved TCMP policies that incorporate other state and federal policies by reference as enforceable policies during a contentious federal consistency process. (The TCMP may argue the NOAA approved the policies in the first place, and therefore they are valid elements of the current program, while NOAA-OCM may argue that a defective policy may not be enforced notwithstanding prior approvals made in error.) To err on the side of caution, GLO might consider submitting to NOAA-OCM the most important incorporated definitions, maps, and policies for incorporation as EPs or updating the language of the TCMP regulations with full excerpts of the referenced policies' relevant language.

[72] BOEM, COASTAL ZONE MANAGEMENT PROGRAM POLICIES FOR THE GULF OF MEXICO STATES APPLICABLE TO OUTER CONTINENTAL SHELF (OCS) PLAN FILINGS (n.d.), available at: https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Assessment/CZMA/CZM-Program-Policies-for-GOM-States.pdf.
[73] Letter from Joelle Gore, NOAA-OCM, to Jerry Patterson, Commissioner, GLO (Jan. 27, 2014), available at: https://coast.noaa.gov/czmprogramchange/#/public/change-view/1132.

Federal Agency Activities

Federal agency activities are activities undertaken by federal agencies directly, or on a federal agency's behalf.[74] Federal agency activities may include, but are not limited to, a federal agency's proposal to physically alter coastal resources, a plan that is used to direct future agency actions, or a proposed rulemaking that alters uses of the coastal zone.[75]

As a threshold matter, a federal agency must determine if coastal effects are reasonably foreseeable from a proposed activity; this is true for federal agency activities taking place inside *or outside* a state's coastal zone.[76] It is the federal agency's responsibility to initiate this threshold determination. NOAA guidance encourages states to "list" in their CMPs the types of federal agency activities that can be generally expected to have coastal effects (and to monitor unlisted activities and notify federal agencies when an unlisted activity should undergo consistency review), but a state's decision to list or not list a direct federal action in the CMP does not change the federal agency's affirmative statutory duty to provide a consistency determination (CD).[77] For example, if BOEM holds a lease sale for a renewable energy project in federal offshore waters, it is BOEM's responsibility to determine if there will be coastal effects in one or more coastal states.[78]

In the case of a BOEM lease sale or other direct federal action, the question of whether there will be coastal effects in Texas will determine if the state is allowed to engage in federal consistency review. The CZMA regulations make clear that in performing the "effects test" to determine whether a CD is required, federal agencies should broadly construe the regulation's definition of "coastal effects," erring on the side of providing a CD.[79] NOAA's *Federal Consistency Overview* (2020) explains that the "effects test applies to activities and uses/resources that occur outside a state's coastal zone, so long as the uses or resources impacted are, in fact, uses or resources of a state's coastal zone."[80]

Coastal uses may include (but are not limited to) public access, recreation, fishing, historic or cultural preservation, development, energy infrastructure and use, hazard management, marinas, floodplain management, scenic and aesthetic enjoyment, and resource creation or restoration. Coastal resources– i.e., the biological or physical resources that are found within the coastal zone on a regular or cyclical basis– may include (but are not limited to) air, tidal and nontidal wetlands, ocean waters, estuaries, rivers, streams, lakes, aquifers, submerged aquatic vegetation, land, plants, trees, minerals, fish, shellfish, invertebrates, amphibians, birds, mammals, and reptiles.

If the answer to the threshold inquiry is that there will not be coastal effects, the federal agency makes a "negative determination," but is only required to inform the state about the negative determination finding if the action is

[74] 15 C.F.R. 930.31. The terms "Federal agency activity" and "Federal development project" also include modifications of any such activity or development project which affect any coastal use or resource, provided that, in the case of modifications of an activity or development project which the State agency has previously reviewed, the effect on any coastal use or resource is substantially different than those previously reviewed by the State agency.
[75] 15 C.F.R. 930.31.
[76] 15 C.F.R. 930.33. In cases of certain federal "development projects" occurring *inside* the coastal zone, coastal effects are presumed, and the next step in the analysis is automatically required. The term federal "development project" means a federal agency activity involving the planning, construction, modification, or removal of public works, facilities, or other structures, and includes the acquisition, use, or disposal of any coastal use or resource. Id. at § 930.31.
[77] NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW at 11 (2020), available at: https://coast.noaa.gov/data/czm/consistency/media/federal-consistency-overview.pdf.
[78] Kaiser, NOAA-OCM, *supra*.
[79] 15 C.F.R. § 930.33.
[80] NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW, *supra*, at 5.

identified on the state's federal consistency "list" or through monitoring of unlisted activities (described in a subsequent section).[81] If the answer is that there *will* be coastal effects, the consistency determination process continues as described below.

It is generally accepted that offshore activities on the OCS can affect a state's coastal zone through water pollution, air pollution, noise pollution, or a variety of other mechanisms.[82] However, Texas is not necessarily entitled to review every proposed OCS activity in the Gulf of Mexico. According to NOAA-OCM guidance, "The burden for determining or demonstrating effects is greater the farther removed an activity takes place outside of a state's coastal zone," and "[m]erely showing impacts from an activity outside of the coastal zone should not be sufficient by itself to demonstrate that reasonably foreseeable effects extend to uses or resources of the coastal zone."[83] In the environmental assessment prepared by BOEM to determine whether lease sales and site assessment plans within the Gulf of Mexico Call Area would lead to reasonably significant impacts on the environment (and thus require a full EIS under NEPA), BOEM's Gulf of Mexico regional office wrote that it had **"determined that Texas, Louisiana, Mississippi, and Alabama may have reasonably foreseeable coastal effects**."[84]

Box H: Texas Concurs with CD for Proposed Offshore Wind Lease Sales

In early 2023, BOEM issued a CD in connection with its NEPA review for wind lease sales in the Gulf of Mexico, prior to releasing the final environmental assessment (EA) for proposed lease sale GOMW-1, which will offer for lease wind energy areas offshore Galveston, Texas and Lake Charles, Louisiana. The CZMA regulations authorize regional CDs where states "share common coastal management issues and have similar enforceable policies," and a single CD was prepared by BOEM and sent to the Louisiana and Texas coastal management programs on February 22, 2023. On March 17, the Texas GLO published in the Texas Register a Notice and Opportunity to Comment on Requests for Consistency Agreement/Concurrence Under the Texas Coastal Management Program.[1] Indicating that the notice had been published on the GLO website on March 10, the register notice stated that the comment period would close on April 9. To view a copy of the consistency determination and/or receive additional information, the public was instructed to contact the GLO's Public Information Officer. According to BOEM, the Texas GLO "provided a letter notifying BOEM of their concurrence with the CD" on April 21.

As indicated in Appendix B, additional opportunities for federal consistency review will arise in connection with future steps in the OSW development process on the Gulf of Mexico OCS. If there is a lease sale for the area offshore Galveston, the leaseholder is likely to be required to prepare and submit to the GLO a consistency certification.

Prior consistency determinations for individual federal actions do not establish binding precedent for future reviews. Even similar activities that subsequently trigger the CZMA's federal consistency provisions present new opportunities for a state to review and concur (or object).

Sources: BOEM, COMMERCIAL AND RESEARCH WIND LEASE AND GRANT ISSUANCE AND SITE ASSESSMENT ACTIVITIES ON THE OUTER CONTINENTAL SHELF OF THE GULF OF MEXICO (May 2023), *supra*; 48 Tex. Reg. 1588 (Mar. 17, 2023).

[81] 15 C.F.R. § 930.33

[82] See generally BOEMRE, ALTERNATIVE ENERGY PROGRAMMATIC EIS at 5-115 (2007), available at: https://www.boem.gov/sites/default/files/renewable-energy-program/Regulatory-Information/Alt_Energy_FPEIS_Chapter5.pdf.

[83] NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW, *supra*, at 5.

[84] BOEM, COMMERCIAL AND RESEARCH WIND LEASE AND GRANT ISSUANCE AND SITE ASSESSMENT ACTIVITIES ON THE OUTER CONTINENTAL SHELF OF THE GULF OF MEXICO at 5-12 (May 2023), available at: https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GOM%20Wind%20Lease%20EA_0.pdf.

Federal Agency Activities – Consistency Review Procedures. The general procedures for consistency review of federal agency activities are found in "Subpart C" of the CZMA implementing regulations (15 C.F.R. 930.30 et seq.). The BOEM regulations for Renewable Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf ("BOEM renewable energy regulations"), which implement BOEM's authority over leases, rights of way (ROW), and right of use and easement (RUE) grants for wind energy production on the OCS under the Energy Policy Act of 2005 (30 CFR Part 585), provide additional guidance for consistency reviews in the context of specific offshore activity types.

In general, prior to any competitive commercial lease sale that will have "coastal effects" in Texas, BOEM is responsible for preparing a consistency determination to determine whether issuing leases, and the site characterization and assessment activities that occur in connection with lease issuance, are consistent to the maximum extent practicable with the enforceable policies of the TCMP.[85] The CZMA regulations require a federal agency to provide the state with a CD "at the earliest practicable time" in the planning of an activity, i.e., "following development of sufficient information to reasonably determine the consistency of the activity with the management program, but before the Federal agency reaches a significant point of decision making in its review process" and the activity can still be modified.[86] In any case, a CD must be provided to the state at least 90 days before final approval of the federal agency activity (unless both the Federal agency and the State agency agree to an alternative schedule).[87]

To comply with the CZMA regulations, a consistency determination must include not only a statement indicating that the proposed activity will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the state CMP, but also a "description" of the agency's evaluation of the relevant enforceable policies. A CD must also include what is typically referred to as "necessary information," meaning "a detailed description of the activity, its associated facilities, and their coastal effects, and comprehensive data and information sufficient to support" the consistency finding.[88]

If the federal agency is aware before submitting the CD that the activity is not fully consistent with a CMP's enforceable policies (i.e., is only consistent to the maximum extent practicable), the CD must include a written description of the statute, legislative history, or other legal authority that limits the agency's discretion to modify its activities in a way that would be fully consistent with the enforceable policies.[89]

After receiving a CD, Texas (via the GLO) must agree or disagree with BOEM's consistency determination by the end of a 60-day review period, which must include an opportunity for public participation in the state's review.[90] If the state does not respond after 60 days (or request an extension), the state's concurrence with the CD—i.e., agreement by the state that the activity is consistent with the coastal management program—is presumed.[91] However, if the state notifies the federal agency within two weeks of first receiving the CD that some of the necessary information is missing, the start of the 60-day review period is delayed until the missing information is received.

[85] See id.; see generally 15 C.F.R. 930.36.
[86] 15 C.F.R. 930.36.
[87] Id.
[88] 15 C.F.R. § 930.39. The amount of detail in the evaluation of the enforceable policies, activity description and supporting information shall be commensurate with the expected coastal effects of the activity. The Federal agency may submit the necessary information in any manner it chooses so long as the requirements of this subpart are satisfied. Id.
[89] 15 C.F.R. 930.39. See also id. at 930.32.
[90] 15 C.F.R. 930.41. Public participation, at a minimum, must consist of public notice for the area(s) of the coastal zone likely to be affected by the activity, which includes "sufficient information to serve as a basis for comment…" 15 C.F.R. 930.42.
[91] The state is entitled to at least one 15-day extension upon timely request. 15 C.F.R. 930.41.

If the state concurs with the consistency determination, the federal agency activity can proceed (e.g., BOEM can hold the OCS lease sale). If the state *disagrees*, its response to the federal agency must include its reasons for the objection to the determination and identify the specific enforceable policies with which the activity is inconsistent. (If there are alternative measures that would allow the activity to proceed in a manner consistent to the maximum extent practicable with the CMP, the state should describe them, but failure to describe alternatives does not affect the validity of a state's objection.)[92] When a state issues an objection, NOAA's CZMA regulations urge the agencies to "attempt to resolve their differences," and encourage federal agencies to postpone the final federal action until the issues are resolved, utilizing dispute resolution mechanisms (e.g., mediation available through NOAA) as appropriate.

"Generally, we try to resolve any differences with the State; however, the CZMA allows us to proceed with the lease sale notwithstanding any unresolved disagreements."

-BOEM

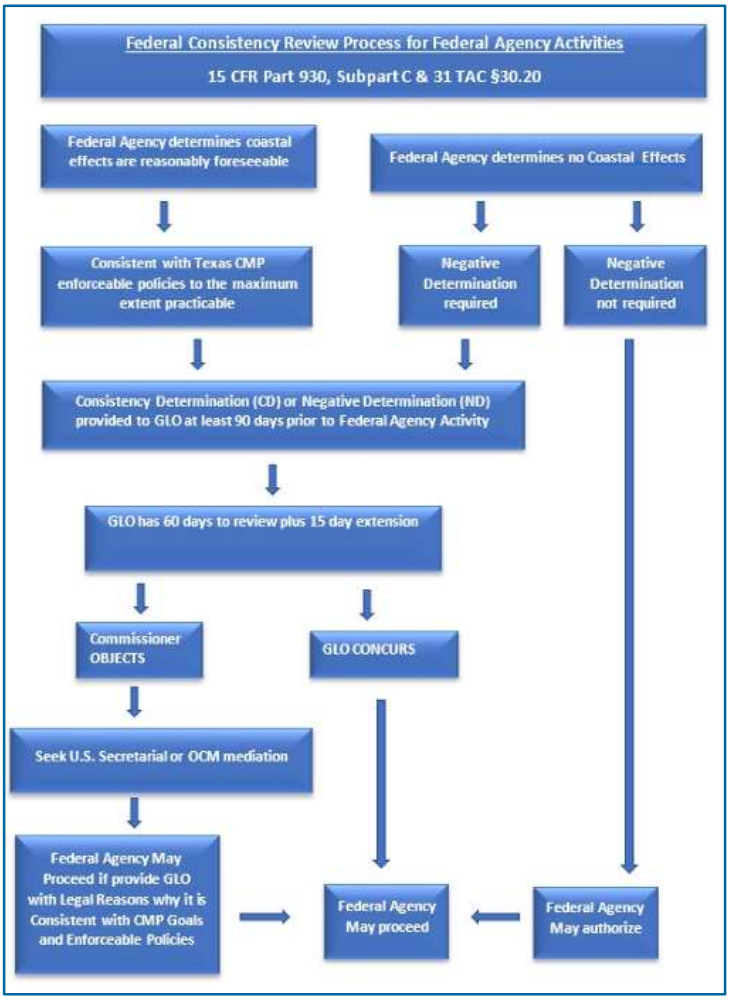
The state also has the option of issuing a "conditional concurrence": a letter that sets out the conditions which must be satisfied for the activity to be consistent, explaining why these conditions are necessary to ensure consistency with specified enforceable policies of the CMP. The federal agency is then required to modify the proposed project or plan pursuant to the state's conditions or to immediately notify the state that its conditions are not acceptable, in which case the process continues as if the state had issued an objection.[93]

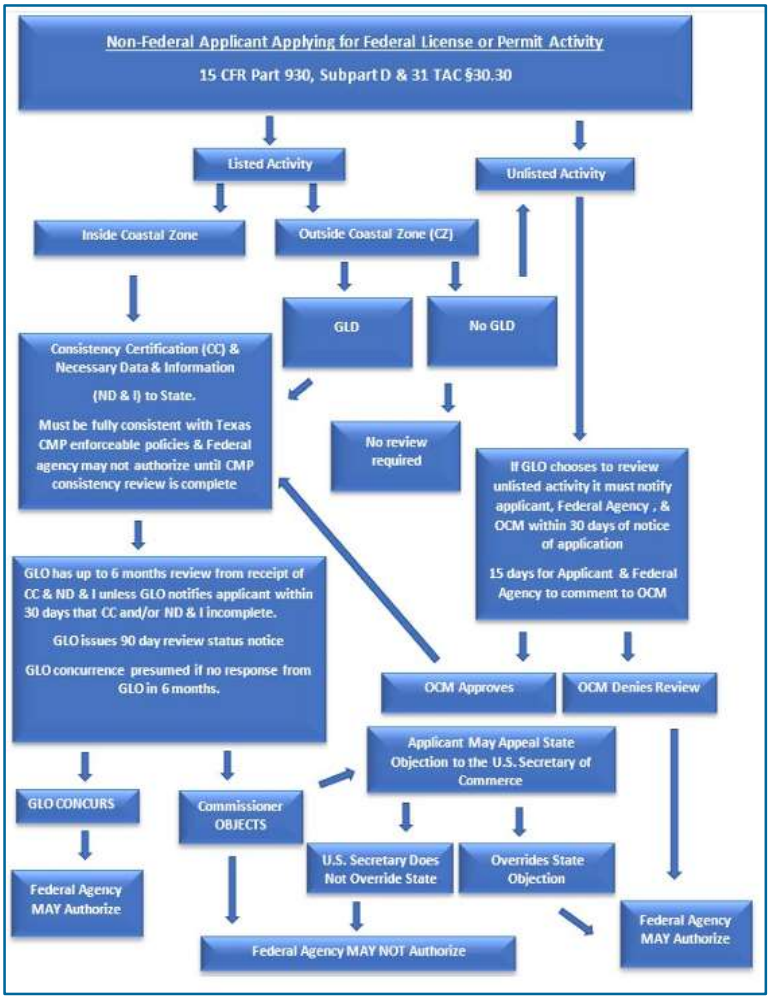
If the disagreement cannot be resolved through negotiations and/or agreement on conditions, the federal agency cannot proceed with the proposed activity over the state's objection *unless*: (1) it has been 90 days or longer since the federal agency provided the CD to the state; and (2) the federal agency has concluded that its proposed action is fully consistent with the enforceable policies of the CMP, notwithstanding the state's disagreement, or has concluded it is consistent to the maximum extent practicable (and described legal impediments to full consistency in writing).[94]

While the CZMA does not have a citizen suit provision or provide other explicit remedies for a state that believes a federal agency action is proceeding in a manner not consistent to the maximum extent practicable, federal courts have held that judicial review of a federal agency's compliance with CZMA requirements is available through the Administrative Procedure Act (APA),[95] and that the burden of demonstrating consistency to the maximum extent practicable falls on the federal agency.[96] However, even a court ruling favorable to the state can be overridden by the executive branch; this occurred in 2008, when the Department of the Navy—having suffered setbacks against plaintiffs in federal district and appellate court— sought and received a Presidential exemption from CZMA compliance based on a "paramount national interest" in the use of certain sonar technology during training exercises off the California coast.[97]

[92] Id. at 930.43.
[93] 15 C.F.R. 930.4.
[94] Id. at 930.43.
[95] See, e.g., Friends of Earth v. United States Navy, 841 F.2d 927, 936 (9th Cir.1988).
[96] See California Coastal Comm'n v. United States, 5 F.Supp.2d 1106, 1112 (S.D.Cal.1998).
[97] Section 1456(c)(1)(B) of the CZMA permits Presidential exemptions if the activity in question is "in the paramount interest of the United States. See Winter v. Nat. Res. Def. Council, Inc., 555 U.S. 7, 18, 129 S. Ct. 365, 373, 172 L. Ed. 2d 249 (2008).

Figure 4: GLO's Flowcharts Depicting Federal Consistency Review Process (Source: GLO, Federal Consistency Guidance)





Federally Authorized Activities

Federal License and Permit Activities – Threshold Issues. **Any non-federal entity— i.e., private individual, business, organization, or state or local government agency—that applies to a federal agency for a license, permit, or other authorization for an activity with coastal effects is subject to the CZMA and its regulations**. Examples of types of federal approvals that may be subject to consistency review include BOEM's approval of a wind energy development plan (COP) for a commercial lease on the OCS and permits and permissions issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

The general procedures for consistency review of federal license and permit activities are found in Subpart D of the CZMA implementing regulations (15 C.F.R. 930.50 et seq.). As with direct federal actions, the BOEM renewable energy regulations provide additional guidance for consistency reviews in the context of specific activity types and property instruments.

In general, a federal license or permit activity with reasonably foreseeable coastal effects must be conducted in a manner consistent with enforceable policies of the affected state's CMP, as determined in a consistency certification (CC) prepared by the applicant. However, there are three threshold questions that determine how the consistency review process unfolds in each situation: (1) whether the activity is listed or unlisted; (2) whether the activity takes place inside or outside the coastal zone; and (3) whether the activity qualifies as an OCS plan under the CZMA regulations.

Listed vs. Unlisted Activities. The first threshold question is whether a federal license or permit activity appears on the state coastal management program's NOAA-approved "list" of federal license and permit activities "which affect any coastal use or resource, including reasonably foreseeable effects, and which the [state] wishes to review for consistency with the management program."[98] A mandatory element of all CMPs, the list is approved as part of the original program document and can only be updated through program changes approved by NOAA-OCM. The list identifies the specific federal license and permit activities that are subject to routine consistency review by the state. States and federal agencies alike use the list to establish expectations regarding the types of federal licenses and permits for which a state expects to receive a consistency certification on a routine basis.

If federal license or permit activity is on the state's list, no authorization for that activity can be issued by a federal agency until the applicant has complied with Subpart D of the CZMA regulations. It is the responsibility of the federal agency to inform applicants for listed activities of these requirements.[99]

If the federal license or permit activity is not on the list, it is considered an "unlisted activity" for consistency review purposes. Like all state CZMA agencies, GLO is charged with keeping track of unlisted activities (e.g., through review of NEPA documents, Federal Register notices, and other intergovernmental coordination).[100] When the state identifies an unlisted activity affecting a coastal use or resource, it has 30 days after receiving notice of the proposed activity to notify the applicant, the approving federal agency, and NOAA-OCM that it seeks to review the unlisted activity for consistency with the enforceable policies of the state coastal management program.

[98] 15 C.F.R. 930.53.
[99] Id.
[100] 15 C.F.R. 930.54.

The notification to NOAA-OCM is effectively a request for ad hoc authority to review an unlisted activity, and it must include an analysis that supports the state's assertion of reasonably foreseeable coastal effects (i.e. documentation of the "effects test").[101] NOAA-OCM considers the state's request—as well as any input provided by the applicant and/or the federal agency within 15 days of receiving notice—and typically issues a decision within 30 days, though the deadline may be extended for complex issues or other reasons.[102]

If NOAA-OCM denies the state's request for unlisted activity review, the applicant does not need to comply with the CZMA regulations, and the federal agency may approve the license or permit. If NOAA-OCM approves the request to conduct an unlisted activity review, the applicant and the federal agency both must comply with the consistency review procedures in Subpart D, described below.

The Texas list, last updated in 2006, identifies specific federal license and permit activities that are subject to routine consistency review by the state. It includes, among other federally authorized activities, dredge and fill permits issued by the U.S. Army Corps of Engineers under 33 U.S.C. § 1344 (Section 404), which will be required in connection with OSW development projects located in Texas coastal waters, federal offshore waters, or both.[103]

Activities Outside the Coastal Zone. Another threshold issue is whether the activity will occur within or outside of the coastal zone. By default, a state's list of federal license and permit activities covers listed activities occurring within the state's coastal zone. If the state wishes to routinely review federal license or permit activities that occur outside the coastal zone but have reasonably foreseeable coastal effects, the list must include what is known as a geographic location description (GLD).

Typically incorporated in or attached to the list document, a GLD identifies: (a) a specific subset of federal license and permit activities; and (b) specific geographic boundaries outside the coastal zone in which such activities will be subject to consistency review. Most GLDs authorize review of activities in federal waters (OCS) or activities in other state's waters, though inland GLDs are theoretically possible. Like other modifications to the list, GLDs must be approved by NOAA-OCM based on the state's demonstration of the activity's coastal effects.[104]

As of September 2023, Texas does not have any explicitly-identified "GLDs" on its NOAA-approved list of federal license and permit activities.[105] However, the Texas list does identify "OCS lease sales within the western and central Gulf of Mexico under 43 United States Code Annotated, §1337" as one of several "federal actions outside the CMP boundary but within OCS waters, or on excluded federal land located within the coastal zone, that may adversely affect CNRAs." (The list also identifies certain Outer Continental Shelf geological and geophysical exploration permits (43 U.S.C.A. § 1340) and right-of-way activities, ocean dumping permits, and deepwater port permits as federal agency actions outside the coastal zone boundary that may adversely affect CNRAs.) **It is unclear whether NOAA-OCM would consider this broad language sufficient to constitute a GLD.** It is safest to assume that any federal license or permit activity taking place outside Texas's coastal zone—even those described as "federal actions outside the CMP boundary but within

[101] Id.
[102] Id.
[103] The Texas list is available through NOAA-OCM at https://coast.noaa.gov/data/czm/consistency/media/tx.pdf. Based on a review of the program change summaries available on NOAA-OCM's Program Change Portal, the Texas list has been updated only once since the program was established, via a program change in 2006. See https://coast.noaa.gov/czmprogramchange/#/public/change-view/1130.
[104] 15 C.F.R. 930.53.
[105] See 31 TAC 30.12. The Texas list is also available in easy-to-read form through NOAA-OCM at https://coast.noaa.gov/data/czm/consistency/media/tx.pdf.

OCS waters…that may adversely affect CNRAs"—is subject to federal consistency review once GLO requests and receives approval for an unlisted activity review, or if the applicant voluntarily agrees to submit a CC.

OCS Plans. A third threshold determination is whether the federal license and permit activity is considered an "OCS plan" under the CZMA and its regulations. An OCS plan is "any plan for the exploration or development of, or production from, any area which has been leased under the Outer Continental Shelf Lands Act …which is submitted to [BOEM] and which describes in detail federal license or permit activities."[106] In other words, when an applicant for an offshore activity has already been issued a lease, any subsequent application(s) for federal license and permit activities will be reviewed as an OCS plan.

The distinction matters because "OCS plans" are covered by special consistency review procedures, which are codified at Subpart E of 15 CFR Part 930. Applicants for OCS plans are required by the CZMA and its regulations to submit consistency certifications (and necessary data and information for consistency review) to BOEM at the same time they submit the proposed OCS plan and supporting information.[107] It is then BOEM's responsibility to transmit copies of the CC and other information to the state's CZMA agency, kicking off the procedures set out in Subpart E.

Although the BOEM regulations explicitly designate certain OCS authorizations as OCS plans to be reviewed for consistency pursuant to Subpart E (see Appendix I), **NOAA-OCM maintains that there is a difference between OCSLA oil and gas plans and renewable energy projects**. While CZMA review is automatic for OCS plans under the CZMA and its regulations, NOAA-OCM contends that when drafting the CZMA, Congress did not contemplate application of its OCSLA provisions to renewable energy, and therefore renewable projects do not enjoy the same mandatory CZMA review.[108] According to a 2021 presentation to the Intergovernmental Renewable Energy Task Force for the Gulf of Mexico by NOAA-OCM, "If non-federal applicant applies to BOEM for approval of a renewable energy project on the OCS, state CZMA review is not automatic."[109] Rather, NOAA-OCM maintains, to be entitled to routine consistency review of renewable energy activities on the OCS, a state must "list" the specific OCSLA authorization and have a NOAA-approved GLD for federal waters. (NOAA-OCM acknowledges, "This is different than state review of OCSLA oil and gas plans."[110])

If a state CMP does not list the OCSLA authorization and/or have a GLD for the renewable energy activity, the state must request and receive NOAA-OCM approval to perform an unlisted activity review, unless the applicant voluntarily agrees to submit to CZMA review.[111] **In Texas, where the federal consistency list does not specifically mention renewable energy leases and approvals under OCSLA, the TCMP might consider beginning discussions with NOAA-OCM about necessary procedural steps in the near future, well before BOEM will consider approval of a COP.**

[106] 15 C.F.R. 930.11.
[107] 15 C.F.R. 930.76; see also 16 U.S.C. § 1456(C)(3)(b).
[108] Personal communication between ELI and NOAA-OCM official, circa 2017. See also NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW, *supra*, at 17. ("[G]enerally, states have not had to describe [on their lists] geographic areas in federal waters where OCS oil and gas plans would be subject to state CZMA review. This is because the CZMA mandates such reviews and initially oil and gas projects were not far offshore. As the industry moves farther offshore, where a state should have CZMA review may not be as easily determined….[The state's] ability to review [OCS plans] stops at the point where coastal effects are not reasonably foreseeable. Whether coastal effects are reasonably foreseeable is a factual matter to be determined by the State, the applicant and BOEM on a case-by-case basis.")
[109] Kaiser, NOAA-OCM, *supra*.
[110] Id.
[111] According to NOAA-OCM, for all of the renewable energy projects in the Atlantic to date, such projects "have either been within a state's GLD or the applicant voluntary agreed to state CZMA review." Kaiser, NOAA-OCM, *supra*.

Federal License and Permit Activities – Consistency Review Procedures. Once it is determined that an applicant for a federal permit or license activity must prepare a CC in connection with the application, the federal consistency review process is governed by the procedural requirements set out in Subpart D of the CZMA regulations (except for qualifying OCS plans). As part of the permit application (though not necessarily at the same time the application is submitted), the applicant must provide to the federal permitting agency a certification that the proposed activity complies with and will be conducted in a manner consistent with the enforceable policies of the state's CMP.[112] At the same time, the applicant must provide a copy of the CC to the state CZMA agency, accompanied by "necessary data and information" for the consistency review.[113]

Upon request of the applicant, the state CZMA agency must assist the applicant in developing the necessary assessment and findings.[114]

Under Subpart D, "necessary data and information" includes several specific elements. These include:

- a copy of the federal permit application;
- a copy of other materials provided to the federal agency in support of the application that are relevant to the state's CMP, including but not limited to "a detailed description of the proposed activity, its associated facilities, the coastal effects, and any other information relied upon by the applicant to make its certification"; and
- information specifically identified in the CMP as necessary data and information for a CC. (Note: the GLO has created a "CC checklist" for non-federal applicants to use as a guide for the necessary data and information when submitting consistency review requests to the GLO (see Box I).

Box I: Necessary Data and Information in Texas: GLO's CC Checklist for Non-Federal Applicants

- "All material relevant to the CMP's [sic] provided to the Federal agency in support of the application (which may include a list identifying all federal, state, and local permits or authorizations subject to the CMP and required for the proposed activity and its associated facilities)
- A detailed description of the proposed activity and its associated facilities with enough information to adequately permit an assessment of the probable effects on CNRAs and coastal effects)
- Any other information relied upon by the applicant to make its consistency certification.
- Maps, diagrams, and technical data that includes mitigation plan if required
- An alternative analysis
- Habitat characterization
- Any required surveys for the license or permit
- Detailed information shall be submitted when a written description alone will not adequately describe the proposal
- A brief set of findings with an explanation on how their effects are consistent with Texas CMP goals and enforceable policies
- Signed GLO CMP Consistency Form or equivalent documentation with signature."

Source: GLO, CONSISTENCY CERTIFICATION (CC) CHECKLIST (n.d.), available at: https://www.glo.texas.gov/coast/coastal-management/federal-consistency/files/consistency-certification-checklist.pdf.

[112] See NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW, *supra*.
[113] 15 C.F.R. 930.57, 930.58.
[114] 15 C.F.R. 930.58.

Once the applicant has provided the state with a CC and all the necessary data and information, the state's official six-month review period begins. (If the applicant's initial submission to the state does not include all the necessary data and information, the state has 30 days to notify the applicant and federal agency of such, and the six-month period will not begin until the missing data and information has been received. The regulations also allow the state agency and applicant to mutually agree in writing to stay or "toll" the six-month review period.)[115]

At this point, the state must ensure "timely" public notice of the proposed activity is issued in the areas of the coastal zone likely to be affected by the activity; hearings are not mandatory, but the state must provide a comment period long enough to reasonably inform the public, obtain comments, and develop a decision.[116] If possible, state CZMA agencies are encouraged to issue joint public notices (and hold joint public hearings) with other federal and state agencies for efficiency.[117]

Although the state has six months to perform the consistency review, Subpart D urges state agencies to notify the applicant and federal agency of its concurrence or objection at "the earliest practicable time," and to provide updates if the review will last longer than three months. At the end of the six-month review period, if the state agency has not responded to the CC, concurrence is presumed.[118] After the state has issued a concurrence (or is presumed to concur with) the applicant's CC, the federal agency may proceed with an approval of the license or permit application.[119]

As with CDs, conditional concurrences are available for consistency certifications. Subpart D encourages the state agency and applicant to work together (if necessary) during the six-month review period to agree on conditions that would permit the state to concur, and to consult with the approving federal agency to ensure any proposed conditions would also satisfy federal requirements.[120]

In Texas, program guidance indicates that as part of its technical review of a CC, "GLO will evaluate whether project impacts will require mitigation. The GLO has a "no net loss" goal which may be achieved by requiring applicants to avoid, minimize, or, when practicable, compensate for unavoidable impacts to functions or values of critical areas by requiring mitigation."[121] Mitigation measures are an example of potential proposed conditions.

[115] 15 C.F.R. 930.60.
[116] Id. at 930.61.
[117] Id.
[118] 15 C.F.R. 930.62.
[119] If the federal agency determines prior to the state's response that the license or permit should be denied on other grounds, it is required to immediately notify the applicant and the state agency. 15 C.F.R. 930.62.
[120] 15 C.F.R. 930.62.
[121] GLO, FEDERAL CONSISTENCY GUIDANCE, *supra*, at 20.

Box J: Roles of TCEQ and the Texas Railroad Commission

The TCMP's Federal Consistency Guidance explains that in some cases, "GLO may defer the technical review to [TCEQ or the Railroad Commission] if a Clean Water Act §401 Water Quality Certification is required. In these instances, GLO may defer to TCEQ or the RRC because they are networked agencies who have the requisite legal authority to issue §401 certifications in Texas." (For discussion of water quality certification in Texas, see the Water Quality section of this report.)

According to the guidance, if a matter is deferred to the TCEQ or the RRC, the respective agency issues or denies the certification and "conduct[s] the state consistency review to ensure the proposed action is consistent with the CMP goals and enforceable policies. The TCEQ and RRC's agency rules and procedures provide for public notice, hearing, and comment on the water quality certification. After the decision is issued, the GLO is notified of the decision by email."

Source: GLO, FEDERAL CONSISTENCY GUIDANCE, *supra*, at 20.

If the state CZMA agency objects to the CC and is unable to reach agreement on conditional concurrence, the state must notify the applicant, the federal agency, and NOAA-OCM of the objection before the end of the six-month review period. An objection may be based on a conclusion that, after evaluating the CC, the proposed activity is inconsistent with the enforceable policies of the CMP. An objection also can be based on a determination that the applicant has not supplied the necessary data and information, even after a written request from the state agency. In either case the objection may, but is not required to, describe alternatives that may allow the proposed activity to be conducted in a manner consistent with the state's enforceable policies. [122]

In Texas, objections may be issued by the Land Commissioner following an "elevated consistency review." A proposed federal action "may be referred to the Commissioner for an elevated consistency review if at least three (3) CCAC representatives believe there is a significant unresolved issue regarding consistency with CMP goals and enforceable policies." It is then up to the Commissioner to determine if "an objection is necessary for either lack of information or because the proposed action or activity is inconsistent with the CMP goals and enforceable policies…"[123]

Once the federal agency has been notified of the state's objection, the federal license or permit may not be issued unless or until the applicant has made a successful appeal.[124] The CZMA and its regulations establish an administrative appeal process for applicants for federal license and permit activities who receive objections to their consistency certifications. Subpart H of the CZMA regulations authorizes the Secretary to override the state's objection for two reasons: the activity is "consistent with the objectives of the CZMA;"[125] or the activity is otherwise "necessary in the interest of national security" (i.e., national security interest would be significantly impaired if the activity does not go forward as proposed).[126]

[122] Id. at 930.63.
[123] GLO, FEDERAL CONSISTENCY GUIDANCE, *supra*, at 20.
[124] 15 C.F.R. 930.64.
[125] To override a state's objection based on the objectives of the CZMA, the Secretary must make three findings: (1) the activity furthers the national interest in a CZMA objective or purpose in a significant or substantial manner; (2) the national interest furthered outweighs the adverse coastal effects of the activity (including cumulative effects); and (3) there is no reasonable, available alternative that would allow the activity to be conducted in a manner consistent with the CMP's enforceable policies. 15 C.F.R. 930.121. See also NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW, *supra*, at 19.
[126] 15 C.F.R. 930.122.

Beyond these substantive grounds, the Secretary (or NOAA-OCM) may override the state's objection on procedural grounds (e.g., failure to meet review timelines or objection requirements)—and likewise, an applicant's appeal to the Secretary may be dismissed for failure to comply with the appeal procedures.[127] If the Secretary overrides the state's objection, the federal agency may issue authorization for the project.[128] If the Secretary declines to override the objection, the project may not be authorized by the federal agency. Either decision by the Secretary is a final action appealable in court under the APA.[129]

Box K: Ongoing Monitoring for Consistency

The CZMA regulations at Subpart D include a provision that requires the federal and state agencies to "cooperate" in efforts to monitor federal license and permit activities that have previously been approved, "in order to make certain that such activities continue to conform to both federal and state requirements."

If the state CZMA agency determines that activities previously deemed to be consistent are later being conducted in a way (or are having an effect on any coastal use or resource) "substantially different than originally described" and therefore are no longer consistent with the CMP, the state must notify the federal agency, the applicant, and NOAA-OCM of a request for "remedial action." Remedial actions sought must be linked to the substantially different coastal effects. If 30 days pass and the state still maintains non-compliance with the CMP, NOAA-OCM may intervene to require an amended CC or compliance with the originally approved CC.

Alternatively, if the applicant realizes between receiving the original CC and commencing the activity that coastal effects will be substantially different, further coordination with the state, federal agency, and NOAA-OCM may result in a supplemental CC.

Source: 15 C.F.R. 930.65-.66.

State Consistency with the TCMP

In Texas, under the Coastal Coordination Act, some state agencies are required to comply with the goals and policies of the TCMP when taking certain actions in or affecting CNRAs.[130] The TCMP regulations (31 TAC 29.11) include a list of the specific state agency actions and rules that are subject to the state consistency requirement. **At the state level, the TCMP goals and policies apply only to agency actions expressly identified in this regulation**.[131] Examples of actions on the list which may be relevant to offshore wind projects can be found in Box L.

According to the TCMP's 2021-2022 biennial report, the role of the program is to provide "interagency coordination on significant policy issues and major coastal development projects, allowing networked agencies to manage their own programs on a day-to-day basis."[132] The GLO may meet from time to time with one or more networked agencies to "enhance agency communication," discuss agency consistency review procedures,

[127] 15 C.F.R. 930.129; see also NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW, *supra*, at 18.
[128] 15 C.F.R. 930.129.
[129] NOAA-OCM, FEDERAL CONSISTENCY OVERVIEW, *supra*, at 16.
[130] Tex. Nat. Res. § 33.205.
[131] 31 TAC 29.11.
[132] GLO, TCMP Biennial Report, *supra*, at 13.

and answer process questions between agencies.[133] Agencies also must keep a record of all proposed actions subject to the TCMP and provide that record to the TCMP coordinator on a quarterly basis. [134] However, it is the networked agencies themselves who are generally responsible for enforcing the TCMP for individual projects (i.e., through enforcement of the permits and authorizations they issue). The "primary technique" for ensuring consistency of state agencies' actions with TCMP goals and policies is the Land Commissioner's certification that agency rules are consistent.[135] Moreover, after a networked agency's rules are certified by GLO as consistent with the TCMP goals and policies, the agency is authorized to adopt consistency review "thresholds" limiting TCMP's authority to review its individual actions.[136] Thresholds must be "set at a level that reasonably calculated to ensure that actions that may have unique and significant adverse effects on coastal natural resource areas are above the threshold for referral" to the Land Commissioner.[137]

"If an agency's rules are consistent, then its activities should be consistent."

- GLO

When a state agency proposes an action subject to consistency review that may adversely affect a CNRA, the agency must issue a written determination that the proposed action is consistent with the TCMP goals and policies *or will not have any "direct and significant impacts" on applicable CNRAs*. (For purposes of this requirement, "direct" means "causally linked" and "significant" means "appreciable impacts on CNRAs.")[138] Additional information supporting the determination—referred to here as a state consistency determination (SCD) to differentiate from federal CDs— is required for actions that exceed the threshold(s) for referral. In these cases, a written explanation of the basis for the agency's determination must be provided, including a description of the proposed action and its probable impacts on CNRAs, the identification of the applicable TCMP goals and policies, and an explanation of how the proposed action is consistent with such goals and policies or why the action does not adversely affect any CNRAs.[139] With respect to public notice, the TCMP regulations provide that "[w]hen publishing notice of receipt of an application or request for agency proposed action, the agency shall include a statement that the application or requested action is subject to the CMP and must be consistent with the CMP goals and policies."[140]

The CCA authorizes the Land Commissioner to revoke certification of an agency rule upon a finding that the agency has implemented or amended certified rules "in a manner that conflicts with the goals and policies" of the TCMP.[141] The CCA also gives the Land Commissioner authority to review an individual action by a state or local agency for consistency with the TCMP, but only under very limited circumstances. These include cases in which an SCD is contested by a person with proper procedural standing[142] and there is a "significant unresolved dispute"[143] regarding the proposed action's consistency with the TCMP. If consistency review thresholds are in

[133] Id.
[134] 31 TAC 29.30.
[135] 31 TAC 26.1; see also Tex. Nat. Res. § 33.2052.
[136] GLO, TCMP Biennial Report, *supra*, at 13.
[137] 31 TAC 26.13.
[138] 31 TAC 29.30.
[139] Id.
[140] Id.
[141] Tex. Nat. Res. § 33.2052.
[142] Under the CCA, "The consistency determination for the proposed action must have been contested by: (A) a member of the committee or an agency that was a party in a formal hearing under Chapter 2001, Government Code, or in an alternative dispute resolution process; or (B) another person by the filing of written comments with the agency before the action was proposed if the proposed action is one for which a formal hearing under Chapter 2001, Government Code, is not available…" Tex. Nat. Res. § 33.205.
[143] The person with proper procedural standing (see previous note) must allege a significant unresolved dispute, and three members of the committee (other than the Sea Grant representative) must agree there is a significant unresolved dispute that should be referred to the TLC for review. Tex. Nat. Res. § 33.205.

effect, the Land Commissioner may only review proposed actions that exceed applicable thresholds or which may "directly and adversely affect a critical area, critical dune area, coastal park, wildlife management area or preserve, or gulf beach and a state agency contested the agency's consistency determination in a formal hearing."[144] Upon referral to the Land Commissioner, the commissioner must consider and act on the matter within 25 days.[145]

Coordination Mechanisms

In addition to mandating consistency of certain state actions with TCMP goals and policies, the CCA and its regulations include various provisions to foster coordination and efficiency at the state-to-state level. These include provisions for coordination of major actions; coordinated preparation of SCDs, preliminary consistency reviews, and permitting assistance.

Major Actions. If a state (or local) agency is taking an action related to an activity for which a federal environmental impact statement (EIS) is required under NEPA, the state or local action is classified as a "major action" under the TCMP policies. Under the TCMP regulations, these entities must avoid and otherwise minimize the cumulative adverse impacts to CNRAs of their major actions relating to the activity. In considering impacts, the state and local agencies must, to the greatest extent practicable, consider the cumulative and secondary adverse effects (as those concepts are described in the federal environmental impact assessment process). Major actions also trigger special coastal coordination procedures: prior to taking a major action, the state and local agencies with jurisdiction over the activity are required to "meet and coordinate their major actions relating to the activity."

Coordinated Preparation of the SCD**.** To promote coordination among the networked state agencies, the regulations provide that when more than one state agency is involved in issuing an SCD for a single activity, state agencies should consider coordinated preparation of the SCDs or designation of a lead agency for development of a single SCD. In cases where multiple agencies will use a single SCD, it must be completed before any of the agencies take final action on a permit and/or authorization covered by the state consistency requirement. The applicant or project sponsor has the option to make a request in writing to the TCMP coordinator expressing a preference for either coordinated preparation of multiple SCDs or designation of a lead agency for a single SCD. The Land Commissioner may direct the TCMP coordinator to respond to the request and facilitate coordinated SCDs or a single SCD under guidance issued by the Land Commissioner.[146]

Preliminary Consistency Reviews. The CCA directs the Land Commissioner to establish a process by which a permit applicant, agency, or local government proposing an action subject to the TCMP can request and receive a "preliminary consistency review." As explained in the regulations establishing such a process, "Preliminary consistency reviews are intended to create greater predictability in the permitting process by providing applicants with a non-binding, advisory set of preliminary recommendations and findings regarding a proposed action's likely consistency with goals and policies of the CMP."[147]

The preliminary consistency review process is triggered when an applicant, agency, or local government ("subdivision") submits a request in writing to the GLO's Permitting Assistance Coordinator, who facilitates the process. Upon receiving the request, the Coordinator files a notice for publication in the Texas Register

[144] Tex. Nat. Res. § 33.205.
[145] Id.
[146] 31 TAC 29.11.
[147] 31 TAC 28.3.

soliciting public comment on the consistency of the proposed activity and forwards the request to each agency or local government required to permit or approve the activity, as well as to the members of an interagency group known as the Permitting Assistance Group.[148] Made up of representatives from each of the CCAC member agencies and chaired by the Permitting Assistance Coordinator, the Permitting Assistance Group is primarily responsible for conducting and coordinating preliminary consistency reviews.[149]

Public comments are accepted in writing for 30 days, at which time they are shared by the Coordinator with the Permitting Assistance Group, which meets as necessary to discuss the request for preliminary review.[150] Next, no later than 45 days after the request for preliminary consistency review, each permitting agency or local government provides the Permitting Assistance Group a preliminary indication of whether the agency anticipates approving or denying the application. If the preliminary statement anticipates denying the application or finding the proposed activity inconsistent with the CMP, the statement must include an explanation and the agency's recommendations for resolving the grounds for denial/inconsistency in a way that would allow the application/activity to be approved/ consistent. These preliminary statements may be "qualified" in cases where an agency or local government finds there is insufficient information, to include an identification of "any significant issues that are likely to arise during the regular permitting process and that may result in denial of the application."[151]

Box L: State Agency Actions Subject to TCMP Consistency Requirement

In Texas, the agency actions subject to the state consistency requirement which may be relevant to offshore wind include, but are not necessarily limited to:

- An action by GLO or School Land Board for lease of state-owned lands when issuing or approving a: geophysical permit; coastal easement; miscellaneous easement; coastal lease; surface lease; structure registration; or certification of a local government beach access or dune protection plan.
- Issuance of a certificate of convenience and necessity by the Public Utility Commission of Texas.
- The RRC's issuance of a wastewater discharge permit or a certification of a federal permit for the discharge of dredge or fill material.
- The Texas Transportation Commission's approval of acquisition of a site for the placement or disposal of dredge material from the expansion, relocation, or alteration of the Gulf Intracoastal Waterway.
- The THC's issuance of a permit for destruction, alteration, or taking of a coastal historic area or a review of a federal undertaking affecting a coastal historic area.
- The Texas Natural Resource Conservation Commission's certification of a federal permit for the discharge of dredge or fill material; issuance or approval of a wastewater discharge permit; or creation of a special purpose district or approval of bonds for the purpose of construction of infrastructure on coastal barrier islands.
- The TPWD's issuance or approval of an oyster lease; a permit for taking threatened or endangered species; a permit for disturbing mark, sand, shell, or gravel on state-owned land; or a development (by an entity other than the TPWD) that requires the use or taking of any public land in a state park, wildlife management area, or preserve.
- An agency's adoption or amendment of a rule governing one of the above actions.

Source: 31 TAC 29.11.

[148] 31 TAC 28.20.
[149] 31 TAC 28.2-.3, 28.11.
[150] 31 TAC 28.20.
[151] 31 TAC 28.21.

Permit Service Center

A notable feature of the Texas coastal management regime is **the state's commitment to permitting assistance, including through the Permit Service Center (PSC).** Housed within GLO, the PSC was established pursuant to a statutory mandate to help streamline the environmental permitting process for projects in the coastal area.[152]

"The purpose of the PSC is to serve as an outlet for basic permit information and provide applicants with permitting assistance for proposed activities in the coastal zone subject to the [TCMP]."

31 TAC 28.10

Under a robust permitting assistance framework established by GLO regulations, permitting assistance "will be provided to applicants for proposed activities in the coastal zone requiring either one or more agency or subdivision permits or proposed actions subject to the CMP." The PSC also provides assistance for certain "equivalent federal actions": National Pollutant Discharge Elimination System permits issued by U.S. EPA, and Section 404 dredge and fill permits issued by the U.S. Army Corps of Engineers.[153] (For example, the PSC may arrange for a planned project to be discussed during the Corps' monthly Joint Evaluation Meeting, a monthly interagency meeting where USACE and other resource agencies gather to "informally discuss proposed projects, answer questions, and provide guidance."[154]) According to the GLO, PSC staff also are familiar with local permitting and approval requirements and can assist applicants in determining the appropriate local office(s) to contact.[155]

The PSC's services are "optional and provided at no charge to [applicants] new to the coastal permitting process or who would like the convenience and benefits of working with the [PSC's] staff." The PSC's staff can help a project proponent determine which permits are required and which agencies and offices to contact.[156] On top of facilitating direct access to regulatory agency staff members and providing technical assistance, the TCMP considers the PSC a forum for identifying interagency conflicts and resolving conflicts between agencies and applicants.[157] Designed to be "one-stop shops" for projects in the coastal zone, there are two PSC offices, one for the Upper Coast and one for the Lower Coast. The Upper Coast PSC, located in Galveston, covers sites between the Louisiana border and Live Oak Bayou. [158]

In addition to chairing the Permitting Assistance Group (see previous section), the Permitting Assistance Coordinator—who is a GLO staff member designated by the Land Commissioner—has several additional permitting assistance roles. Upon request, the PAC provides direct assistance to applicants, including preapplication assistance that may involve providing a list of the permits or other approvals necessary for a proposed activity and a "simple, understandable statement" of the permitting requirements that "gives the applicant an initial indication of how the proposed activity should be designed, carried out, or maintained to receive the permits or approvals." Applicants also receive a list of all the information needed by each permitting agency to declare the application complete, and a "coordinated schedule" for each agency's decision on the

[152] See Tex. Nat. Res. § 33.205; GLO, Coastal Management: Permitting, https://www.glo.texas.gov/coast/coastal-management/permitting/index.html (accessed Aug. 2023).
[153] 31 TAC.10.
[154] GLO, Living Shorelines Guide, *supra*, at 43.
[155] Id.
[156] Id.
[157] GLO, Coastal Management: Permitting, https://www.glo.texas.gov/coast/coastal-management/permitting/index.html (accessed Aug. 2023).
[158]GLO, Living Shorelines Guide, *supra*, at 43.

application(s).[159] If needed, the PAC will also provide basic technical assistance in completing the application(s), giving the applicant an "opportunity to obtain explanations or clarifications about the information or data specifically required for each application and how to complete and submit each application." [160] It is also the responsibility of the PAC to monitor the status of the application until the permitting agency has all the information necessary to make a decision.[161]

The PAC is responsible for scheduling and administering meetings of the CCAC's Permitting CIT, which serve as an interagency forum to "discuss recommendations regarding particular permit applications or other proposed actions subject to the CMP, or any other coastal permitting or regulatory matters." The PAC also has administrative responsibilities such as documenting requests for assistance, tracking permit reviews, and providing reports and data on permitting assistance activities as necessary. Performing these various functions provides the PAC with a sense of the bigger, interagency picture, which enables the PAC also to "help identify any permitting issues, policies, or practices that create the potential for delay in permitting decisions" (e.g., interagency disagreements) and "work with permitting agency or local government representatives and [the CIT] to develop and implement recommendations to reduce duplication, improve, and streamline permitting processes."[162]

Local Consistency with TCMP

Under Texas law, the only two proposed actions by a local government ("subdivision") that must be consistent with the TCMP goals and policies are: (1) issuance of a dune protection permit; and (2) a beachfront construction certificate.[163] (These permissions are discussed in the following section.) Moreover, to be subject to the consistency requirement, one of these actions must authorize an activity meeting one or more of the following criteria:

> (1) construction activity that is located 200 feet or less landward of the line of vegetation and that results in the disturbance of more than 7,000 square feet of dunes or dune vegetation;
>
> (2) construction activity that results in the disturbance of more than 7,500 cubic yards of dunes;
>
> (3) a coastal shore protection project undertaken on a Gulf beach or 200 feet or less landward of the line of vegetation and that affects more than 500 linear feet of Gulf beach; or
>
> (4) a closure, relocation, or reduction in existing public beach access or public beach access designated in an approved local government beach access plan, other than for a short term. (31 TAC 29.60.)

As explained by GLO, "Local government beach/dune permitting authorities that have certified or conditionally certified dune protection and beach access plans are responsible for issuing dune protection permits and beachfront construction certificates for construction activities in the beach/dune system." (All dune protection permits and beachfront construction certificate applications are subject to review by the GLO to ensure their compliance with the Open Beaches Act, Dune Protection Act, and GLO's Beach Access and Dune Protection Rules.)[164]

With respect to the requirement that dune protection permits be consistent with the TCMP, consistency is presumed upon the local government's determination pursuant to GLO's beach access and dune protection

[159] 31 TAC 28.13.
[160] 31 TAC 28.13.
[161] 31 TAC 28.11.
[162] Id.
[163] 31 TAC 29.60.
[164] TCMP Biennial Report, *supra*, at 13.

rules that the proposed activity "will not materially weaken any dune, or materially damage any dune vegetation, or reduce the effectiveness of any dune as a means of protection against erosion and high wind and water."[165] The same is true for the local government's determination that the proposed activity is consistent with state-mandated beachfront construction standards and does not interfere with the public's right to use and have access to and from the Gulf beach.[166]

Like a state agency subject to the TCMP, a local government taking one of these actions must affirm in a written determination that it has taken into account the TCMP goals and policies.[167] Prior to taking a final action, the local government can request a preliminary consistency review (described in the previous section). As with state agencies' consistency determinations, the circumstances in which a local consistency determination can be reviewed by the Land Commissioner are limited and require persons contesting the determination to have certain procedural standing and follow specific procedural steps.[168] The only basis on which the Land Commissioner may "protest" a proposed local government action is that the proposed action is inconsistent with the TCMP goals and policies.[169] If the commissioner protests a proposed action, she reports her findings to the local government, which then determines whether and how to amend the proposed action to make it consistent.[170] If the Land Commissioner finds that the local government did not subsequently modify the proposed action according to her recommendations, she must refer the matter to the attorney general for a final opinion on the consistency of the proposed action.[171]

Other Coastal Policies and Plans

There are various other Texas coastal policies and plans that are not directly applicable to OSW development, but which may indirectly influence the location and operation of OSW facilities. The following include some examples but are not intended to be an exhaustive list of the state's coastal policies and initiatives.

Coastal Area Planning: Beaches and Dunes

If OSW energy generated offshore of Texas is delivered to the mainland grid in or through Texas, additional construction will be required to transition the submarine transmission cables from water to land. Coastal habitats will be directly impacted at the marine-shore connection location through habitat loss from excavation. Additional effects could include erosion, destabilization, and vegetation loss, which would be particularly troublesome in beach and dune environments.

In Texas, Gulf of Mexico beaches and the public's right to use them are protected by the Open Beaches Act and the Dune Protection Act. Under these laws, the GLO is responsible for overseeing local governments' integrated management of beach access and dune protection within their jurisdictions. In general, development on beaches "may not impair public access to the beach or materially weaken dunes or dune vegetation." [172]

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[165] Id; 31 TAC 15.4.
[166] 31 TAC 29.60.
[167] 31 TAC 29.60.
[168] See 31 TAC 29.64-65.
[169] 31 TAC 29.64-68.
[170] 31 TAC 29.71.
[171] 31 TAC 29.74.
[172] GLO, STEPS: CONSTRUCTION ON THE TEXAS GULF COAST—BEACHFRONT CONSTRUCTION CERTIFICATES AND DUNE PROTECTION PERMITS (n.d.), https://www.glo.texas.gov/coast/coastal-management/forms/files/beachfront-construction-faq.pdf (accessed July 12, 2023).

Local Beach and Dune Planning Requirements. The Dune Protection Act and the Open Beaches Act require cities and counties governments to adopt and implement programs for the preservation of dunes and the preservation and enhancement of use of/access to public beaches, respectively.[173] The GLO requires local governments adopting these programs to integrate them into "a single plan consisting of procedural and substantive requirements for management of the beach/dune system within their jurisdiction." The plans must be consistent with the Open Beaches Act, the Dune Protection Act, and GLO's integrated management rules; where possible, local plans must incorporate the local government's ordinary land use planning procedures. [174] The GLO's regulation also requires the single plan to "demonstrate the coordination, on the local level, of the dune protection, beach access, erosion response, and flood protection programs…" and integrate these programs into one plan for the management of the beach and dune system within its jurisdiction. [175] New and amended local government plans are approved by the entity's governing body, then submitted to GLO for review, comment, and certification.[176]

Permits and Certifications. For most construction activities within 1,000 feet of the mean high tide line (or seaward of the first public road, whichever distance is greater), the project proponent must apply for a beachfront construction certificate and a dune protection permit to the local government. (Activities in areas not subject to local government regulation, like national and state parks and wildlife management areas, do not require local approval; state-owned public land other than parks and refuges are subject to local government regulation and require approval.[177])

Construction means causing any building, bulkheading, filling, clearing, excavation, or substantial improvement to land or the size of a structure. - GLO

A **beachfront construction certificate** is required for "construction" on land adjacent to and landward of the public beach within 1,000 feet of mean high tide (or up to the first public road generally parallel to the beach, if it is farther than 1,000 feet), if the construction "affects or may affect public use of and access to public beaches."[178] The "public beach" consists of the area bounded by the mean low tide line and the line of vegetation, which is used to determine the landward extent of the public beach (and where there is no marked vegetation line, the regulation has procedures for setting the landward boundary no more than 200 feet inland from mean low tide). [179]

A **dune protection permit** is required for an activity that will "(A) damage, destroy, or remove a sand dune or a portion of a sand dune seaward of a dune protection line or within a critical dune area; or (B) kill, destroy, or remove in any manner any vegetation growing on a sand dune seaward of a dune protection line or within a critical dune area."[180] (For dune protection permits, there are exceptions for livestock grazing, recreational vehicles, and "exploration for and production of oil and gas and reasonable and necessary activities directly related to such exploration and production, including construction and maintenance of production and gathering facilities located in a critical dune area which serve wells located outside of a critical dune area, provided that such facilities are located no farther than two miles from the well

[173] 31 TAC 15.3.
[174] Id.
[175] Id.
[176] 31 TAC 15.3.
[177] For details on exceptions, see 31 TAC 15.3.
[178] Id.
[179] Id. When a Beachfront Construction Certificate/Dune Protection Permit application is submitted to the GLO for review and comment, the line of vegetation depicted on any documentation us subject to verification by the General Land Office.
[180] 31 TAC 15.3.

being served…"[181]) Under the Dune Protection Act, which charges the Land Commissioner with responsibility for protecting critical dune areas, GLO has identified as "critical dune areas" all dunes within 1,000 feet of mean high tide. [182] Local governments are responsible for identifying "critical dune lines" to preserve, at a minimum, dunes within the critical dune area, and public notice and hearing opportunity must be provided before a critical dune line is established or modified.[183]

Minimum application contents are set out in GLO's regulations, but local governments are free to require additional information. [184] According to the GLO, "[o]nce the local government receives a complete application, the application is sent to the Texas General Land Office to review and provide comments."[185] After GLO review, the local government determines whether the proposed construction is consistent with its local dune protection and beach access plan; if so, the project can be approved and the certificate and permit issued to the applicant.[186]

Minimum standards established by the GLO provide that local governments may not issue a beachfront construction certificate if it determines that the construction:

> "(1) reduces the size of the public beach in any manner;
> (2) closes or otherwise impairs any existing public beach access point unless the local government simultaneously provides or requires the permittee to provide equivalent or better public access; or
> (3) includes a proposal to construct a concrete slab or other impervious surfaces within 200 feet of the line of vegetation or within the eroding area boundary (if such a boundary is established in the local beach/dune plan), whichever distance is greater" (31 TAC § 15.5).[187]

Texas Coastal Resiliency Master Plan

History of the Texas Coastal Resiliency Master Plan. The Texas Coastal Resiliency Master Plan (TCRMP) originated in the GLO. According to the GLO, "Recognizing that Texas did not have a state-sponsored coastal plan, the Land Commissioner directed the Coastal Protection Division to develop the TCRMP in alignment with the GLO's mission to restore, enhance, and protect the state's coastal resources."[188] The plan was developed using federal CZMA funds pursuant to the TCMP's 2011-2015 NOAA-approved assessment and strategy document.[189] The first version of the plan was released in 2017, with a second installment in 2019. The most recent iteration of the plan was issued by GLO in 2023, and GLO has indicated it intends to move forward on four-year planning cycle.[190]

[181] 31 TAC 15.3.
[182] Id., see also Tex. Nat. Res. § 63.121 (Dune Protection Act).
[183] 31 TAC 15.3.
[184] Id.
[185] GLO, STEPS: CONSTRUCTION ON THE TEXAS GULF COAST—BEACHFRONT CONSTRUCTION CERTIFICATES AND DUNE PROTECTION PERMITS, *supra*.
[186] Id.
[187] There are exceptions for impermeable surfaces related to habitable structures. 31 TAC 15.5.
[188] TCMP Biennial Report, *supra*, at 13.
[189] The Plan was developed under a 309 strategy from the 2011-2015 CMP Assessment and Strategies document, at the time called the Coastal and Marine Spatial Planning effort. See TCMP 309 ASSESSMENT 2021-2025, *supra*.
[190] GLO, 2023 TEXAS RESILIENCY MASTER PLAN at 3, available at: https://www.glo.texas.gov/coast/coastal-management/coastal-resiliency/resources/files/2023-tcrmp-book.pdf.

The purpose of the TCRMP is to "guide state planning, resources, and funding to build a more resilient Texas coastal zone and defend against prevailing coastal vulnerabilities."[191] The GLO holds the TCRMP out as a "list of high-priority coastal resiliency initiatives and projects," a "snapshot of the needs of the state for coastal resiliency at the time of publication," and an "opportunity for the GLO to align coastal resiliency priorities with feedback from stakeholders, coastal experts, and other public agencies."[192] While the 2023 plan identifies a list of Tier 1 projects that will receive priority for GLO coastal restoration funding, funding is not guaranteed for any project described in the plan.[193] Still, the Master Plan is intended to be used to guide decisions at all levels of government, including by federal agencies whose actions are subject to federal consistency review. The plan's data, modeling, and/or list of anticipated coastal restoration activities and locations may be useful to OSW and transmission developers considering locations for coastal infrastructure in the coming decade.

State-Federal Partnerships for Coastal Protection and Restoration

In the introduction to the 2023 TCRMP, the Land Commissioner notes that the TCRMP "should be viewed as complementary and concurrent to the massive investments being made in partnership with the U.S. Army Corps of Engineers through the Coastal Texas Program to reduce risk from hurricanes and restore vast areas where wildlife habitats have been degraded."[194] Currently, two USACE programs are underway on the Texas coast: the Sabine-to-Galveston Coastal Storm Risk Management Program, which is in the implementation phase, and the Coastal Texas Program.

Led by the USACE Galveston District under Civil Works authority, the Coastal Texas Program (formally known as the Coastal Texas Protection and Restoration Feasibility Study) began in 2014 with the purposes of evaluating large-scale coastal storm risk management (CSRM) and ecosystem restoration measures to provide Texas coastal communities with "multiple lines of defense to reduce impacts from a wide array of coastal hazards."[195] As explained by the GLO, the Coastal Texas Program "includes a combination of CSRM and ecosystem restoration projects that function together to reduce the risk of coastal storm surge damages to Texas's coastal communities and vitally important industries and to restore degraded coastal ecosystems."[196]

The final feasibility study for the Coastal Texas Program was published by USACE in 2021. The final plan involves 15 distinct projects at an estimated cost of around $34 billion. In general, the measures are grouped into three groups: the Galveston Bay Storm Surge Barrier CSRM System (which includes, among other structural and non-structural measures, a storm surge barrier gates between Galveston Island and the Bolivar Peninsula); the South Padre Island Beach Nourishment CSRM Project; and the Coastwide Ecosystem Restoration Plan.[197] According to the GLO, the ecosystem restoration components include "constructing breakwaters, oyster reefs, beach and dune renourishment, rookery islands, and marsh habitat."[198] While specific proposed CSRM features

[191] Id.
[192] Id. at 4.
[193] Id.
[194] GLO, 2023 TEXAS RESILIENCY MASTER PLAN, *supra*, at iii.
[195] Galveston District, USACE and GLO, COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY FINAL REPORT (AUG. 2021), available at: https://www.swg.usace.army.mil/Portals/26/Coastal%20TX%20Protection%20and%20Restoration%20FINAL%20Feasibility%20Report_20210827.pdf.
[196] GLO, 2023 TEXAS RESILIENCY MASTER PLAN, *supra*, at 7.
[197] Id.
[198] Id.

will require additional study prior to implementation, in December 2022, Congress authorized the construction activities identified in the study, pending appropriations.[199]

As with the TCRMP, a proposed measure's inclusion in the Texas Coastal Program plan does not guarantee that the project will be constructed. However, like the Master Plan, the study's data, modeling, impacts analysis, and/or list of anticipated project locations may be useful to OSW and transmission developers considering siting alternatives for new or repurposed coastal infrastructure in the coming decades.

National Estuarine Research Reserves

National Estuarine Research Reserves. The federal CZMA has given rise to additional tools that Texas has used to protect coastal lands. The National Estuarine Research Reserve (NERR) system was created to protect coastal estuaries to allow long-term research, water-quality monitoring, education, and coastal stewardship. NERRs are a state-federal partnership between NOAA, which provides funding and guidance for land acquisition and management, and state agencies or other entities, which manage the reserves.[200] An estuary is eligible for inclusion in the NERR system only if state law provides long-term protection for reserve resources to ensure a stable environment for research and the state complies with other NOAA regulations.[201] These regulations allow multiple uses to the extent permitted by the applicable management plan provided that any uses must be consistent with the mission and goals of the NERR system.[202]

In Texas, the Mission-Aransas NERR was established in 2006. It is located around 30 miles north of Corpus Christi and protects over 186,000 acres of coastal habitat including tidal flats, SAV beds, oyster reefs, and mangroves.[203] The lead state agency for managing the NERR is the University of Texas , on whose Marine Science Institute campus the reserve was established.[204] According to the reserve's website, MSI coordinates with the GLO, TPWD, the Texas Department of Transportation, U.S. Fish and Wildlife Service (USFWS), the Coastal Bend Bays & Estuary Program, NGOs, and others.

In the context of OSW development, lands acquired or protected through the NERR or Coastal and Estuarine Land Conservation programs may not be available or may require special attention, such as consulting the terms of a specific management plan or conservation easement, before they can be used for offshore energy transmission projects.

[199] Id.
[200] Funding for land acquisition in the NERR system and other coastal areas is provided in part by the Coastal and Estuarine Land Conservation Program (CELCP), created by CZMA revision in 2002. 16 U.S.C. § 1456d. CELCP is a competitive grant program that requires states to develop a coastal and estuarine land conservation plan and a process for identifying, ranking, and nominating qualified projects. A Texas interagency steering committee developed and published in 2010 the Texas Coastal and Estuarine Land Conservation Program Plan. The plan describes (and maps) the geographic extent of coastal and estuarine areas within the state; describes the types of lands and associated values to be protected through the program and the need for conservation through acquisition; and identifies the state's priorities for conservation. The plan can be accessed at https://coast.noaa.gov/data/czm/landconservation/media/celcpplantxfinal.pdf.
[201] 16 U.S.C. § 1461.
[202] 15 C.F.R. 921.1.
[203] NOAA-OCM, National Estuarine Research Reserves: Mission Aransas National Estuarine Research Reserve, https://coast.noaa.gov/nerrs/reserves/mission-aransas.html (updated Aug. 8, 2023).
[204] Mission Aransas National Estuarine Research Reserve, About, https://missionaransas.org/about (accessed Aug. 2023).

Box M: Texas A&M's Institute for a Disaster Resilient Texas

Established upon legislative directive by the Texas A&M board of regents in 2020, the purpose of the Institute for a Disaster Resilient Texas is to provide "foundational data and tools" necessary to support improved coastal resiliency. The web-based tools maintained by the Institute include the **Bay Atlas**, which was developed under the Center for Texas Beaches and Shores program and displays detailed data within Galveston Bay (and in three surrounding counties). According to the Institute,

> The Bay Atlas is a detailed and comprehensive web-based program providing information for anyone wanting to know more about the Galveston Bay. The Bay Atlas provides detailed data within the Galveston Bay and the surrounding counties of Chambers, Galveston, and Harris. New datasets offered in this map set include Digital elevation models, Land Change, Land Cover, Impervious Surface, and Population Density.

Source: Institute for a Disaster Resilient Texas, Interactive Web Tools, https://idrt.tamug.edu/web-tools/ (accessed Aug. 2023).

PUBLIC LANDS AND WATER BOTTOMS

Unlike oil and gas leases and offshore geothermal leases, the Texas legislature has not created a specific leasing regime for wind energy research and production on public lands and water bottoms. Thus, there is no definitive blueprint for future offshore wind leases in state waters, and there are some open questions about the specific authorities and leasing procedures that will/may be relevant to leases for offshore wind development on the state's submerged lands.

This section discusses a suite of state authorities, one or more of which may—or may not—apply to a proposed OSW development project depending on legislative and/or state agency decisions about which lease types are appropriate for particular project elements.

Overview of State Trust Land Management in Texas

The State of Texas has broad authority to lease state trust lands for numerous purposes, including renewable energy projects. However, almost all of the many onshore wind farms in Texas have been developed on private lands, and a series of leases for wind energy development on state submerged lands in the Gulf of Mexico in the early 2000s did not result in construction of any wind turbines (See Box N).

Management of Permanent School Fund Lands

The State of Texas can lease state Permanent School Fund (PSF) lands, i.e., state-owned trust lands appropriated from the public domain to finance public schools in Texas, under the Texas Constitution.[205] **The state's PSF lands include the submerged lands under the Gulf of Mexico between the coastline and the state's three-marine-league Gulfward boundary**. [206]

> The GLO uses a Joint Permit Application Form (JPAF) that includes: (1) an application to GLO for the authorized use of state-owned submerged land; and (2) an application for a USACE dredge and fill permit.

Texas's PSF lands are subject to the exclusive management and control of the Land Commissioner (acting through the GLO) and the School Land Board (SLB).[207] The Land Commissioner is vested with broad authority to lease and sell PSF land, subject to the authority of the SLB over certain lease types[208] and some specific statutory restrictions.[209] (Similarly, the University of Texas system is authorized to lease Permanent University Fund lands, totaling nearly 2.5 million acres across the state.[210] The process for leasing PUF lands is not detailed in this report.)

[205] See GLO, Land Management: Overview, https://www.glo.texas.gov/land/land-management/overview/index.html (accessed Aug. 2023).
[206] Aldon S. Lang and Berte R. Haigh, "Land Appropriations for Education" entry in HANDBOOK OF TEXAS, Texas State Historical Association (updated Aug. 7, 2020), available at https://www.tshaonline.org/handbook/entries/land-appropriations-for-education.
[207] Tex Nat. Res. § 51.011.
[208] See Tex. Nat. Res. §§ 51.012, 51.121.
[209] E.g., PSF land within 2,500 ft. of a military base may not be sold/leased and an easement may not be granted unless it is determined that the grant will not adversely affect the mission of the military base. Id. at § 51.011.
[210] Lang and Haigh, *supra*.

Pursuant to the Texas Natural Resources Code, unsold public-school land "may be leased for any purpose the commissioner determines is in the best interest of the state under terms and conditions set by the conditioner." With respect to improvements on leased land, those generally do not become property of the state and are "taxed in the same manner as other private property."[211] In some cases, permanent improvements ("fixtures") on leased land may be eligible for GLO funding or a credit to the lessee against the rent for part or all of the cost of making permanent improvements.[212]

Box N: History of State Land Wind Leases in Texas

While most onshore wind turbines in Texas have been developed on private lands, at least one commercial wind farm was developed (partially) on state land: in the mid-1990s, the GLO leased trust land for the Texas Wind Power Project, which was located on a combination of private land and state PSF land in Culberson County. The GLO leased the land under a 25-year lease to the Lower Colorado River Authority, which paid a royalty based on electricity production. The 35 MW project began operations in 1995.

In the 2000s, the GLO entered into multiple leases for offshore wind activities on submerged lands in the Gulf of Mexico, but none of those leases resulted in construction of wind turbines. In late 2005, Galveston-Offshore Wind, LLC, a division of a Louisiana-based company called Wind Energy Systems Technologies (W.E.S.T.), was granted a lease in the Gulf of Mexico for the construction of two "meteorological towers" to "gather data to determine exactly where [a] 150 MW wind energy development will be built on an 11,355-acre lease about seven miles off the coast of Galveston Island." The meteorological towers were built, but no turbines were ever constructed, and the project is currently described as "inactive"; according to a 2019 report on *Choose Energy*, the Galveston project (later assigned to a company called Coastal Point) "experienced problems with the expenses associated with building an offshore wind farm" and the dominance of land-based wind farms in the Texas energy market. Another set of submerged land wind energy leases, last held by the developer Baryonyx, were associated with a project that was cancelled in 2014. **While these prior leases for wind energy on submerged lands did not result in actual wind energy production, the form and contents of past lease agreement documents may be helpful for anticipating the form and contents of potential future agreements.**

Source: ELI, SITING WIND FACILITIES ON STATE-OWNED LANDS AND WATERS (2011), *available at*: https://www.eli.org/sites/default/files/eli-pubs/d21_01.pdf.; TCMP 309 ASSESSMENT 2021-2025, *supra*, at 72; WIND POWER LEASE FOR RESEARCH, ANALYSIS, AND POTENTIAL PRODUCTION OF WIND-GENERATED ELECTRICITY, WL-000002, Agreement between State of Texas and Galveston-Offshore Wind, L.L.C. (Sept. 19, 2005) (on file with ELI); Caitlin Ritchie, "Texas Offshore Wind Projects Not in Immediate Future," *Choose Energy* (Nov. 5, 2019), https://www.chooseenergy.com/news/article/texas-offshore-wind-projects-not-in-immediate-future/; KERA News Archive, "Texas to build first offshore wind-energy project in the country," *KERA News* (Oct. 24, 2005), https://www.keranews.org/archive/2005-10-24/texas-to-build-first-offshore-wind-energy-project-in-the-country.

Role of the School Land Board

The SLB is one of several boards and commissions that are "administratively attached" to the GLO.[213] The SLB is a five-member board made up of the Land Commissioner, who is the chair, and four appointed citizen

[211] Tex. Nat. Res. § 51.121.
[212] 31 TAC 13.3.
[213] Texas Archival Resources Online, Texas School Land Board Dockets, Minutes, and Exhibits: An Inventory of School Land Board Dockets, Minutes, and Exhibits at the Texas State Archives, 1932-2012 – Collection Details (accessed Aug. 2023), https://txarchives.org/tslac/finding_aids/30171.xml. Other boards and commissions within GLO include but are not limited to the CCAC, the Veterans Land Board, the Board for Lease: TPWD, and the Board for Lease: University Lands.

members.[214] The SLB has a role in OSW development because it is legally responsible for issuing leases and easements for uses of state-owned submerged lands.**[215] In some situations, the GLO assists and/or "acts on behalf of" the SLB, including in the administration and implementation of laws authorizing coastal leases**.[216]

Leases for Construction of Wind Energy Facilities on State Lands

According to the GLO, the State of Texas "engages in land leases to support the development of solar, wind, and geothermal power plants."[217] It is clear that the GLO has authority to lease state-owned lands for wind energy projects, but in the absence of express authorities and procedures specifically applicable to state wind energy leases, there is some ambiguity about which lease types (and related leasing procedures) are likely to apply to OSW production, transmission, and/or support facilities in state waters.[218]

Given this ambiguity, there are open questions about which state entity approves state leases for offshore wind (GLO vs. SLB), whether leases are awarded through public bidding or direct negotiation, and other aspects of the leasing process. Where possible, this section draws on agency forms and guidance, examples of past leases—in particular, a sample lease issued by Texas to Galveston-Offshore Wind in 2005, identified as WL-000002 (see green text boxes) [219]—and other publicly available information to make suggestions and/or predictions about the process for issuing and contents of future OSW-related leases.

However, additional clarification from the state on how one or more of the state's different public lands leasing authorities will apply in the context of OSW generation, transmission (both subsea and in upland areas), and supporting infrastructure might prove beneficial for OSW project planning and stakeholder engagement.

The types of state authorities discussed in this section are:

- Leases of PSF land for "any purpose the commissioner determines is in the best interest of the state" (Tex. Nat. Res. § 51.011);
- Leases of, or other interests in, public coastal land for public purposes or to any person, if the SLB determines that the grant is in the best interest of the state (Tex. Nat. Res. § 33.103);
- Leases of "state land other than land owned by The University of Texas System" for electric substations, pumping stations, loading racks, and tank farms, or for "any other purpose the commissioner determines to be in the best interest of the state" (Tex. Nat. Res. § 51.292); and
- Easements (or other right-of-way interests) across, through, and under PSF land, the portion of the Gulf of Mexico within the jurisdiction of the state, the state-owned riverbeds and beds of navigable streams in the public domain, and all islands, saltwater lakes, bays, inlets, marshes, and reefs owned by the state within tidewater limits for electric transmission and power lines (Tex. Nat. Res. § 51.291).

[214] GLO, School Land Board: Overview, https://www.glo.texas.gov/the-glo/boards-commissions/school-land-board/index.html (accessed Aug. 2023).
[215] Id. The SLB's other responsibilities include approval of PSF land sales, trades, exchanges, and purchases.
[216] See Tex. Nat. Res. §§ 33.011-.12.
[217] GLO, Renewables: Renewable Energy Leasing, https://www.glo.texas.gov/energy-business/renewables/index.html (accessed Aug. 2023).
[218] There is one provision in the Texas Administrative Code that contemplates leases of unsold PSF land for power generation through the use of renewable energy sources, e.g. wind. Tex. Nat. Res. § 51.121. It does not address siting or lease issuance; it establishes the rights of the lessee to sell generated electricity.
[219] WIND POWER LEASE FOR RESEARCH, ANALYSIS, AND POTENTIAL PRODUCTION OF WIND-GENERATED ELECTRICITY, WL-000002, Agreement between State of Texas and Galveston-Offshore Wind, L.L.C. (Sept. 19, 2005) (on file with ELI).

Leases of PSF Lands by the GLO

The State of Texas has authority to lease the state's trust lands for numerous purposes, including wind energy production. The GLO can lease available PSF lands, also referred to as "public school lands," for "any purpose the commissioner determines is in the best interest of the state."[220]

Application Process. The laws and policies authorizing leases of PSF lands prescribe few requirements related to the application process. State regulations codifying GLO's Rules, Practice and Procedure for Leases and Land Trades (31 TAC Ch. 13, Subch. A) merely establish filing fees. According to GLO's Leasing and Easement Guidelines, a guidance document last updated in 2010, "applicants are advised to discuss their project plans with the appropriate Land Office field office before submitting a formal application" to the GLO headquarters in Austin, which issues "coastal leases, miscellaneous easements, surface leases and commercial leases. Additional information that may be required includes survey plats, habitat surveys, mitigation plans, proof of insurance and engineering drawings."[221]

As of June 2023, the application forms available on GLO's Forms webpage include one entitled "Application for State Land Use Lease: Surface Lease (SL) – Coastal" (hereinafter "SL-Coastal Application Form").[222] This form helps shed light on potential application requirements for a state wind lease. (The form's fee table indicates that it can be used for proposed "electric substations," among other industrial examples.)

The WL-000002 sample lease was a phased lease. The initial phase involved research and analysis to study the production potential of the lease area's wind resources, making it unlikely that the lessee submitted a detailed project plan at the time of application. The introductory (Recitals) section stated that the lessee had "submitted a preliminary research & analysis plan, which must be finalized and approved by the Lessor prior to any activities, that outlines proposed research studies of the production potential of the Wind Resources."

The WL-000002 lease agreement required the lessee to submit a "Research Plan" supplementing the preliminary research and analysis plan to the lessor for review and approval, within 30 days of the effective date of the lease "and before initiating any physical activities on the leased premises." The Research Plan was required to include, at a minimum, "Plans outlining how Lessee will respond and/or prepare potentially require environmental studies, which include, but are not limited to, avian interaction and migration patterns in the Leased Premises" (para. 5.1).

The SL-Coastal Application Form requires applicants to provide: contact information; project location (including maps formatted as specified in the form) and amount of state land involved; anticipated start and completion dates; purpose of the proposed lease; a description of structure(s) and the materials to be used; description of facilities associated with the structure; method of installation, type of equipment to be used, and how it will be brought to the project site; indication of whether the project area includes marshes, submerged grasses, and/or oyster reefs; whether a habitat survey has been done; and a "detailed project plan," an aerial-view and cross-sectional drawing of all proposed and existing structures on state-owned lands at the project site.

According to the SL-Coastal form, the attached detailed project plan must contain (as applicable): the location of the shoreline (and the mean high and low water lines) and direction of tidal ebb and flow; location of state tract

[220] Tex. Nat. Res. § 51.011. The University of Texas system may lease Permanent University Fund lands.
[221] GLO, TEXAS GENERAL LAND OFFICE LEASING AND EASEMENT GUIDELINES (Feb. 2010), available at: https://www.glo.texas.gov/land/land-management/forms/_documents/leasing_easements/coastal/Leasing_Easement_Guidelines.pdf.
[222] GLO, STATE OF TEXAS GENERAL LAND OFFICE APPLICATION FOR STATE LAND USE LEASE: SURFACE LEASE (SL) – COASTAL (hereinafter "SL-Coastal Application Form"), available at: https://www.glo.texas.gov/land/land-management/forms/_documents/leasing_easements/coastal/commercial/App_Coastal_Surface_Lease_SL.pdf (accessed Aug. 2023).

Box O: Public Bid vs. Direct Negotiation

In Texas, offshore oil and gas leases for state-owned lands under the Gulf of Mexico are issued through a sealed bid process, pursuant to state law (Tex. Nat. Res. §§ 52.011 et seq.) Offshore geothermal leases also are executed through public bid pursuant to state law and regulations. However, in the absence of an explicit offshore wind leasing framework, **it is unclear whether offshore wind leases will be negotiated directly with lessees or will be awarded through a public auction.**

Media accounts from the 2000s—a period during which GLO granted several submerged land leases for wind power research and production, none of which advanced to construction (see Box N)—suggest that competitive bidding was used for some of those leases. For example, a 2003 story from Clarion Energy Media described how "[a]t the commissioner's direction, staff of the GLO's Energy Resources Division [were] mapping tracts of land, which [would] become available for lease nomination. The process will mirror the process by which the Land Office conducts lease sales for oil and gas production and exploration." According to that report, GLO staff developed maps of available tracts; assigned minimum values (i.e., minimum bid amounts) to the tracts based on criteria such as "wind classification" and "proximity to transmission lines"; and sought approval from the SLB to lease the tracts prior to publishing notices for bid.

The law that generally authorizes leases of PSF lands provides that such leases *may* be advertised in the same manner used by the SLB for oil and gases leases on state-owned lands; that law also provides that a lease of PSF land "shall be awarded to the highest responsible bidder" (Tex. Nat. Res. § 51.122).

Source: GLO, GLO Energy Business: Renewable Energy Leasing, https://www.glo.texas.gov/energy-business/renewables/index.html (accessed Aug. 2023); Clarion Energy Content Directors, "General land office 'wind rush' under way," POWERGRID INTERNATIONAL (Oct. 24, 2003), https://www.power-grid.com/renewable-energy/general-land-office-wind-rush-under-way/#gref

lines (on tidally influenced lands) or survey/property lines; location of any marshes, submerged grass flats, oyster reefs, mud or sand flats, or other sensitive natural/cultural resources known to exist in the project area; the dimensions of all existing and proposed structures in the project area (and official ID numbers for any existing GLO-authorized structures); and any applicable USACE permit number(s) covering the proposed work. The detailed project plan must also include an "explanation of construction methodology, techniques, and equipment that will be used at the site."[223]

Evaluation and Award Procedures. Pursuant to the Texas Natural Resource Code's subchapter on leasing of PSF lands (Chapter 51, Subchapter D), a lease of PSF land "shall be awarded to the highest responsible bidder" and "shall be awarded under the rules and in the quantities the commissioner considers to be in the best interest of the state and not inconsistent with the equities of the occupant."[224]

The GLO's regulations provide only slightly more detail on the procedure for evaluating applications for leases: after "study and investigation of the application for suitability of the purpose for the lease, surrounding ownership of the tract, access, water availability, improvements by any prior lessee, and management by any current lessee, the commissioner may award the lease to the highest responsible bidder."[225] The GLO's *Leasing and Easement Guidelines* (2010) add that after a "completed application form, fees and required attachments are received in the appropriate office at the Land Office," the next steps are GLO's review of the application for completeness; performance of an "onsite inspection of the project site"; and determination of fees and "special contract requirements." The law authorizing leases of PSF lands by GLO also provides generally that "any bid or offer to lease may be rejected by the commissioner for fraud, collusion, or other good and sufficient cause before the lease is signed."[226]

[223] GLO, SL-Coastal Application Form, *supra*.
[224] Tex. Nat. Res. § 51.124.
[225] 31 TAC 13.1.
[226] Tex. Nat. Res. § 51.125.

The general PSF leasing statute also provides that after applications are received, the Land Commissioner notifies the successful applicant in writing that their bid or offer to lease is accepted, and a lease is executed. [227] The GLO prepares "a descriptive memorandum of the lease" at the same time the lease is executed and delivers both documents to the lessee, who is responsible for having the memorandum recorded by the relevant county clerk.[228]

With respect to public participation, it appears to depend on the specific lease type and relevant statutory authority. If the proposed action requires the approval of the SLB under state law, the lease applicant will be notified of the date and time of a public meeting at which the proposal will be discussed (though the applicant is not required to attend). [229]

Lease Terms and Conditions. In general, PSF land "may be leased for any purpose the commissioner determines is in the best interest of the state *under terms and conditions set by the conditioner,*" and GLO's broad discretion is reflected in the *Leasing and Easement Guidelines* (2010) reference to the "determination of special contract requirements." One general rule from the law authorizing leases of PSF lands is that improvements on leased land do not become property of the state (and thus are taxed in the same manner as other private property). [230]

The GLO's rules, practice, and procedures for land leases explain that "[i]n the interest of sound land management practices, lessee may be required to implement a soil and water conservation plan."[231] Where required in connection with a surface lease, this "natural resources plan" is developed between the GLO and the lessee after entering the lease[232] and may include USDA, NRCS, and/or "other entities approved by" the GLO. The preliminary plan is submitted to the appropriate GLO field office, which forwards it to GLO's Austin headquarters for approval or rejection. If the plan (or any part) is not approved, the lessee is notified in writing stating the specific reason and must submit a modified plan within four weeks. After a plan has been approved, the lessee must comply with all timelines and schedules set out in the plan document.[233]

[227] Id. at § 51.126.
[228] Id. at. § 51.127.
[229] GLO, TEXAS GENERAL LAND OFFICE LEASING AND EASEMENT GUIDELINES (Feb. 2010), *supra*. State law requires that the SLB "develop and implement policies that will provide the public with a reasonable opportunity" to provide comment on "any issue under the jurisdiction of the board…" Tex. Nat. Res. § 32.026.
[230] Tex. Nat. Res. § 51.121.
[231] 31 TAC 13.1.
[232] Failure to timely submit the soil and water conservation plan—i.e., within six months of entering the lease agreement—subjects the lease to forfeiture. Id.
[233] 31 TAC 13.1.

Among other terms and conditions, the WL000002 sample lease included the following provisions:

- The GLO reserved full use of the leased area and "all rights with respect to its surface and subsurface for any and all purposes except for those granted to the Lessee and to the extent that such use and or rights do not materially interfere with Lessee's operations." The rights explicitly reserved by the GLO included the right for GLO and other lessees to conduct activities related to mineral exploration/production insofar as minerals may be located under the surface boundaries of the lease area (para. 2.3).

- Except for activities expressly provided in the lease (e.g., construction of meteorological towers during phase I), the lease required the premises "to remain in their current topographical and hydrologic condition during the term of the lease" (para. 7.4).

- The lessee was required to "use the highest degree of care and all appropriate safeguards to: i) Prevent pollution of air, ground, and water in and around the Premises, and ii) To protect and preserve natural resources and wildlife habitat," including by use of appropriate containment facilities. In the event of "an incident that may result in pollution," the lessee was required to immediately notify the GLO, to "use all means reasonably available to recapture any pollutants that have escaped or may escape, and [to] mitigate for any and all natural resources damages caused…." The lease also included an explicit requirement that no discharges of solid waste or garbage were allowed from construction or support vessels, platforms, crew or supply boat, barge, or other equipment on the premises (para. 7.5).

- The lease affirmed that the lessee must, at its own expense, comply withal federal, state, municipal, and other laws and rules applicable to the lease area, including "all applicable rules and regulations of the GLO and other governmental agencies responsible for the protection and preservation of public lands and waters" (para. 7.5).

Leases of "Coastal Public Lands"

> **Coastal public land** means all or any portion of state-owned submerged land, the water overlying that land, and all state-owned islands or portions of islands in the coastal area.
>
> *Tex. Nat. Res. § 33.004*

The Coastal Public Lands Management Act of 1973 (codified at Tex. Nat. Res. §§ 33.001 et seq.) declares that it is the policy of Texas to manage the surface estate in coastal public lands in a way that preserves their natural resources (including "natural aesthetic values of those areas and the value of the areas in their natural state for the protection and nurture of all types of marine life and wildlife"), prioritizes public uses, protects the public interest in intracoastal navigation, and generally is in the public interest.

To effectuate these policies, the law delegates to the SLB ("assisted by the appropriate staff of the land office") certain responsibilities with respect to the management of surface rights on coastal public land.[234] The statute authorizes the SLB to grant various property interests in coastal public land, including but not limited to "leases for public purposes" and "any other interest in coastal public land for any purpose if the board determines that the grant is in the best interest of the state."[235]

[234] Tex. Nat. Res. § 33.002

[235] Tex. Nat. Res. § 33.103. Alienation of coastal public lands is allowed only through leaseholds, lesser interests, or certain land exchanges. Id. at § 33.001.

Once a coastal lease is issued, additional permits and permissions from the GLO are not required; the lease or easement serves as an authorization for the "encumbrance" of state-owned submerged land.[236] The penalty for constructing or maintaining any structure or facility on state-owned land without acquiring a proper easement, lease, or other instrument from the state is liable for a civil penalty of at least $50 (and up to $1,000) for each day of the violation.[237]

Coastal leases granted by the SLB are subject to, and must be consistent with the goals and policies of, the TCMP. If provisions in the coastal public lands chapter "conflict with and cannot be harmonized with" provisions of the TCMP, the TCMP policies control.[238]

Application Process. The Coastal Public Lands Management Act generally requires any person wishing to acquire rights to use the surface of coastal public land to apply to the SLB "in writing in the form prescribed by the board," including "any information the board considers necessary to process the application, including information necessary to evaluate the purpose for which the land is to be used." [239] The implementing regulations adopted by SLB add that the application should include "the intended public purpose."[240] The regulations also note that if "shoreline alteration" is proposed as part of the use, a Coastal Boundary Survey is required (see Box P).[241]

Evaluation and Award Procedures. Neither the Coastal Public Lands Management Act nor its regulations provide much detail with respect to criteria for granting or denying a coastal public land lease. The SLB enjoys broad discretion under the statute, which authorizes the board to "grant to any person an interest in coastal public land if the board determines that the grant is in the best interest of the state." The SLB's regulations provide that in addition to the policies stated in the Coastal Public Lands Management Act (summarized above), it is SLB policy that "economic benefits of leases, easements, and other grants of interests in the surface estate of coastal public lands shall be weighed against the need to protect and preserve the resources of coastal public lands."[242] In the case of proposed projects requiring a USACE permit, the rules allow the SLB to postpone a decision on the application pending receipt of comments in response to the USACE public notice. [243]

As noted previously, when a proposed activity needs the approval of the SLB, the applicant will be notified of the date and time of a public meeting at which the proposal will be discussed (though the applicant is not required to attend).[244] This public meeting requirement presumably applies to coastal public land leases, which are the express responsibility of the SLB under state law; however, it is possible that the GLO's "assistance" in exercising this authority extends so far as to include granting individual coastal public land lease applications without the board's meeting/approval. For instance, according to the GLO's website, the GLO issues "commercial leases and easements" for "coastal projects that produce revenue from the private use of state-owned submerged land." The website lists examples of activities for which the GLO issues commercial leases. It is not clear whether leases for wind energy facilities would be considered "commercial" leases and easements—

[236] GLO, Coastal Management: Coastal Leasing and Easements, https://www.glo.texas.gov/coast/coastal-management/leasing-easements/index.html (accessed Aug. 2023); see also Tex. Nat. Res. § 51.302. The SLB does use instruments called "permits" to legitimize existing unauthorized structures on coastal land, but there is no "permit" available for new projects.
[237] Tex. Nat. Res. § 51.302.
[238] 31 Tex. Admin. Code § 155.1.
[239] Tex. Nat. Res. § 33.101.
[240] 31 TAC 155.2.
[241] 31 TAC 155.1.
[242] 31 TAC 155.1.
[243] 31 TAC 155.1.
[244] GLO, TEXAS GENERAL LAND OFFICE LEASING AND EASEMENT GUIDELINES (Feb. 2010), *supra.*

and if so, whether or how that designation would change the procedures and requirements related to the lease.

Coastal Lease Terms and Conditions. The SLB's regulations set out general conditions for leases of coastal public lands. The lessee must pay any fees determined by the board as adequate compensation for the use of coastal public land (both application fees and annual rent are negotiable[245]), and the lessee must be subject to "all policies, provisions, terms and conditions applying to leased coastal public land by statute or administrative rule" and "any additional policies, provisions, and conditions adopted by the board for the benefit of the public."[246] Beyond that, the law directs the SLB to determine the terms, conditions, and consideration (price) when approving an application for a right to use coastal public land.[247]

Box P: Coastal Boundary Surveys

In situations where the construction and/or maintenance of OSW transmission or onshore support infrastructure necessitate related erosion control measures, a Coastal Boundary Survey may be required.

Pursuant to Texas law, no one may undertake an erosion response-related action on or immediately landward of a public beach or submerged land before the person has conducted and filed a Coastal Boundary Survey *if the proposed action will cause or contribute to shoreline alteration*. The statute defines erosion response as any action intended to address or mitigate the effects of coastal erosion or maintain/enhance beach stability or width, including beach nourishment, dune creation or enhancement, sediment management, beneficial use of dredged material, construction of a breakwater, or revegetation.

According to the Natural Resources Code and GLO regulations, all coastal boundary surveys must be conducted by (or under supervision of) a licensed land surveyor the relevant county surveyor. Before conducting a survey, the surveyor must consult with GLO's Surveying Division regarding "the appropriate surveying method to be used to determine the littoral boundary" (and submit to the GLO "relevant facts regarding the elevation of mean high water, mean higher high water, and/or other information that may be necessary"). On the plat, a surveyor certifies the location of the littoral boundary, identifies retaining walls or other structural modifications on or along the boundary, and where fill or buildup exists locates both the natural/original littoral boundary and the boundary of the fill/buildup. The survey plat must also briefly describe the nature of the erosion response activity. The survey also must reference a GLO file number for a GLO lease (or other instrument) authorizing the placement of a structure on coastal land; a project number of an erosion response project undertaken by the GLO pursuant to Texas Natural Resources Code 33.603; or a file number for a dune protection permit or beachfront construction certificate.

A preliminary version of the survey is submitted to the GLO's Surveying Division for review and approval before the survey report is finalized. The GLO informs the surveyor of the approval, and public notice of approval is published in the Texas Register and the local newspaper. Once approved, a final, sealed survey plat is filed.

Sources: Tex. Nat. Res. § 33.136; 31 TAC 7.2.

[245] 31 TAC 155.15.
[246] 31 TAC 155.2.
[247] Tex. Nat. Res. § 33.104.

Leases for "Certain Facilities" on State Lands.

The GLO and SLB leasing authorities described previously in this section apply to PSF lands. A distinct provision of the Natural Resources Code, Section 51.292, authorizes the Land Commissioner to execute grants of easements or leases for "certain facilities." These are defined to include "electric substations, electric substations, pumping stations, loading racks, and tank farms, and *for any other purpose the commissioner determines to be in the best interest of the state,* to be located on *state land* other than land owned by The University of Texas System."

The distinction between this provision and those previously described appears to be that this authority to lease land for "certain facilities" applies not only on PSF lands, but on state lands "under the authority of another state agency on whose behalf the [GLO] will issue a land-use agreement."[248]

Right-of-Way Easements on State Lands

In Texas, easements may be granted on both submerged lands and state-owned uplands for projects requiring a right-of-way over state-owned lands. The Texas Natural Resources Code authorizes the Land Commissioner to grant easements for rights-of-way or access "across, through, and under unsold public school land, the portion of the Gulf of Mexico within the jurisdiction of the state, the state-owned riverbeds of navigable streams in the public domain, and all islands, saltwater lakes, bays, inlets, marshes, and reefs owned by the state within tidewater limits" for a range of purposes.[249] According to the GLO, "Easement contracts cover activities such as oil and gas pipelines, subsurface easements, water lines, power lines, communication lines, roads, and certain other structures and uses."[250]

Application Process. The GLO has published a standard application form to request a right-of-way across state-owned land, entitled Application for Miscellaneous Easement/Right of Way.[251] According to the GLO, the agency's goal is to provide the applicant with an executed contract within 90 days of GLO's determination that it has received a complete application. Applicants are urged to avoid processing delays by filing the application with GLO concurrently with any necessary USACE permit application.[252]

Information that applicants must provide when requesting a right-of-way easement includes applicant's contact information, type of business and state of incorporation, and the anticipated start date and expected completion date. The application must provide the location of the proposed right-of-way line, including, as applicable: counties, waterbodies, and state tract numbers (for tidally influenced projects), identification of river(s) and/or navigable stream(s) crossed by the proposed right-of-way line; survey names and section numbers (for state-owned uplands). If a right-of-way route will cross a state-owned tract held by a state mineral lease or covered by a pooling agreement, it must be indicated on the application. **For applications for transmission lines, the applicant must provide the company name, the kV rating, a description of the above ground installation or depth and diameter of below-ground installation, the easement length of the line on state land (in rods, where 1 rod equals 16.5 feet), and the ROW width in feet**.[253]

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[248] Tex. Nat. Res. § 51.296. The term of leases (or easements) granted under Section 51.292 may be for any term the TLC deems to be in the best interest of the state. Id.
[249] Tex. Nat. Res. § 51.291.
[250] GLO, Coastal Management: Coastal Leasing and Easements, *supra*.
[251] GLO, STATE OF TEXAS GENERAL LAND OFFICE APPLICATION FOR STATE LAND USE LEASE: MISCELLANEOUS EASEMENT/RIGHT-OF-WAY (FY 2023), available at: https://www.glo.texas.gov/land/land-management/forms/_documents/App_Misc_Easement_ROW.pdf.
[252] Id.
[253] GLO, STATE OF TEXAS GENERAL LAND OFFICE APPLICATION FOR STATE LAND USE LEASE: MISCELLANEOUS EASEMENT/RIGHT-OF-WAY (FY 2023), *supra*.

Evaluation and Grant Process. State regulations authorize the Land Commissioner to "grant easements for any purpose, under any terms, and for any term that the commissioner deems to be in the best interest of the state," subject to compliance with "all existing rules and with all existing and future rules or orders which the commissioner determines to be necessary and proper in order to provide for the protection and conservation of the natural resources of public lands and waters…" Once approved by the state, easements must be recorded in the county clerk's office of the county where the land is located, with the recording fee paid by the easement holder, and a certified copy must be provided to the GLO.[254]

Terms and Conditions. State law provides that electric transmission and powerline easements "shall be executed on terms to be determined by the [land] commissioner."[255] GLO regulations provide that by accepting an easement, an applicant consents to be bound by terms and conditions enumerated in the rule (unless one or more is waived by the Land Commissioner in a certain case). Among other things, the default terms for easements on submerged land include a condition that where the easement is for transmission line construction purposes, the applicant agrees to:

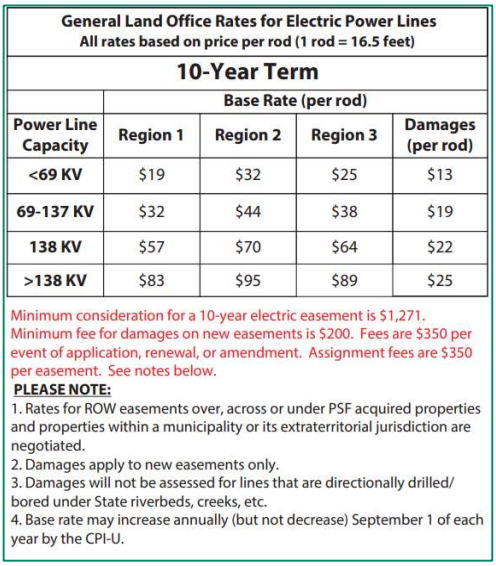
> (1) to bury all telephone cables unless use of existing single pole, H-frame, or steel tower construction or other existing structure such as a bridge or causeway is made;
> (2) to encourage the joint use of electric transmission facilities and rights-of-way by two or more utilities, when feasible, to reduce the total number of transmission lines constructed and rights-of-way used across public lands;
> (3) to utilize, when feasible, existing rights-of-way, bridges, and causeways as an alternative to new construction of single pole, H-frame, or steel tower lines across open expanses of water, wetlands, and bays;
> (4) to strategically locate steel towers, H-frame, and single pole construction for minimum visibility and to bury lines crossing rivers within the constraints imposed by the current state of high voltage transmission technology. (31 Tex. Admin. Code § 13.12.)

Regarding the cost of easement fees and rents, state law requires that for easements on PSF land, the Land Commissioner must "by rule…set the amount of and shall collect money for damages to the surface of land dedicated to the permanent school fund."[256]

The rates for a ROW easement are based on the ROW's location on the state's Miscellaneous Easement Regions Map. Region 1 encompasses all submerged lands in the Gulf of Mexico. Region 2 includes the coastal zone. Region 3 is made up of the rest of the state (all counties inland from the coastal zone boundary line). The Fiscal Year 2023 default rates are shown in Figure X, excerpted from the ROW application form.[257] For "special areas"—i.e., PSF lands and properties within a municipality or its extraterritorial jurisdiction—the base rates are negotiated based on the appraised value of the property.[258]

[254] Tex. Nat. Res. § 51.297.
[255] Id. at § 51.295.
[256] Id. at §51.296.
[257] GLO, STATE OF TEXAS GENERAL LAND OFFICE APPLICATION FOR STATE LAND USE LEASE: MISCELLANEOUS EASEMENT/RIGHT-OF-WAY (FY 2023), *supra*.
[258] See 31 TAC 13.17(e).

Figure 5: ROW Easement Rates for Power Lines (Source: GLO Misc. Easement/ROW Application)



General Land Office Rates for Electric Power Lines
All rates based on price per rod (1 rod = 16.5 feet)

10-Year Term

	Base Rate (per rod)			
Power Line Capacity	**Region 1**	**Region 2**	**Region 3**	**Damages (per rod)**
<69 KV	$19	$32	$25	$13
69-137 KV	$32	$44	$38	$19
138 KV	$57	$70	$64	$22
>138 KV	$83	$95	$89	$25

Minimum consideration for a 10-year electric easement is $1,271. Minimum fee for damages on new easements is $200. Fees are $350 per event of application, renewal, or amendment. Assignment fees are $350 per easement. See notes below.

PLEASE NOTE:

1. Rates for ROW easements over, across or under PSF acquired properties and properties within a municipality or its extraterritorial jurisdiction are negotiated.
2. Damages apply to new easements only.
3. Damages will not be assessed for lines that are directionally drilled/ bored under State riverbeds, creeks, etc.
4. Base rate may increase annually (but not decrease) September 1 of each year by the CPI-U.

Notably, the Natural Resources Code section governing miscellaneous and "certain facility" easements explicitly provides that the Land Commissioner "may waive or reduce an easement fee if the easement granted is to improve the infrastructure of the land, including production and transportation of alternative or renewable energy resources."[259]

Coastal Public Land Easements

In addition to coastal public land leases, the Coastal Public Lands Management Act authorizes the SLB to grant various other property interests in coastal public land. These include specifically "channel easements" associated with mineral or surface leases, as well as "any other interest in coastal public land for any purpose if the board determines that the grant is in the best interest of the state."[260] Presumably, such "other interests" could include power line right-of-way easements and other non-channel easement types found to be in the best interest of the state.

Application Process. No details are provided in the SLB's rules about the coastal easement application form or contents. A GLO instruction sheet published on the agency's Easements website alongside the Miscellaneous Easement/Right of Way application, *Instructions for Preparing Exhibits For The Following General Land Office Applications: Miscellaneous Easements (Rights-of-Way)—Sub-Surface Easements*, includes specific instructions about surveys and maps to be submitted with applications for "[p]rojects located on Tidally Influenced State-owned lands (Including the Gulf of Mexico, bay tracts, and the tidally influenced portions of rivers, creeks, streams, and bayous)." This may indicate that the same application form is used for coastal easement applications requiring SLB approval; it is also possible that this form is used for small residential projects that are reviewable by GLO without board approval, while a separate application form/format is required for submissions to the SLB.

[259] Tex. Nat. Res. § 51.2995. Unlike various other provisions related to renewable energy, the state legislature did not repeal or amend this section during the 2023 session.
[260] Tex. Nat. Res. § 33.103. Alienation of coastal public lands is allowed only through leaseholds, lesser interests, or certain land exchanges. Id. at § 33.001.

Evaluation and Grant Process. Compared to coastal surface leases, the SLB's regulation establishing the process for considering and granting easements on coastal public lands is robust and detailed. Pursuant to the rule, all easements related to commercial/industrial activities require approval by the SLB following a board meeting to "evaluate, consider, and hear testimony on" an easement application. Upon receipt of "all necessary application information," the SLB may issue, deny, or issue with qualifications the easement contract.

In general, to be approved by the SLB, an easement must satisfy all applicable criteria set out in the regulation (some of which apply to all applications, and some of which apply only to specific project types), though the board may waive a rule and/or prescribe additional terms and conditions at its discretion.

The criteria for the board's decision—many of which reflect TCMP policies—include, but are not limited to:

- A project will not be approved if it is "determined by the board or the commissioner as unsafe or contrary to the established policies of the board and/or the GLO…."
- Adverse impacts to CNRAs "must be avoided to the extent practicable and minimized where unavoidable." Applicants may be required to provide appropriate mitigation for unavoidable impacts, with mitigation of impacts to coastal public lands taking place on coastal public lands. (In situations where unavoidable impacts are minimal and physical mitigation is impracticable, the applicant may be required to pay a "resource impact fee" instead). The mitigation measure hierarchy "avoid, minimize, mitigate and compensate" must be followed, including an explicit requirement that projects be designed to avoid impacts on "critical areas" (e.g., oyster reef, coastal wetlands, SAV) to the extent practicable.
- Placement of fill material in marshes or submerged grass bed areas "normally will be denied," though "[c]onsideration will be given to a fill proposal for a water dependent use or public use on relatively unproductive coastal public lands."
- Dredging projects must "be limited to the minimum size necessary to serve the project purpose." Propwashing is considered an "unacceptable" method of dredging and will not be approved.
- Wherever practical, extension of piers into deeper water is "preferred" to the dredging of access channels or basins. Any piers and docks will "be limited to the minimum size necessary to serve the purpose of the project and will be constructed in a manner that does not interfere with navigation or other authorized uses. [These] facilities will be designed and constructed in a manner that avoids existing marshes, oyster reefs, seagrass vegetation or shallow water capable of supporting these habitats to the extent practicable," and unavoidable impacts to "sensitive habitat" will be minimized to the extent practicable.[261]

Terms and Conditions. If a coastal public lands easement is granted, it is approved subject to these and other criteria and rules in the regulation (though the board may waive a rule and/or add conditions to the easement contract at its discretion), including a rule that GLO may inspect any structure on coastal public land. An applicant, by accepting an easement to occupy or otherwise place a structure on coastal public lands or water surface areas, agrees to comply with the conditions of the easement contract. In general, an easement contract will be for a specific purpose, and any subsequent changes require an amendment application.[262]

[261] 31 TAC 155.3.
[262] Id.

Local Management of Submerged Lands

In addition to the GLO and the SLB, other entities that manage coastal and submerged lands include municipalities, navigation districts, and port authorities.[263]

Municipalities. Under Texas's Local Government Code, municipalities that own coastal islands, flats, or submerged lands are empowered to sell or lease the areas and "make development plans and contracts" for such purposes on "terms that the governing body determines are proper and in the public interest…"[264] The full extent of municipal land use authority under state law is beyond the scope of this report, but additional identification and analysis of nuanced issues related to local governmental authorities may be helpful if transmission or other OSW-related facilities are to be sited within municipal boundaries.[265]

Navigation Districts. The Texas Constitution authorizes the creation of "districts" for various purposes related to natural resource management, including navigation. The Texas Water Code governs the establishment, powers, and duties of navigation districts created under that constitutional provision.[266] Since the establishment of the first navigation district in 1909, more than 20 navigation districts have been established throughout the state.[267]

Navigation districts—which are considered political subdivisions of the state— have authority to levy taxes and exercise eminent domain, among other powers. When a district owns, operates, and maintains terminal facilities (e.g., wharves, docks, piers, sheds, and warehouses) that are not located inside the boundaries of any incorporated city, town, or village, the district can enact ordinances and regulations to "protect the property" and "promote the health, safety, and general welfare of persons using the property" consistent with state law.[268] However, if a district's exercise of its authorities (including eminent domain) requires relocating, rerouting, or otherwise altering existing utility infrastructure (e.g., transmission line, pipeline, pole, railroad), the district must pay for the cost of the alteration.[269]

A navigation district's powers include general authority to acquire land, lease land, and grant easements "to any person."[270] As a recent example, in December 2022, the Chambers-Liberty Counties Navigation District (CLCND) Board of Navigation and Canal Commissioners approved a new lease agreement with National Audubon

[263] GLO, Living Shorelines Guide, *supra*, at 42.
[264] Tex. Loc. Gov't § 253.002.
[265] Local government coalitions such as the Capital Area Council of Governments (CAPCOG) and the Texas Municipal League have published various resources about county, city, and town authorities under Texas law. See, e.g., CAPCOG, COUNTY LAND USE AUTHORITY IN TEXAS (2009), available at: https://www.capcog.org/wp-content/uploads/2009/11/2009-10-14-County-Land-Use-Report-final.pdf; Texas Municipal League, Directories and Publications, https://www.tml.org/178/Directories-and-Publications (accessed Aug. 2023).
[266] Tex. Const. Art. XVI, § 59; Tex. Water § 62.101. Navigation districts originally created pursuant to a 1925 Texas law have "the right to purchase from the State of Texas any lands and flats belonging to said State, covered or partly covered by waters of any of the bays or other arms of the sea, to be used by said District for the purposes authorized by law." Chambers-Liberty Ctys. Navigation Dist. v. State, 575 S.W.3d 339, 350–51 (Tex. 2019) (citing Tex. Rev. Civ. Stats. Ann. art. 8225 (1925)).
[267] Jim Kruse, Transportation Policy Research Ctr., Texas A&M Transportation Inst., OVERVIEW: TEXAS PORTS AND NAVIGATION DISTRICTS (n.d.), available at: https://policy.tti.tamu.edu/wp-content/uploads/2016/06/TTINavDistReport.pdf.
[268] Tex. Water § 60.071.
[269] Tex. Water § 60.102
[270] Tex. Water § 62.107.

Society, Inc.—which leases various tracts of land for its system of bird sanctuaries along the Texas coast[271]— on dredge disposal islands.[272]

However, the extent of a navigation district's leasing authority has been tested, and limited, by Texas courts. In 2019, the CLCND attempted to lease 23,000 acres of submerged land in and around Galveston Bay to an oyster production business. The land had been conveyed to the CLCND in the past by the GLO. The State of Texas sued both CLCND and the oyster company, "seeking to invalidate the lease under the theory that Texas law affords [TPWD], not the District, the sole power to decide who may and may not cultivate oysters in the disputed area."[273] The court observed that a navigation district's general authority to lease land is "not a license to enter into any lease imaginable," and that the district's leasing authority may only be exercised consistent with "its limited statutory purposes 'conferred by law.'"[274] The court determined that the extent of the district's leasing authority must "be considered in conjunction with the numerous other statutory provisions establishing the District's limited purpose: navigation" as well as "other sources of state law that limit or enlarge the District's legal authority"—i.e., the Parks and Wildlife Code provisions containing "an extensive and exclusive grant of authority to the Department to regulate the harvesting and cultivation of oysters." The court held that the navigation district had exceeded its authority by entering a lease that purported to grant a private business an exclusive right to produce oysters on submerged land beneath state waters, so the lease was invalid. [275] While it is difficult to predict the outcome of any future cases on a navigation district's leasing authority, it is clear that districts' leasing authority is not absolute. It is possible that leases of submerged lands owned and managed by navigation districts for OSW-related projects would be subject to legal challenges.

Port Authorities. The establishment of port authorities is authorized under the same section of the Texas Constitution (Sec. 52, Art. XVI, Sec. 59) that authorizes navigation districts, and many of the Water Code provisions governing navigation districts also apply to port authorities.[276] The Port of Galveston, where principal imports include wind power equipment,[277] has leased its property for industrial activities and granted easements for public works projects.[278]

[271] See Audubon Texas, Coastal Conservation, https://tx.audubon.org/conservation/coastal-conservation (accessed Aug. 2023); Rachel Guillory, Audubon Texas, "A Plan to Keep Texas's Rookeries Rooted in Place," COASTS, (Mar. 16, 2022), https://www.audubon.org/news/a-plan-keep-texass-rookeries-rooted-place.
[272] See Board of Navigation and Canal Commissioners of the Chambers-Liberty Counties Navigation District, MINUTES OF DEC. 13, 2022 (Jan. 2023), available at: http://www.clcnd.org/site/DefaultSite/filesystem/documents/Minutes/M20221213.pdf.
[273] Chambers-Liberty Ctys. Navigation Dist. v. State, 575 S.W.3d 339, 341 (Tex. 2019).
[274] Id (citing Tex. Const. art XVI, § 59(b).)
[275] Chambers-Liberty Ctys. Navigation Dist. v. State, 575 S.W.3d at 351-353.
[276] See Tex. Water § 60.402.
[277] Texas Ports Association, Port of Galveston, https://www.texasports.org/ports/galveston/ (accessed Aug. 2023).
[278] See, e.g., Brett B. Milutin, Port of Galveston Executive Deputy Port Director, REQUEST TO DISCUSS AND CONSIDER FOR APPROVAL A MEMORANDUM OF UNDERSTANDING BETWEEN THE BOARD OF TRUSTEES OF THE GALVESTON WHARVES AND SEAPATH MARITIME HOLDINGS LLC., FOR NINETY DAYS, WITH A TWO-YEAR LAND LEASE OPTION FOR THE EXPLORATION OF DEVELOPING A LIQUID NATURAL GAS LIQUIFICATION PLANT, STORAGE FACILITY AND BUNKERING TERMINAL ON PELICAN ISLAND (Apr. 24, 2023), available at: https://www.portofgalveston.com/AgendaCenter/ViewFile/Item/5307?fileID=11582. See, e.g., Rodger E. Rees, Port of Galveston Port Director CEO, REQUEST TO DISCUSS AND CONSIDER APPROVAL OF PIPELINE AND PUMP STATION EASEMENT AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT (City of Galveston 14th Street Pump Station Project) (Feb. 28, 2023), available at: https://www.portofgalveston.com/AgendaCenter/ViewFile/Item/5245?fileID=11233.

Other Policies that May Affect Siting on Public Lands and Water Bottoms

Oil and Gas Leases on State-Owned Lands

Texas law provides explicit authority to the School Lands Board (SLB) to lease PSF lands, Gulf of Mexico submerged lands, and lands within tidewater limits for the production of oil and natural gas.[279] Oil and gas are always leased together, and separately from other minerals.[280] According to the TCMP, oil production in Texas "has exploded" since 2015, with the state seeing "huge demand from oil companies to build export terminals and install thousands of miles of pipeline."[281]

To lease lands under the Gulf of Mexico, bays, and rivers, the SLB must hold a sealed bid sale.[282] The process begins with nomination. State oil and gas leasing rules provide that the SLB, GLO staff, or persons interested in leasing a tract may nominate a tract for lease.[283] The nominated tracts are "evaluated by GLO geologists," and the SLB "set[s] the terms and conditions upon which tracts will be offered for lease." The terms and sale date are advertised, and irrevocable bids are submitted by bidders; upon reviewing bids, either the "best bid meeting the minimum requirements set by the SLB" must be accepted by the board, or else all bids must be rejected.[284] After a bid is accepted, a lease is executed and becomes effective once a certified copy is filed with the GLO.[285]

"This expected growth in the oil export industry will put enormous stress on ocean resources."

-TCMP

Pursuant to the Natural Resources Code, the primary term for state oil and gas leases on PSF lands may not be longer than 10 years; once production begins, the lease term can be extended "for as long after that time as oil or gas is produced from the leased area."[286] Royalty rates must be set by the SLB at a minimum of one-eighth of the gross production or market value of the oil and/or gas produced.[287]

With regard to environmental protections, the Natural Resources Code provides that development and operations on leased areas "shall be done insofar as practicable in a manner that will prevent the pollution of water, destruction of fish, oysters, and other marine life, and obstruction of navigation." The Land Commissioner is directed to adopt and enforce rules as may be necessary to implement the provision.[288] The GLO also provides resource management codes (see Box R) to help guide development on state tracts.

[279] Tex. Nat. Res. § 52.011.
[280] Tex. Nat. Res. § 50.012.
[281] TCMP 309 ASSESSMENT 2021-2025, *supra*, at 64.
[282] See Tex. Nat. Res. §§ 52.014 et seq.; see also GLO Energy Business, Leasing: Sealed Bid Sales, https://www.glo.texas.gov/energy-business/oil-gas/mineral-leasing/leasing/index.html (accessed Aug. 2023).
[283] 31 TAC 9.22; id. at 151.2.
[284] 31 TAC 9.22.
[285] Tex. Nat. Res. § 52.183.
[286] Tex. Nat. Res. § 52.021.
[287] Tex. Nat. Res. § 52.022.
[288] Id. at § 52.032.

Box Q: GLO's Land and Lease Mapping Viewer

The GLO maintains a set of geographic information system (commonly known as "GIS") web tools to help the agency "compile, analyze, and distribute the most accurate geospatial data possible about the location of natural and cultural resources." These tools are also accessible to the public.

The Land/Lease Mapping Viewer, which can be launched from an ordinary internet browser, has many useful data layers relevant to OSW siting. The available layers include (but are not limited to): submerged tracts; pipelines; shipping fairways; oil and gas leases; oil and gas well locations; coastal surface leases and easements; renewable energy leases; restoration areas and living shoreline sites; navigation districts; state agency lands; and the coastal zone boundary.

Sources: GLO, Land Management: GIS Maps and Data, https://www.glo.texas.gov/land/land-management/gis/ (accessed Aug. 2023); GLO Land/Lease Mapping Viewer, https://gisweb.glo.texas.gov/glomapjs/index.html.

Geophysical and Geochemical Exploration Permits

A geophysical/geochemical exploration permit (GEP) from the GLO authorizes the permittee to conduct within "areas within tidewater limits" a survey or investigation to discover or locate oil and gas prospects using magnetic, gravity, seismic, electrical, and/or soil sample analysis techniques.[289] GEPs are issued subject to any lease or rights granted to a surface or mineral lessee on tracts to be explored.[290]

The GLO has adopted rules governing geophysical/geochemical exploration on PSF lands, which apply to GEP holders as well as to exploration activities under a state oil and gas lease (see previous section).[291] The rules are not intended to be construed to enlarge or restrict the rights of any owner of a state surface lease. [292] For areas within tidewater limits, the statute required GLO to "follow the recommendations of the Parks and Wildlife Department in making rules to prevent unnecessary pollution of water, destruction of fish, oysters, and other marine life, and obstruction of navigation."[293] The GLO's rules must also require permittees to restore land explored under the permit "as nearly as practicable to its condition immediately prior to the exploration." [294]

Permit applicants submit applications using forms provided by the GLO and must include maps and descriptions of proposed activities as well as any resource management code information available regarding the relevant tracts (see Box R). Complete applications must be received by the GLO at least four weeks (20 business days) before operations are proposed to start and must be approved before any operations including surveying begin. [295] Permits are issued at the discretion of the Land Commissioner. [296] Under the GLO rules, the commissioner's decision must be based upon a consideration of factors including (but not limited to): the date of application, the applicant's past record of compliance with applicable laws and permit conditions, the impact on natural resources, and "consideration of any comments on the permit application" made by TPWD, USFWS,

[289] Tex. Nat. Res. § 52.321. "Areas within tidewater limits" means islands, saltwater lakes, bays, inlets, marshes, and reefs within tidewater limits and that portion of the Gulf of Mexico within the jurisdiction of Texas. Id.
[290] 31 TAC 9.11.
[291] Tex. Nat. Res. § 52.322.
[292] 31 TAC 9.11.
[293] Tex. Nat. Res. § 52.324.
[294] Id.
[295] Tex. Nat. Res. § 52.324; 31 TAC 9.11.
[296] 31 TAC 9.11.

NMFS, USACE, the Texas Historic Commission, and "any other appropriate entities." Another factor considered is frequency of exploration in the proposed area; on bay tracts, the general rule is that geophysical exploration can occur only once every three years. [297] The GLO collects "reasonable fees" as a condition of issuing a permit, and upon request of the Land Commissioner the permittee must provide copies of maps, plats, reports, data, and "any other information in the possession of the permittee that relates to the progress or results of an exploration under a permit" (except interpretive data, and all information must be kept confidential unless a court orders otherwise). [298] Permits are granted for a minimum of three days and a maximum of 90 days (but can be extended in 30-day increments at the discretion of the GLO). [299]

The GLO's regulations establish a set of geophysical and geochemical operational guidelines, which apply to all such operations on state-owned lands (including under mineral leases). Among other things, these operational guidelines include provisions governing "pollution and other impacts to natural resources." [300] They affirm that all GEP exploration must be conducted in compliance with all applicable state and federal regulations relating to land and water pollution, and prior to conducting any operations, a permittee must "coordinate with the appropriate regulatory agencies regarding any operations that could potentially impact state or federally protected species."[301] As a general rule, no geophysical surveying or shooting can be performed within 1,000 feet of a known bird rookery island between February 15th and September 1st. [302] To protect fishing, navigation, and other users' interests, the rule contains restrictions on exploration methods used within 500 feet of any oyster reef, marked oyster lease, marked red snapper bank, dredged channel, dock, pier, causeway, or other structure. [303] In addition to the exploration area, staging areas must be approved by the GLO and cannot be located in vegetated areas of tidal sand or mud flats, submerged aquatic vegetation, coastal wetlands, or vegetated dune areas. [304] For activities in waters less than three feet deep, the GLO may require use of air boats. [305]

In addition to general conditions set out in the rules, the regulation provides that the GLO will ensure compliance with pollution prevention requirement "through permit conditions designed to: avoid adverse impacts to natural resources, minimize unavoidable impacts, and to compensate for those significant and adverse impacts that may occur during the permitted activity."[306] The guidelines also require that any physical modification of the surface must be remedied upon completion of work under the permit (or sooner, if the commissioner determines that "immediate restoration is practical and is necessary to minimize impacts to natural resources"), and restoration must be coordinated with and approved by the GLO.

During operations, the permittee must immediately advise the GLO of the existence or reasonable anticipation of any "situations caused by the permittee's activities which may adversely affect the environment, aquatic life

[297] Id. The Land Commissioner can waive this condition in writing.
[298] Tex. Nat. Res. § 52.324.
[299] 31 TAC 9.11.
[300] Id. Some of the specific requirements reflect TCMP policies; for example, the requirement that anyone operating a vehicle, vessel, or equipment under a GEP is prohibited from discharging solid waste or garbage into state waters or on state-owned lands.
[301] 31 TAC 9.11.
[302] 31 TAC 9.11. Known rookery islands are depicted on a map maintained by the GLO.
[303] 31 TAC 9.11. Oyster reefs are defined as natural or artificial formations located in intertidal or subtidal areas that are composed of oyster shell, live oysters, and other organisms that are discrete, contiguous, and clearly distinguishable from scattered oyster shells, live oysters, and other organisms. Id.
[304] 31 TAC 9.11.
[305] Id.
[306] Id.

or wildlife, cultural resources, or other uses of the area in which the exploration activity is conducted."[307] The Commissioner may require biological monitors during geophysical or geochemical exploration. As a rule, any pollution or fish or wildlife kill must be immediately reported to the GLO. In these cases, the permittee is liable to the state for the value of fish or wildlife taken, killed, or injured by work under a permit. [308] (Prior to permit issuance, applicants must provide GLO with proof of liability insurance or other financial assurance up to $1 million.[309])

The Land Commissioner has authority to cancel the GEP if a permittee violates either a GLO rule or a term of the permit.[310] The state can also bring an action against the permittee for actual damages to the land caused by the exploration.[311]

Box R: Coastal Research Management Codes

State-owned tracts of submerged lands in the Gulf of Mexico and Texas's bays are assigned "resource management codes" to provide guidance to prospective developers. The assigned code provides "guidelines for activities within each tract" and are intended to "enhance protection of sensitive natural resources by providing recommendations for minimizing adverse impacts from mineral exploration and development activities." While developed for use by prospective mineral lessees, **these resource codes provide information on geographic, ecological, and other land characteristics that may be useful for OSW developers** interested in siting wind power facilities, transmission infrastructure, and/or related facilities on Texas's submerged lands. A few example codes are:

- MB – Avoid impacts to hard substrate reefs.
- MO – Work on this tract is subject to review under the Endangered Species Act.
- MP – This tract contains designated use areas (e.g., coastal protected areas, navigation districts, patented areas, and other designated use areas, which may be subject to special recommendations.)
- TC – Dredging, oil and gas related activity, development operations, or watercraft landing may be prohibited, within 1000 feet of a bird rookery during peak nesting season.

Resource management codes are provided for informational purposes and are not binding for purposes of GLO mineral lease contracts or otherwise. As GLO explains, "Before beginning work on a state tract, lessees may be required to conduct a survey for sensitive habitats and resources. In most cases, tract development may proceed when an applicant demonstrates that the development plan is not inconsistent with the concerns listed in the codes. When impacts to sensitive habitats or resources are unavoidable, development may be allowed, subject to negotiation for mitigation." According to GLO, the codes include recommendations from USACE, USFWS, National Marine Fisheries Service, TPWD, and the Texas Historical Commission and are useful to "assist state land lessees during the Corps of Engineers permitting process by informing a prospective operator of restrictions that may be included in the Corps permit." **A map displaying tracts and their corresponding resource management codes is available on the GLO's Land Management GIS website through the Coastal Resource Management Viewer.**

Sources: GLO, ACCESS CODES (n.d.), available at: https://www.glo.texas.gov/energy-business/oil-gas/mineral-leasing/leasing/index.html; GLO Energy Business, Leasing: Resource Management Codes, https://www.glo.texas.gov/energy-business/oil-gas/mineral-leasing/leasing/index.html (accessed Aug. 2023); GLO, Land Management: GIS Maps and Data, *supra*.

[307] Id.
[308] 31 TAC 9.11. This requirement is in accordance with Texas Parks and Wildlife Code, §12.301.
[309] 31 TAC 9.11.
[310] Tex. Nat. Res. § 52.324
[311] Tex. Nat. Res. § 52.325.

Oyster Leases

Any future OSW-related facilities within or traversing Galveston Bay will encounter some geographic restrictions based on preexisting oyster leases and/or natural oyster beds. In Texas, the right to harvest oysters from public or private oyster beds is granted by the TPDW, which issues private oyster leases, permits, and licenses. Under Texas law, all "natural oyster beds" are public oyster beds, and all oyster beds not designated as private are public oyster beds.[312] In the 2023 legislative session, the legislature amended the definition of natural oyster bed to be based on the predominant composition of the substrate by oyster shell or live oysters; until September 1, 2023, when the amendment took effect, natural oyster beds were defined according to the oyster density within 2,500 square feet of a reef or bed.[313]

Oyster leases, permits, and licenses are issued by TPDW, though input and/or permissions from other agencies is typically required for new leases. A lease and a permit are required to produce and harvest oysters on private beds in Texas state waters, except for certain riparian owners.[314] An oyster license is the instrument used to grant permission to take oysters from public waters, whether for commercial or non-commercial purposes. Because an oyster license does not confer a right to control a designated area of state submerged land, the license issuance process is not discussed further in this report.

Private Oyster Leases on State-Owned Lands. In Texas, oyster leases on state lands fall into two categories. The first type of lease, which is formally referred to as a "certificate of location," authorizes on-bottom cultch planting and exclusive rights to harvest from created oyster beds. The second type of lease is available pursuant to the cultivated oyster mariculture program, which was established in 2020, for off-bottom culture in state waters.

Certificates of Location. In general, under the Texas Parks and Wildlife Code all oyster beds and reefs that are not "natural oyster beds" are subject to "location." In the mid-1980s, the Texas legislature imposed a moratorium on new oyster certificates of location. According to NOAA Fisheries, as of 2021, the moratorium still applied to certificates of location, effectively prohibiting new on-bottom cultch planting.[315] However, in 2023, the Texas legislature amended the Parks and Wildlife Code to enable TPWD to subject "degraded"[316] natural oyster beds to location and mandated the establishment of a regulatory program to issue certificates of location for the restoration of natural oyster beds.[317] To the extent new certificates of location actually are issued, this new program may result in new limitations on the siting alternatives for OSW-related facilities in coastal waters.

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[312] Tex. Parks & Wild. § 76.002.
[313] Tex. Parks & Wild. § 76.001.
[314] landowners whose land includes or abuts a creek, bayou, lake, and/or cove and riparian owners of land along a bay shore, who are allowed to plant oysters up to 100 yards out into the water (though the riparian owner's right to a natural oyster bed in a bay is not exclusive. Tex. Parks & Wild. § 76.004.
[315] NOAA Fisheries, STATE-BY-STATE SUMMARY OF SHELLFISH AQUACULTURE LEASING PERMITTING REQUIREMENTS (2021), available at: https://media.fisheries.noaa.gov/2021-09/Report-State-by-State-Summary-of-Shellfish-Aquaculture-Leasing-Permitting-Requirements-2021.pdf. In the absence of a moratorium, the Parks and Wildlife Code allows any U.S. citizen or corporation to apply for a certificate of location authorizing the applicant to "plant oysters and make a private oyster bed in the public water of the state." Tex. Parks & Wild. § 76.006. A certificate of location may not be issued in a natural oyster bed, an area within 1,000 feet of an existing oyster lease (unless it is owned and controlled by the same applicant), or an area subject to exclusive rights of riparian owners or a bay shore area within 100 yards of the shore. 31 TAC 58.30.
[316] Status as "degraded" is based on relative abundance, availability of cultch material, sediment overburden, how long the area has been exhausted, and other indicators. Tex. Parks & Wildlife Code § 76.003.
[317] See Tex. Parks & Wild. § 76.001, id. at 76.022 (effective Sept. 2023). The TPWD is directed to coordinate with GLO in developing the program rules. Id.

An oyster lease is effective when TPWD issues the "locator" a certificate signed by the director.[318] The lease for a location has a 15-year term.[319] As of 2020, there were 43 private oyster leases (areas under "location"), all of which are located in Galveston Bay.[320] Those leases range from 11 acres to 100 acres in size, totaling around 2,300 acres.[321] **The holder of a certificate of location has the same rights to exclude others from the location that an owner ("freeholder") would have**, as long as the stakes/pipes and buoys are maintained in their correct positions and the locator complies with state laws and regulations governing fish and oyster industries.[322]

Leases for Off-Bottom Cultivation. In 2019, the Texas legislature established a new program to authorize "cultivated oyster mariculture." Regulated separately from natural oyster beds and private oyster beds, cultivated oysters are defined as "oyster[s] grown at any point in the life cycle of the oyster in or on an artificial structure suspended in the water or resting on the bottom."[323] In developing rules to implement a cultivated oyster mariculture program, TPWD was directed to coordinate with the GLO and other state agencies.[324] The program rules were issued in 2020. Under the rules, in addition to a lease agreement, a cultivated oyster mariculture permit must be obtained from TPWD. As of December 2022, TPWD had issued two oyster mariculture permits.[325]

When a proposed oyster mariculture facility is within or partially within public water, the rules require TPWD to hold a public meeting in the nearest municipality to take public comment on the proposed project.[326] Permittees are required to mark the boundaries of the permitted area with buoys or other permanent markers before placing infrastructure and maintain the boundary markers while the permit is in effect. This and all other infrastructure must be removed within 60 days of permit expiration or revocation. In general, to maintain the permit each year, the permittee must provide evidence to the department that at least 100,000 oyster seed per acre was planted.[327]

TPWD guidance for applicants encourages coordination with agency staff to evaluate potential sites using the department's **Marine Spatial Planning Tool, which helps identify siting factors** that affect the eligibility of a given location for a mariculture lease. [328] As explained by TPWD,

> "Some areas may not be permitted if they are a navigational hazard, closed to oyster harvest…, currently leased (e.g., oil and gas, coastal projects, etc.), on or near sensitive habitat (seagrass, oyster

[318] Tex. Parks & Wild. § 76.012. A single certificate of location cannot include more than 100 acres of submerged land, and no single person/entity may own, lease, or control more than 300 total acres of submerged land under certificates of location. Id. at § 76.007.
[319] Tex. Parks & Wild. § 76.018. A failure to pay annual rent (or other applicable fee) within 90 days of the due date terminates the lease. Tex. Parks & Wild. § 76.017.
[320] Christine Jensen, TPWD, STATUS UPDATE OF THE TEXAS OYSTER FISHERY (Mar. 9, 2020), available at: https://www.gsmfc.org/ann_mtgs/2020-03/Molluscan_Shellfish/Status_Update_of_Texas_Oyster_Fishery_2020-03.pdf.
[321] See id., see also Gary Cartwright, "Consider the Oyster," TEXAS MONTHLY (Apr. 2010), available at: https://www.texasmonthly.com/food/consider-the-oyster/.
[322] Id. at **§** 76.015.
[323] Tex. Parks & Wild. § 75.0101.
[324] Tex. Parks & Wild. § 75.0103.
[325] 31 TAC 58.350. In an interview with *Texas Monthly*, one of the new permit holders explained that as part of a confusing and fragmented approval process, he was required to obtain siting approvals from TPWD, GLO, TCEQ, and the Texas Department of Agriculture, as well as the U.S. Coast Guard and USACE (which incorporated USFWS rules and input). See Jason Heid, "Relentless Rains, Bedeviled Bureaucrats, and Misplaced Mollusks: The Ill-fated Launch of Texas's First Oyster Farm," TEXAS MONTHLY (Dec. 2022), available at: https://www.texasmonthly.com/food/texas-first-oyster-farm-launch-saga/.
[326] 31 TAC 58.355.
[327] 31 TAC 58.353.
[328] TPWD, Oyster Mariculture in Texas—FAQs, https://tpwd.texas.gov/fishboat/fish/commercial/com_cf/faqs.phtml (accessed Aug. 8, 2023).

reefs, rookery islands, etc.), or heavily used by other users (commercial or recreational fishing, sailing, etc.). All proposed sites must be approved by TPWD before leases, permits, or authorizations from other agencies can be obtained."[329]

According to Texas Sea Grant, applicants should ensure sites meet the following minimum requirements before seeking approval from TPWD:

- 200 feet from seagrass habitat
- 500 feet from wild oyster habitat
- 2,000 feet from rookeries (bird breeding colonies)
- 1,000 feet from shoreline (or you have landowner permission to be closer)
- 1,000 feet from oil and gas infrastructure OR leases
- No public use conflicts (e.g., popular fishing area, visible nuisance to waterfront property owners).[330]

[329] Id.

[330] Texas Sea Grant, Oyster Mariculture: Permitting Process Overview, https://oyster.texasseagrant.org/current-farmers/permiting-process-overview.html#CoordinationwithGeneralLandOffice (accessed Aug. 8, 2023).

State Protected Areas

A few provisions of the Parks and Wildlife Code and TPWD regulations may limit OSW-related actions on lands that the state holds under various protected lands classifications. **Unlike for oil, gas, and mineral activities, the Parks and Wildlife Commission is not explicitly authorized to "regulate the use" of protected areas for wind energy related activities.** [331]

State Parks, Natural Areas, and Historic Sites. Over 640,000 acres of land in Texas are owned or leased by TPWD, which manages these areas as state parks, natural areas, and historic sites.

General Use Rules. The rules of conduct for the state park system include general prohibitions on "harming, harassing, disturbing, trapping, confining, catching, possessing, or removing" any wildlife without a TWPD permit; willfully injuring or removing any plant life except by permit; disturbing "any rock, earth, soil" or other geological deposit except by permit; and disturbing or adversely impacting "prehistoric or historic resource," except by written order; and entering an area of a state park that has been closed for preservation or restoration.[332] Other guidance for these areas' use and management, which may limit potential OSW-related activities on or affecting lands held under these classifications, is set forth according to classification:

- **State Parks**: State parks is the classification used for "areas of natural or scenic character, often containing historical, archeological, ecological, or geological values selectively developed to provide resource-oriented recreational opportunities."[333] Pursuant to TPWD regulations, in general, state parks "should be developed to optimize recreational opportunities afforded by the site and to provide for a variety of facilities and activities while retaining the character of the natural setting," with the intensity of development providing for the sustainability of the resource. They "should be operated in an economically efficient manner, with appropriate cost recovery, while not compromising the natural or cultural resources or the enjoyment thereof." Management of state parks "should provide for a variety of resource oriented recreation and public uses not detrimental to the long term stewardship and conservation of the natural and cultural resources as identified in the site management plan." With regard to habitat, in state parks generally, "Habitat management should emphasize maintenance and restoration of natural communities, and natural biodiversity," and consistent with their site management plans state parks should be managed to "address habitat needs of indigenous flora and fauna including species and communities listed as threatened or endangered or species of special concern as identified by staff."[334]

[331] The PWC is authorized generally to "regulate the use" of state parks, wildlife management areas, and natural areas for "oil, gas, and other mineral recovery and associated activities as the commission considers reasonable and necessary to protect the surface estate of [such] lands or to protect human health or property." Tex. Parks & Wild. § 11.071.
[332] 31 TAC 59.134.
[333] 31 TAC 59.64.
[334] Id.

- **State Natural Areas:** Texas's "natural areas" are defined as "areas established for the protection and stewardship of outstanding natural attributes of statewide significance, which may be used in a sustainable manner for scientific research, education, aesthetic enjoyment, and appropriate public use not detrimental to the primary purposes." They generally "encompass examples of natural scenic beauty, natural communities, biological features, sensitive areas, or geological formations of statewide significance, or possess exceptional educational or scientific values." The general development standard is more protective than the standard for state parks: development in state natural areas "should be low-density in nature and limited to that appropriate for adequate control and sustainability of the resource, and for visitor access." Uses accommodated in state natural areas should be "low impact, resource oriented recreation, not detrimental to the continued preservation and stewardship of the natural and cultural features as outlined in the site management plan," and the areas generally should be managed "to insure [sic] the protection and perpetuation of the scenic or outstanding natural features." The habitat management provisions are the same as those noted previously for state parks. [335]

- **State Historic Sites:** State historic sites are established for the preservation and public enjoyment of "prehistoric and historic resources of statewide or national significance." Selected pursuant to detailed criteria adopted by the PWC, these are areas where "historical and aesthetic integrity" should be preserved, and where "encroachments from conflicting uses or facilities should be avoided." Uses in these areas should "provide for sustainability and resource-oriented recreation" or be "public uses that are not detrimental to the long term stewardship of the cultural and natural resources." In cases where "natural resources are a significant component of a State Historic Site," management "should emphasize maintenance and restoration of natural communities, and natural biodiversity" and address habitat needs of indigenous flora and fauna, including listed species and species of special concern. [336]

  The TPWD is responsible for meeting regularly with the Texas Historical Commission regarding plans to preserve and develop Texas historical sites.[337] The TPWD is authorized to acquire historical sites that meet one or more enumerated criteria; once acquired, the TPWD is required to "restore and maintain each historical site acquired under this section for the benefit of the general public."[338]

- **State Park and Historic Sites***:* As the name suggests, a State Park and Historical Site has a dual purpose: it is an area established for the "preservation, interpretation and public enjoyment of prehistoric and historic resources of statewide or national significance that also offers substantial recreational opportunities for visitors." Among other management standards identical or similar to those for state parks and state historic sites, the "historical and aesthetic integrity of a in a State Parks and Historic Site should be preserved, and encroachments from conflicting uses or facilities should be avoided." [339]

According to TPWD's state parks database, most of the 89 units in the state park system are state parks. Only a handful are named as natural areas, and none of those are in the coastal region.[340]

[335] 31 TAC 59.64.
[336] 31 TAC 59.64.
[337] Tex. Parks & Wild. § 13.0051, 13.010.
[338] Tex. Parks & Wild. § 13.005.
[339] Tex. Parks & Wild. § 13.005.
[340] See TPWD, Search State Parks, https://tpwd.texas.gov/state-parks/parks-map.

Easements and Leases. The Parks and Wildlife Code expressly **authorizes the PWC to grant, lease, or renew right-of-way easements on state parks, wildlife management areas, and natural areas for, among other things, electric lines and electrical substations.** These easements may be permanent or temporary but must contain "a full reservation of minerals in and under the land," as well as "other fair and reasonable conditions" imposed by the PWC. [341] With regard to leasing of lands held by the TPWD, the department is authorized to lease to a "a city, county, special district, nonprofit organization, or political subdivision."[342]

Use or Taking of State Park Lands by State Agencies and Local Governments. Under the Parks and Wildlife Code, state and local entities—i.e., a Texas department, agency, political subdivision, county, or municipality—may not approve "any program or project that requires the use or taking of any public land designated and used … as a park, recreation area, scientific area, wildlife refuge, or historic site" unless public notice and hearing are provided and two criteria are satisfied: "(1) there is no feasible and prudent alternative to the use or taking of such land; and (2) the program or project includes all reasonable planning to minimize harm to the land, as a park, recreation area, scientific area, wildlife refuge, or historic site, resulting from the use or taking." The statute is clear that these provisions are not a mandatory prohibition against the use of the area, if findings are made that justify approval of the program or project. The law is explicit that these "do not constitute a mandatory prohibition against the use of the area if the findings are made that justify the approval of a program or project," and that that the decision maker must consider "clearly enunciated local preferences." [343]

Wildlife Management Areas, Sanctuaries, and Preserves. Texas's wildlife management areas (WMAs) have been established to provide research, educational, and recreational opportunities in areas representative of the state's ecological regions.[344] According to TPWD, there are currently 50 WMAs, which cover nearly 750,000 acres of land and represent every ecoregion in Texas.[345] (Note: In at least one of these areas, the legislatively-established Matagorda Island State Park and Wildlife Management Area, PSF lands are explicitly excluded from the designated area.[346]) Many of Texas's WMAs are open to the public for recreational activities (e.g., biking, birding, fishing, hiking), and some provide hunting opportunities.[347]

Figure 6: Central Coast Wetlands Ecosystem Project Area (source: TPWD)

The TPWD is authorized to manage the wildlife and fish found on a wildlife management area "along sound biological lines."[348] In general, no person may take or attempt to take or possess any wildlife or fish from a wildlife management area except in the manner and during the times permitted by the department under the Parks and Wildlife Code.[349]

[341] Tex. Parks & Wild. § 11.301.
[342] Tex. Parks & Wild. §13.006.
[343] Tex. Parks & Wild. § 26.001.
[344] State law authorizes the TPWD to acquire, develop, maintain, and operate wildlife management areas and public hunting lands. Tex. Parks & Wild. § 81.401.
[345] TPWD, Wildlife Management Areas of Texas, https://tpwd.texas.gov/huntwild/hunt/wma/ (accessed Aug. 2023).
[346] Tex. Parks & Wild. § 22.201.
[347] TPWD, Wildlife Management Areas of Texas, https://tpwd.texas.gov/huntwild/hunt/wma/ (accessed Aug. 2023).
[348] Id.
[349] Tex. Parks & Wild. § 81.006.

There are 13 WMAs designated along the Texas Gulf Coast.[350] Eight of these coastal WMAs are part of the **Central Coast Wetlands Ecosystem Project** (see Figure 6), which was initiated by TPWD in the 1990s to "coordinate TPWD wetland related activities with other agencies, private landowners, and conservation groups."[351] According to the department, the project's broad mission is "to provide for sound biological conservation of all wildlife resources within the central coast of Texas for the public's common benefit." The highest-priority of the project's four goals is to "develop and manage habitats for indigenous and migratory wildlife species with a special emphasis on waterfowl."[352]

Other protected land area types include statutory sanctuaries and preserves, which are created by specific legislative action. One example from the central coast is the Galveston County Wildlife Sanctuary, where the "group of small islands located in Galveston Bay near Smith's Point and known as Vingt et Un Islands are a state wildlife sanctuary."[353] The law establishing the sanctuary provides that it is unlawful to "hunt *or in any way molest* any of the birds on any of the islands or within 50 yards of the islands" and/or to "enter on the islands for

Box S: Federally Protected Wildlife Areas in Texas

According to the National Park Service, there are 14 national parks and other sites managed by the NPS in Texas. Other federally managed lands in Texas include areas designated as part of the National Wildlife Refuge System, which are overseen by USFWS. National wildlife refuges along or near Texas's northern and central coast include, among others: the Texas Point National Wildlife Refuge, Sabine National Wildlife Refuge, McFaddin National Wildlife Refuge, Anahuac National Wildlife Refuge, Brazoria National Wildlife Refuge, Big Boggy National Wildlife Refuge, and San Bernard National Wildlife Refuge.

According to USFWS, limited commercial activities may be allowed in national wildlife refuges, but "only with a special use permit issued by the local office" that may include specific conditions. In general, public or private commercial use is authorized by permit when the use "contributes to the achievements of the national wildlife refigure purposes or the National Wildlife Refuge System mission" and the use is compatible with the particular refuge. (50 CFR 29.1.) (The USFWS provides a specific application for special use permits for operations associated with non-federal oil and gas rights.)

Texas state law authorizes TPWD to enter into agreements with federal agencies for the "protection and management" of wildlife resources on federal lands in Texas. (Tex. Parks & Wild. § 23.041.)

Sources: U.S. National Park Service, Texas, https://www.nps.gov/state/tx/index.htm (accessed Aug. 2023); USFWS, National Wildlife Refuge System, https://www.fws.gov/program/national-wildlife-refuge-system (accessed Aug. 2023); USFWS, Apply for a Special Use Permit on National Wildlife Refuges, https://www.fws.gov/service/special-use-permits-national-wildlife-refuges (accessed Aug. 2023).

[350] These are: Atkinson Island WMA; Candy Cain Abshier WMA; D.R. Wintermann WMA; Guadalupe Delta WMA; J.D. Murphree WMA ; Justin Hurst WMA ; Lower Neches WMA ; Mad Island WMA ; Matagorda Island WMA ; Powderhorn WMA ; Redhead Pond WMA ; Tony Houseman/Blue Elbow Swamp WMA ; and Welder Flats WMA. See TPWD, Wildlife Management Areas: Gulf Coast, https://tpwd.texas.gov/huntwild/hunt/wma/find_a_wma/maps/?action=getMap&region=4.

[351] M. Todd Merendino et. al, TPWD, THE TEXAS PARKS AND WILDLIFE DEPARTMENT CENTRAL COAST WETLAND ECOSYSTEMS PROJECT: A NEW APPROACH AT INTEGRATING NONGAME INTERESTS WITH EXISTING GAME MANAGEMENT PROGRAMS at 268 (1995), available at: https://seafwa.org/sites/default/files/journal-articles/MERENDINO-267-274.pdf.

[352] TPWD: Wetland Conservation and Management for the Texas Central Coast, https://tpwd.texas.gov/huntwild/wild/wetlands/central-coast/. The other goals are, in order of priority, to: "formulate research and management activities on WMAs and private lands and disseminate research results and management information to scientists, land managers, resource agencies, and other interested groups and individuals; … expand and improve WMA facilities to accommodate intensive research and management activities that will allow complete understanding of coastal ecosystems; and … provide optimal public outreach and recreational opportunity on state-owned lands compatible with the resource." Id.

[353] Tex. Parks & Wild. § 82.301.

any purpose without first obtaining permission from the department."[354] Compared with WMAs, a somewhat stricter standard of conduct generally applies to fish, wildlife, and birds in areas kept by the state for propagation or exhibition: "No person may take, *injure*, *or kill* any fish kept by the state in its hatcheries, or any bird or animal kept by the state on its reservation grounds or elsewhere for propagation or exhibition purposes."[355] On its face, this provision would prohibit unintentional injuries to fish/wildlife in these area types.

Scientific Areas. Texas law authorizes TPWD to promote and establish "a state system of scientific areas for the purposes of education, scientific research, and preservation of flora and fauna of scientific or educational value."[356] Any "public entity" and its agencies may "acquire, administer, and dedicate land as state scientific areas … under the policies of the commission."[357] The TPWD is authorized to formulate policies for the selection, acquisition, management, and protection of state scientific areas and to adopt rules and regulations necessary for the management and protection of scientific areas. Once a state or local park, preserve, wildlife refuge, or other area is designated as a state scientific area, the agency administering that area "is responsible for preserving the natural character of the area under the policies of the commission" (in addition to still complying with policies that applied to that land before its designation).[358]

In the Corpus Christi area, TPWD has established the Redfish Bay State Scientific Area "for the purpose of education, scientific research, and preservation of flora and fauna of scientific or educational value."[359] Within this area, it is illegal to "cause or allow any rooted seagrass plant to be uprooted or dug out from the bay bottom by a submerged propeller, except as may be permitted by a coastal lease issued by the Texas General Land Office or otherwise permitted under state law." [360]

Box T: Wildlife Co-Ops in the Oak-Prairie Wildlife District

Much of Texas's central coast is included in the state's Oak-Prairie Wildlife District, which "covers 26 counties in the southern Post Oak Savannah and Coastal Prairies ecoregions." According to TPWD, "the future of [these ecoregions] is in the hands of the private landowners," including ranchers and farmers whose lands are becoming more fragmented with each generation. Because many of these owners "no longer own enough acreage to effectively manage for wildlife without cooperating with their neighbors," state law authorizes the establishment of wildlife management associations, also called wildlife co-ops.

The TPWD may designate two or more contiguous (or "proximate") tracts of land as a wildlife management association area if each landowner applies for the designation; the land is inhabited by wildlife; and the agency finds that observing and collecting information on the wildlife will serve the wildlife management purpose of the state. (Tex. Parks and Wild. § 81.301.) The applicants must develop a wildlife management plan that conforms with TPWD guidelines, and the activities prescribed in the plan must be conducted at least annually to maintain the approved status. (Id. at § 81.302.)

According to TPWD, the Oak-Prairie wildlife district "leads the state in Wildlife Co-ops and the future of wildlife in this region of Texas depends largely on their success."

Source: TPWD, Oak-Prairie Wildlife Management, https://tpwd.texas.gov/landwater/land/habitats/oak_prairie/ (accessed Aug. 2023).

[354] Tex. Parks & Wild. § 82.302 (emphasis added).
[355] Id. at 81.001 (emphasis added).
[356] Tex. Parks & Wild. **§** 81.501.
[357] Id. at § 81.503.
[358] Tex. Parks & Wild. § 81.504.
[359] 31 TAC 57.921.
[360] Id.

WIND LEASES ON PRIVATE LAND

In Texas, around 95% of the land is privately owned.[361] Thus, it follows that almost all of the existing onshore wind turbines in Texas have been developed on private lands. In the words of one legal scholar**,** "Siting of turbines on private land outside of municipalities is essentially unregulated in Texas."[362] However, state law does require lease agreements for wind power facilities on private land to include certain provisions to protect the property owner, which may not be waived by the parties to the contract.

In 2019, the Texas legislature passed a law requiring certain provisions be included in private contracts—referred to as "wind power facility agreements"—between entities operating wind power facilities on leased land and landowners. These contracts must include provisions that: (1) the wind power facility operator is responsible for removing facilities from the landowner's property and performing certain restoration activities on the property (e.g., filling holes) after decommissioning; and (2) the lessee must obtain and deliver to the landowner "financial assurances" (akin to a security deposit) in an amount equal to the estimated cost of removing the wind power facilities from the landowner's property.[363]

Right-of-way easements on private lands are also governed by private agreement, subject to certain minimum standards under state law, and may be obtained by certain utility entities where negotiations fail. This is discussed in the section of this report covering electricity generation, transmission, and distribution.

WATER QUALITY

Texas's water pollution control laws may affect the permitting, construction, and operation of offshore wind energy facilities. Facilities such as turbines, although they are more likely to be placed in federal waters, may be subject to state review. In addition, transmission and other facilities may be placed in Texas state waters, and the construction and operation of these facilities may result in waste heat, turbidity, or other forms of pollution. These facilities thus may be subject to state water pollution control law administered by the Texas Commission on Environmental Quality (TCEQ).[364]

Water Quality Standards

Section 303 of the federal Clean Water Act directs states to adopt water quality standards that define the goals for ambient conditions within waters of the state.[365] The standards must identify the designated use or uses to be made of the waters, provide narrative or numerical water quality criteria sufficient to protect those uses, and establish an antidegradation policy to protect those waters currently meeting or exceeding levels necessary to protect designated uses.

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[361] Precise percentages vary by source, ranging from 96.3% (Headwaters Economics) to 93% (TPWD).
[362] Lisa N. Garrett, *Wind in the Wild West to Wind in the Midwest: How Iowa and Nebraska Could Implement Texas Strategies to Increase Installed Wind Capacity*, 48 TEX. ENVTL. L.J. 101, 105 (2018) (citing Ernest E. Smith & Becky H. Diffen, *Winds of Change: The Creation of Wind Law*, 5 TEX. J. OIL GAS & ENERGY L. 165, 190 (2010)). However, "Siting may be regulated within municipalities; for example, in 2008, the City of Lamesa passed an ordinance placing restrictions upon the installation of wind energy facilities within city limits. Lamesa, Tex., Ordinance No. 0-08-09 (Aug. 5, 2008)." Id.
[363] Tex. Util. § 301.0004.
[364] Tex. Water § 26.023.
[365] 33 U.S.C. § 1313. Tribes are authorized to establish water quality standards for waters within their jurisdiction, but state standards will apply in the absence of approved tribal standards.

The Texas water quality standards apply to all "water in the state," including Gulf of Mexico waters from the coastline extending Gulfward to the three nautical *mile* line (beyond which EPA asserts its jurisdiction for Clean Water Act purposes). [366] The standards indicate which of the state's "designated uses" apply to each basin and waterbody.[367] Designated uses for Texas's Gulf of Mexico waters include primary contact recreation (level 1), "exceptional" aquatic life, and oyster waters.[368] Many Texas bays (or segments of bays) have the same designated uses as the Gulf of Mexico, including Upper Galveston Bay and Lower Galveston Bay. Some bays are designated for "high" aquatic life use and oyster waters.[369]

In addition to setting out the designated uses for each water body, the standards establish water quality criteria that apply to all waters or to specific designated uses. There are narrative "general criteria" that apply to human activities affecting all surface waters, including wetlands that are classified as "waters of the United States"—these include criteria for, e.g., aesthetic parameters, floating/suspended/settleable solids, toxic substances, nutrients, temperature, and salinity.

For *aesthetic parameters*, which are affected by dredging and other human activities disturbing the water bottom (among other causes), the general criteria for surface waters include, among others:

- Water "must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses."

- Water "must be essentially free of settleable solids conducive to changes in flow characteristics of stream channels or the untimely filling of surface water in the state. This provision does not prohibit dredge and fill activities that are permitted in accordance with the Federal Clean Water Act."

- Water "must be maintained in an aesthetically attractive condition."

- "Waste discharges must not cause substantial and persistent changes from ambient conditions of turbidity or color." [370]

For *temperature*—one of the pollutants that may relate directly to OSW operations beyond construction—**TCEQ has established both maximum temperature and temperature differential standards that apply to Gulf waters, bays, and tidal river reaches**. The absolute maximum temperature is 95 degrees F; the maximum differential (rise over ambient temperature) during fall, winter, and spring is 4 degrees F; and in summer, the maximum differential is 1.5 degrees. The maximum differential criteria do not apply to "industrial cooling impoundments, temperature elevations due to discharges of treated domestic (sanitary) effluent, and

[366] See Tex. Water § 26.001 (defining "water in the state" as "groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state." But see U.S. EPA, 2018 TEXAS SURFACE WATER QUALITY STANDARDS (updated Mar. 18, 2021) (noting "EPA has not approved the definition of "surface water in the state" in the TX WQS, which includes an area out 10.36 miles into the Gulf of Mexico by reference to §26.001 of the Texas Water Code. Under the CWA, Texas does not have jurisdiction to establish water quality standards more than three nautical miles from the coast, but does not extend past that point. Beyond three miles, EPA retains authority for CWA purposes"), available at https://www.epa.gov/sites/default/files/2020-01/documents/txwqs-2018.pdf.
[367] U.S.C. Title 33, Part IX, § 1111.
[368] 30 TAC 307.7, Appendix A, available at: https://texreg.sos.state.tx.us/fids/202203625-3.pdf.
[369] Id.
[370] 30 TAC 307.4.

temperature elevations within designated mixing zones or industrial cooling water areas."[371] The 95-degree absolute maximum does not apply in "designated cooling water areas."[372] Only a few other numeric criteria—e.g., for dissolved oxygen, pH, and bacteria—have been established for bays, estuaries, and the Gulf of Mexico.[373]

> A "mixing zone" is the "area contiguous to a permitted discharge where mixing with receiving waters takes place and where specified criteria…can be exceeded. Acute toxicity to aquatic organisms is not allowed in a mixing zone, and chronic toxicity to aquatic organisms is not allowed beyond a mixing zone." (30 TAC 307.3.)

The water quality standards also include *an antidegradation policy*, which generally requires that the existing water uses and the level of water quality necessary to protect the existing uses must be maintained and protected. Pursuant to TCEQ rules, for federal permits for the discharge of fill or dredged material under Section 404 of the Clean Water Act, the "antidegradation policy and public coordination is implemented through the evaluation of alternatives and mitigation under [CWA] § 404(b)(1). State review of alternatives, mitigation, and requirements to protect water quality may also be conducted for federal permits that are subject to state certification [under] § 401 and conducted in accordance with [the chapter of the code relating to certification]."

The various other "state and federal permitted and regulated activities that increase pollution of water in the state" are subject to the detailed antidegradation policies set out in TCEQ regulations and implementation policies.[374] The Texas antidegradation policy offers three tiers of protection to state waters, depending on their existing water quality. The first level, known as Tier 1, applies by default and requires that "existing uses and water quality sufficient to protect existing uses will be maintained." [375] Tier 2 requires that **i**n places where water quality exceeds fishable/swimmable quality, "activities subject to regulatory action will not be allowed if they would cause degradation," but exceptions are allowed "made if it can be shown to the TCEQ's satisfaction that the lowering of water quality is necessary for important economic or social development." (The third level, which requires protection of outstanding national resource waters, does not currently apply in Texas, where no such waters are designated.)

According to TCEQ's *Standards Implementation Procedures*, "The second tier of the antidegradation policy generally applies to water bodies that have existing, designated, or presumed uses of primary and secondary contact recreation and intermediate, high, or exceptional aquatic life waters" – which include the Gulf of Mexico, bays, and estuaries.[376] For Tier 2 reviews, "parameters of concern" for an individual water body may include, among other things, temperature, suspended solids, and turbidity; formulas for determining whether new discharges constitute potential degradation are found in the implementation procedures, as are examples. Examples where degradation is "unlikely to occur" (except "where site-specific biological, chemical, or physical conditions in a water body create additional sensitivity or concern, or where background concentrations are adversely elevated") include, among others: increased TSS loading, if effluent concentrations are maintained at 20 mg/L or less; and increased temperature loading, if "end of pipe" temperatures are "not expected to be

[371] 30 TAC 307.4.
[372] 30 TAC 307.4. Designated cooling water area is defined as a "designated area associated with a permitted wastewater discharge where numerical temperature criteria are not applicable…."
[373] 30 TAC 307.7, Appendix A, *supra*.
[374] 30 TAC 307.5.
[375] Id. The implementation procedures note, "New TPDES permits that allow increased pollution loading are subject to review under Tier 1 of the antidegradation policy." See TCEQ, PROCEDURES TO IMPLEMENT THE TEXAS SURFACE WATER QUALITY STANDARDS, *infra*.
[376] TCEQ, PROCEDURES TO IMPLEMENT THE TEXAS SURFACE WATER QUALITY STANDARDS at 61 (June 2010), available at: https://www.tceq.texas.gov/downloads/permitting/water-quality-standards-implementation/june-2010-ip.pdf.

significantly higher than applicable instream temperature criteria." **Examples of situations where degradation is likely to occur include, among others, "Increased loading of TSS that would produce a visible turbidity plume extending past the designated aquatic life mixing zone.**"[377]

According to the implementation procedures, if a preliminary screening under Tier 2 indicates that the proposed discharge is likely to degrade water quality, then the applicant is notified and additional information is requested, including: additional information about the nature of the discharge; an "analysis of alternatives to the proposed discharge that could eliminate or reduce the anticipated degradation," including an assessment of cost and feasibility; and an "evaluation of whether the proposed discharge will provide important economic and social development in the area where the affected waters are located" based on factors including employment, improved community tax base, and "[c]orrection of an environmental or public health problem."[378] When making a final determination in an antidegradation review, TCEQ may refer questions concerning the review to the State Office of Administrative Hearings for an administrative hearing. [379]

Water Pollution Permitting

Consistent with the Clean Water Act, discharge of a pollutant from a point source in Texas is prohibited in the absence of a Texas Pollutant Discharge Elimination System (TPDES) permit issued by TCEQ (or, in the case of oil, gas, and geothermal facilities, by the Railroad Commission of Texas).[380]

With the notable exception of OSW-powered "clean hydrogen" production facilities (see below), TCEQ's water pollution permitting requirements are likely to have limited direct applicability to OSW facilities because these facilities are unlikely to discharge pollution once construction is complete. For example, the Cape Wind project application indicated that neither turbines nor the electrical service platform require the use of water for operations or maintenance, and runoff of rainwater from these facilities will affect water quality and therefore does not require a stormwater discharge permit.[381] Similarly, although underwater transmission lines may require permits from the U.S. Army Corps of Engineers for construction in federally-protected waters pursuant to section 404 of the CWA and Section 10 of the Rivers and Harbors Act, cable construction would not likely require a TPDES permit from the state of Texas. Onshore facilities—including transmission lines located in upland areas—are likely to require permitting through the program for stormwater discharges related to construction.[382]

While submarine cables and most offshore generation facilities are unlikely to require TPDES permitting, the same cannot be said for projects to produce "clean hydrogen" in Texas using OSW power. Clean hydrogen, also called "green hydrogen," describes using renewable energy sources to produce hydrogen through electrolysis: a process in which "[sea]water molecules are split into oxygen and hydrogen using an electric current" generated by, e.g., OSW turbines.[383] This process produces a form of "wastewater" that must be discharged

[377] TCEQ, PROCEDURES TO IMPLEMENT THE TEXAS SURFACE WATER QUALITY STANDARDS, *supra*, at 65-66.
[378] Id. at 66.
[379] Id.
[380] Tex. Water § 26.121, 26.131.
[381] See Cape Wind Energy, OFFER FOR LEASE, EASEMENT OR RIGHT-OF-WAY AND GRANT OF LEASE, EASEMENT OR RIGHT-OF-WAY FOR ENERGY AND RELATED PURPOSES at D1, available at: www.boem.gov.
[382] See generally TCEQ, Stormwater General Permit for Construction Activities, https://www.tceq.texas.gov/permitting/stormwater/construction. For a description of stormwater permitting considerations for a previously approved offshore wind project, see MMS, CAPE WIND ENERGY PROJECT: FINAL ENVIRONMENTAL IMPACT STATEMENT, OCS Pub. No. 2008-040, at Appendix C: Draft Stormwater Prevention Plan (2009).
[383] U.S. Dep't of Energy, How Wind Energy Can Help Clean Hydrogen Contribute to a Zero-Carbon Future (Aug. 16, 2022), https://www.energy.gov/eere/articles/how-wind-energy-can-help-clean-hydrogen-contribute-zero-carbon-future.

back into the ocean; the discharged water is significantly higher-salinity, and thus may be considered a pollutant by water quality regulators.[384]

In December 2022, two companies—Air Products and AES—announced their "plans to invest approximately $4 billion to build, own and operate a green hydrogen production facility in Wilbarger County, Texas."[385] The planned project, described by the developers as a "mega-scale renewable power to hydrogen project," would generate around 1.4 GW of wind and solar energy to create hydrogen from water. [386]

Box V: Water Quality Enforcement by TPWD

An interesting feature of the Texas Water Code is the legislature's grant of authority to TPWD to enforce water quality laws when a violation impacts their jurisdictional resources. In situations where "it appears that a violation or a threat of violation" of the TPDES permit requirement or other TCEQ rule, permit, or order "affects aquatic life or wildlife," TPDW and its employees may have a suit brought against the violator in district court for injunctive relief, civil penalties, or both; in some cases, compensatory damages may also be recovered and used by the department to restore the damaged resource. (Tex. Water § 7.109.)

Water Quality Certification

Even if offshore renewable energy facilities are placed in federal waters, they may be subject to state review pursuant to Section 401 of the Clean Water Act. Section 401 requires states to review applications for federal permits and licenses to certify that the federally authorized actions will not violate adopted water quality standards. No federal license or permit may be granted until the certification has been obtained (or waived by state inaction).[387]

In Texas, TCEQ is the lead agency responsible for water quality certification, except with respect to oil and gas exploration, which is handled by the Railroad Commission of Texas. Among other situations, TCEQ is responsible for conducting Section 401 reviews of applications for USACE permits under Section 404 of the Clean Water Act.

[384] See generally the 2021 environmental impact analysis for the HT1 Hydrogen Demonstrator Project off the coast of Scotland, available at: https://marine.gov.scot/sites/default/files/vattenfall_-_screening_opinion_request_report_redacted.pdf.
[385] AES Corp., "Air Products and AES Announce Plans to Invest Approximately $4 Billion to Build First Mega-scale Green Hydrogen Production Facility in Texas" (Dec. 8, 2022), PR Newswire, available at: https://www.prnewswire.com/news-releases/air-products-and-aes-announce-plans-to-invest-approximately-4-billion-to-build-first-mega-scale-green-hydrogen-production-facility-in-texas-301697873.html
[386] Id.
[387] 33 U.S.C. § 1341.

The general procedures and criteria for applying for, processing, and reviewing state certifications under section 401 are found in the Title 30, Chapter 279 of the Texas Administrative Code. Information about additional application requirements, including new forms that must be submitted to reflect updates to EPA regulations in 2020 (see Box W), is found on the TCEQ website.[388]

Notwithstanding the present uncertainty regarding the regulatory scope and process for implementing Section 401 (see Box W), **certification may prove to be the most potent regulatory provision available to Texas in the water quality context.** Texas would have the opportunity to certify any offshore renewable energy project that affects state waters, including through direct placement of generation facilities or through placement of transmission lines in state waters. Projects that fail to meet state water quality standards may be halted,[389] or the state may place conditions on their approval.[390]

Box W: Uncertainty as to Scope of Future Section 401 Reviews

Section 401 certification has been carried out by states for almost 50 years under regulations adopted by EPA in 1971. Since 1994, when the Supreme Court ruled in PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, states have exercised their authority under Section 401 to impose conditions on proposed federal license and permit "activities as a whole"—i.e., not only on the "discharge" itself—under the legal cover provided by that ruling.

After 25 years of status quo, in 2019, the Trump administration proposed to reverse the Supreme Court's interpretation of Section 401 by adopting new regulations. The Trump rule, finalized by EPA in 2020, essentially adopted the dissenting view from the 1994 Supreme Court case, authored by Justice Thomas, which had argued for a narrower interpretation of the statute that would allow states to impose only "direct conditions" on "discharges."

In June 2021, EPA initiated a rulemaking to amend the 2020 rule, citing factors such as "to the text of CWA section 401; congressional intent and the cooperative federalism framework of CWA section 401; concerns raised by stakeholders about the 2020 Rule, including implementation-related feedback; … and issues raised in litigation challenging the 2020 Rule" (88 Fed. Reg. at 66564). Meanwhile, according to the TCEQ website, the state has been implementing revised procedures to comply with the 2020 rule, recognizing that the state "must transition to a new process that complies with the requirements of both the Rule and 30 TAC §279."

In September 2023, EPA finalized a new rule that replaces the 2020 Trump rule. According to its preamble, the 2023 rule is better "align[ed] with the statutory text and purpose of the CWA" and is consistent with "elements of section 401 certification practice that have evolved" over 50 years.

Sources: PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, 511 U.S. 700 (1994); In Re: Clean Water Act Rulemaking, 568 F. Supp. 3d 1013 (N.D. Cal. 2021); Louisiana et al. v. American Rivers et. al, Supreme Court of the United States' ruling on Application for Stay (Apr. 6, 2022); In re Clean Water Act Rulemaking, 60 F.4th 583 (9th Cir. 2023); TCEQ, 401 Certification Reviews, https://www.tceq.texas.gov/permitting/401certification (accessed Aug. 2023).

[388] TCEQ, 401 Certification Reviews, https://www.tceq.texas.gov/permitting/401certification (accessed Aug. 2023).
[389] See, e.g., Islander East Pipeline Co. v. McCarthy, 525 F.3d 141 (2d Cir. 2008) (upholding Connecticut's determination that offshore pipeline project would violate water quality standards).
[390] See, e.g., MMS, CAPE WIND ENERGY PROJECT: FINAL ENVIRONMENTAL IMPACT STATEMENT, OCS Pub. No. 2008-040, at 1-12 (2009) (reviewing Massachusetts laws for the Cape Wind project to obtain a state water quality certification).

FISH AND WILDLIFE MANAGEMENT

In Texas, fish and wildlife are held in trust for the people of the state under the stewardship of the TPWD. Together, the TPWD and Texas's Parks and Wildlife Commission—referred to here as PWC or the Commission—have broad authority over the state's wildlife and fisheries.

In addition to any direct requirements affecting OSW siting or operations, wildlife-related requirements and/or considerations may be incorporated into other agencies' decision making. For example, when the GLO adopted rules governing geophysical exploration on PSF lands, the law required the GLO to "follow the recommendations of the Parks and Wildlife Department in making rules to prevent unnecessary pollution of water, destruction of fish, oysters, and other marine life, and obstruction of navigation."[391]

In general, the Commission—which consists of nine members appointed by the governor with state senate confirmation— develops policies, and the TPWD is responsible for implementing those policies to manage the state's living resources.[392] The TPWD consists of 13 divisions including but not limited to Wildlife, Coastal Fisheries, Inland Fisheries, State Parks, and an Executive office that, among other things, manages the agency's intergovernmental affairs.[393]

General Authorities to Protect and Manage Living Resources

The Commission and TPWD generally are responsible for, among other things:

- Regulating the taking and conservation of fish, oysters, shrimp, crabs, turtles, terrapins, mussels, lobsters, and all other kinds and forms of marine life, as well as sand, gravel, marl, mud shell, and all other kinds of shell[394];
- Providing recommendations that will protect fish and wildlife resources to local, state, and federal agencies that approve, permit, license, or construct developmental projects, and providing information on fish and wildlife resources to any local, state, and federal agencies or private organizations that make decisions affecting those resources[395];
- Conducting "scientific studies and investigations of all species of game animals, game birds, and aquatic animal life" to determine, among other things, "economic value," "environments" and "effects of any factors or conditions causing increases or decreases in supply"[396];
- Investigating fish kills and any type of pollution that may cause loss of fish or wildlife resources, taking necessary action to identify the cause and party responsible for the fish kill or pollution, estimating the monetary value of lost resources, and seeking restoration[397];
- managing the propagation and distribution of fish in state fish hatcheries and of birds and game in state reservations[398];

[391] Tex. Nat. Res. § 52.324.
[392] Tex. Parks & Wild. § 11.002; § 11.0151.
[393] TPWD, Agency History: TPWD Activities and History, https://tpwd.texas.gov/about/history#:~:text=The%20Texas%20Parks%20and%20Wildlife,managing%20parklands%20and%20historic%20areas (accessed Aug. 2023).
[394] Tex. Parks & Wild. § 1.011.
[395] Tex. Parks & Wild. § 12.0011.
[396] Tex. Parks & Wild. § 61.051.
[397] Tex. Parks & Wild. § 12.0011.
[398] Id.

- regulating the introduction and stocking of fish, shellfish, and aquatic plants into the public water of the state[399];
- Maintaining a list of, and regulating the take of, endangered species[400];
- Developing and periodically updating a comprehensive Land and Water Resources Conservation and Recreation Plan; and
- Developing a State Wetlands Conservation Plan for state-owned coastal wetlands.[401]

Fisheries Management Responsibilities

TPWD is responsible for regulating the taking and conservation of fish, oysters, shrimp, crabs, turtles and "all other kinds and forms of marine life."[402] The Coastal Fisheries division of TPWD manages marine fisheries in Texas's bays and Gulf of Mexico waters.[403] According to the agency, "The Coastal Fisheries staff work closely with other department divisions as well as other state, federal and international fishery management agencies to provide optimum opportunities from and conservation for the rich biological diversity inherent in Texas's marine waters."[404]

Texas's fisheries management laws and regulations primarily focus on direct, intentional take of fish and shellfish. In addition to game fish and shellfish, the Parks and Wildlife Code is required to develop and administer management programs to ensure "the continued ability of nongame species of fish and wildlife to perpetuate themselves successfully."[405] Specifically, the department may "propagate, distribute, protect, and restore nongame species," "develop habitats" for nongame species, and "acquire habitats" for nongame species.[406]

Habitat protection provisions and restrictions on potential OSW-related activities are limited; however, a few broadly applicable rules may apply in some situations. For instance, in 2013, the Texas legislature made it illegal to uproot "any seagrass plant"[407] from a bay bottom or other saltwater bottom area by means of a propeller.[408] There is an exception for uprooting or digging out that may be authorized by a commercial license or permit issued by TPWD, and certain activities that may result in incidental uprooting (e.g. anchoring a vessel, using an electric trolling motor) are defensible under the law.[409] Another broad general rule is that "No person may place in the water of this state an explosive, poison, or other substance or thing deleterious to fish," although there is an exception for "the use of explosives necessary for construction purposes when the use is authorized in writing by the department."[410]

Hatcheries, Fish Passes, and Artificial Reefs. The Parks and Wildlife Code authorizes PWC/TPWD to acquire land for (by purchase or appropriation), construct and maintain saltwater hatcheries and propagation farms for fish,

[399] Tex. Parks & Wild. § 12.015.
[400] Tex. Parks & Wild., Ch. 68.
[401] Tex. Parks & Wild. § 14.002.
[402] Tex. Parks & Wild. § 1.011.
[403] TPWD, Administration & Divisions, https://tpwd.texas.gov/about/administration-divisions (accessed Aug. 2023).
[404] https://tpwd.texas.gov/about/administration-divisions/coastal-fisheries
[405] Tex. Parks & Wild. § 67.002.
[406] Id.
[407] "Seagrass plant" means a flowering marine plant of the species: (1) Cymodocea filiformis, known as manatee grass; (2) Halodule beaudettei or Halodule wrightii, known as shoal grass; (3) Halophila engelmannii, known as star grass or Engelmann's seagrass; (4) Ruppia maritima, known as widgeon grass; or (5) Thalassia testudinum, known as turtle grass. Tex. Parks & Wild. § 66.024.
[408] Tex. Parks & Wild. § 66.024.
[409] Id.
[410] Tex. Parks & Wild. § 66.003.

oysters, and game on islands owned by the state in coastal water; freshwater hatcheries; and fish passes "leading from one body of tidewater to another."[411] According to the department, "Each year, TPWD stocks approximately 40 million fish in public lakes, ponds, and saltwater bays. Many of these fish are produced in the state's three saltwater and five freshwater hatcheries."[412]

Fish and wildlife in state hatcheries, farms, and fish passes enjoy special protections under the Parks and Wildlife Code. It is prohibited for any person to "take, injure, or kill any fish kept by the state in its hatcheries, or any bird or animal kept by the state on its reservation grounds or elsewhere for propagation or exhibition purposes."[413] The grounds of hatcheries and other state-controlled propagation areas are closed to the public, and no person may enter without the department's permission.[414] In general, it is prohibited to "operate, possess, or moor a vessel or other floating device" or to "place any piling, wire, rope, cable, net, trap, or other obstruction" in a fish pash that has been opened, dredged, excavated, constructed or maintained by TPWD between the Gulf of Mexico and an inland bay. A regulated fish pass can be natural or artificial, and the restricted area must be marked.[415]

The Parks and Wildlife Code directs TPWD to "promote, develop, maintain, monitor, and enhance the artificial reef potential" in state waters. The department's duties under the law include planning and reviewing permit applications, coordinating with relevant state and federal agencies, holding public hearings on proposed artificial reefs, overseeing maintenance and placement requirements.[416] The implementing regulations explain that no person may construct an artificial reef in the coastal waters of Texas without having entered into a "public reefing agreement" with the TPWD.[417]

In 1989, the Texas legislature directed TPWD to develop and implement a state artificial reef plan.[418] The plan was required by law to include, among other things, siting criteria (e.g., geographic, hydrographic, geological, biological, ecological, social, economic) and a "map that depicts priority areas for artificial reef development consistent with this chapter and the National Fishing Enhancement Act."[419] The legislation established the following minimum standards for the siting, construction, maintenance, and management of artificial reefs in a manner that:

> "(1) enhances and conserves fishery resources to the maximum extent practicable;
> (2) facilitates access and use by Texas recreational and commercial fishermen;
> (3) minimizes conflicts among competing uses of water and water resources;
> (4) minimizes environmental risks and risks to personal and public health and property;
> (5) is consistent with generally accepted principles of international law and national fishing law and does not create any unreasonable obstruction to navigation;
> (6) uses the best scientific information available; and
> (7) conforms to the state artificial reef plan." (Tex. Parks & Wild. § 89.023.)

[411] Tex. Parks & Wild. § 81.101. Freshwater hatcheries also are authorized. Id.
[412] TPWD, Stocking Public Waters, https://tpwd.texas.gov/fishboat/fish/management/stocking/ (accessed Aug. 2023).
[413] Tex. Parks & Wild. § 81.001.
[414] Tex. Parks & Wild. § 81.003.
[415] Tex. Parks & Wild. § 66.204.
[416] Tex. Parks & Wild. § 89.002.
[417] 31 TAC 57.950.
[418] Tex. Parks & Wild. § 89.021. A copy of the plan's third iteration is available at: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_pl_v3400_0332.pdf.
[419] Tex. Parks & Wild. § 89.022.

According to the artificial reef plan, a coastal easement lease from the GLO is required for an artificial reef project, among other state and federal permits.[420] An interactive GPS map maintained by TPWD shows many artificial reefs in and offshore Texas's Gulf of Mexico waters.[421] While there is no provision in Texas law for exclusive use of the reef site by the permittee, the locations of existing artificial reefs may be relevant to developers and the GLO when considering OSW siting alternatives.

Endangered and Threatened Species

Under Texas law, species of fish or wildlife that are indigenous to Texas are legally "endangered" if listed on either the federal List of Endangered Native Fish and Wildlife *or* the Texas list of fish and wildlife threatened with statewide extinction.[422] Species are eligible for classification as threatened with statewide extinction if the department finds that the continued existence of the fish or wildlife is endangered to "the destruction, drastic modification, or severe curtailment of its habitat" and/or other natural or man-made factors.[423]

As explained by the TPWD, "The state list deals only with the status of the species within the borders of Texas. A federal listing means that an animal is in trouble throughout its entire range which may cover several different states (ex. bald eagle)."[424] In effect, species listed under the federal Endangered Species Act are protected by both state law, which protects individual animals, and federal law, which also protects listed species' critical habitat.[425] In July 2023, for example, NOAA Fisheries proposed to designate as critical habitat for green sea turtles "nearshore waters from the mean high water line to 20 meters depth" in the state of Texas from the Mexico border to and including Galveston Bay."[426]

According to TPWD guidance, **Texas law prohibits "any take (*incidental or otherwise*) of state-listed species**"—which include those incorporated from the federal list—without a scientific collection permit or a letter authorizing relocation of fish or

TPWD maintains an online county-by-county database of rare, threatened, and endangered species. Accessed in July 2023, the tool indicates that listed species in Galveston County include:

- 2 amphibians;
- 15 birds;
- 6 fish;
- 19 mammals (including 7 bat species, blue whale, Bryde's whale, humpback whale, North Atlantic right whale, sei whale, sperm whale, and West Indian manatee); and
- 18 reptiles (including Atlantic hawkbill sea turtle, Kemp's Ridley sea turtle, leatherback sea turtle, green sea turtle, and loggerhead sea turtle).

[420] C. Dianne Stephan et al., TPWD, TEXAS ARTIFICIAL REEF FISHERY MANAGEMENT PLAN at 11 (1990), available at: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_pl_v3400_0332.pdf.
[421] TPWD, Texas Artificial Reefs Interactive Mapping Application, https://tpwd.texas.gov/gis/ris/artificialreefs/.
[422] Tex. Parks & Wild. § 68.002. For plants, species of native plants are "endangered, threatened, or protected" if they are listed as such on the federal List of Endangered Plant Species or the list of endangered, threatened, or protected native plants filed by the director of TPWD. Tex. Parks & Wild. § 88.002. State law prohibits buying, selling, and collecting listed plants but does not address incidental harm.
[423] Tex. Parks & Wild. § 68.003.
[424] TPWD, Species Protection Basics, https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/nongame/listed-species/species-protection.phtml#:~:text=TPWD%20regulations%20prohibit%20the%20taking,the%20issuance%20of%20a%20permit (accessed Aug. 2023).
[425] TPWD, PROTECTION OF STATE-LISTED SPECIES: TEXAS PARKS AND WILDLIFE DEPARTMENT GUIDELINES (n.d), available at: https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/media/tpwd_statelisted_species.pdf.
[426] USFWS, Proposed Habitat for the Green Sea Turtle: Frequently Asked Questions (Jul. 18, 2023), https://www.fws.gov/story/2023-07/green-sea-turtle.

wildlife.[427] Take is defined as "collect, hook, hunt, net, shoot, or snare, by any means or device," unless otherwise specified in a provision of the code.[428] The Texas Parks and Wildlife Code also "makes it a criminal offense to kill any fish or wildlife resources classified as threatened or endangered."[429]

Relocation of Endangered Species. To avoid violating the prohibition on taking and killing endangered species, it may be necessary to relocate them from a project area. To do so legally, a "letter of authorization" must be obtained from TPWD allowing the temporary possession of the species for relocation purposes. Letters of authorization can only be issued to "competent persons experienced in the biological sciences" who are either government employees or engaged in paid environmental consultancy. Under a letter of relocation, all animals must be relocated and released into "suitable" habitat "as quickly as possible without placing avoidable stress on the animals."[430]

To obtain a letter of authorization to relocate an aquatic species, the applicant submits to TPWD an Application for Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters (which is the same application form used by the department for fish stocking, shellfish planting, and offshore aquaculture activities).[431] The department may require the applicant to prepare and submit an Aquatic Resource Relocation Plan (ARRP). To be considered complete, the ARRP—which is not explicitly required by state law but has been developed and used by TPWD in connection with activities such as freshwater mussel relocation in connection with dewatering of reservoirs, borrowing plants from other locations for living shoreline projects, and dredging mitigation (see Box F)—should include detailed information, as specified in the agency's *Guidelines for Aquatic Resource Relocation Plans for Fish and Shellfish, Including Freshwater Mussels*.[432]

The ARRP should include, among other things, an identification of any state or federally threatened or endangered species that "may occur" in the project area; an explanation of "what methods will be used to protect these species"; a list of "all shellfish that may become stranded" due to the activity and methods to protect them; and "[m]ethods of collecting and relocating aquatic resources, including the types and sizes of containers used, the mode of transportation, and best management practices (BMPs) to protect aquatic resources." The plan should also "describe how the receiving waters will be protective of aquatic life" and identify decontamination procedures and best management practices to prevent the spread of invasive/exotic species. Additionally, the plan should include a description of how any dead fish and shellfish will be disposed of and documented. To help minimize stressors on relocated fish and shellfish and increase their odds of survival, the TPWD's ARRP guidance packet includes detailed "Fish and Shellfish Handling Protocols."[433]

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[427] TPWD, PROTECTION OF STATE-LISTED SPECIES: TEXAS PARKS AND WILDLIFE DEPARTMENT GUIDELINES, *supra* (emphases added). "Take" is defined in Section 1.101(5) of the Texas Parks and Wildlife Code as follows: "Take," except as otherwise provided by this code, means collect, hook, hunt, net, shoot, or snare, by any means or device, and includes an attempt to take or to pursue in order to take.

[428] Tex. Parks & Wild. § 1.101.

[429]TPWD, GUIDELINES FOR AQUATIC RESOURCE RELOCATION PLANS FOR FISH AND SHELLFISH, INCLUDING FRESHWATER MUSSELS (n.d.), available at: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_lf_t3200_1958_arrp_guidelines_packet.pdf. Once a fish or wildlife species is listed on the federal and/or state list, Texas law provides, "No person may capture, trap, take, or kill, or attempt to capture, trap, take, or kill" it. Tex. Parks & Wild. § 68.015.

[430] 31 TAC 65.173.

[431]TPWD, APPLICATION FOR PERMIT TO INTRODUCE FISH, SHELLFISH OR AQUATIC PLANTS INTO PUBLIC WATERS (July 2019), available at: https://tpwd.texas.gov/publications/pwdforms/media/pwd_1019_t3200_app_permit_stock_public_waters.pdf.

[432] TPWD, GUIDELINES FOR AQUATIC RESOURCE RELOCATION PLANS FOR FISH AND SHELLFISH, INCLUDING FRESHWATER MUSSELS, *supra*. The GLO's *Guide to Living Shorelines in Texas* explains that an ARRP may be required to borrow vegetation. See GLO Living Shorelines Guide, *supra*.

[433]TPWD, GUIDELINES FOR AQUATIC RESOURCE RELOCATION PLANS FOR FISH AND SHELLFISH, INCLUDING FRESHWATER MUSSELS, *supra*.

Restitution and Penalties. Under the Parks and Wildlife Code, any person who "kills, catches, takes, possesses, or injures any fish, shellfish, reptile, amphibian, bird, or animal" in violation of the code (or a proclamation or regulation adopted under the code) is liable to the state for the value of each fish, shellfish, reptile, amphibian, bird, or animal unlawfully killed, caught, taken, possessed, or injured.[434] State regulations require TPWD to "actively seek full restitution for and/or restoration of fish, wildlife and habitat loss occurring as a result of human activities." Restitution and restoration measures may include, but are not limited to, "direct replacement of fish, wildlife and/or habitat destroyed or payments equal to the monetary value of fish, wildlife and their habitat."[435]

A species' classification as endangered or threatened automatically adds $1,000 and $500 to the "recovery value," which is derived using a formula set out in the administrative code.[436] For wildlife, the baseline recovery value will range from $5 to nearly $12,000 based on scoring criteria in the rule; for aquatic life, the recovery value is generally based on commercial value of the fish/shellfish or a related species.[437]

Permit for Dredging Sedimentary Material

If a proposed project will involve dredging or disturbing "sedimentary materials" – i.e., sand, gravel, or marl – in public waters, the applicant must obtain a permit from TPWD.[438]

The regulations allow TPWD to authorize certain activities under the terms of a general permit, including: "(1) pipeline construction; (2) pipeline maintenance; and (3) other activities that necessitate the disturbance or removal of less than 1,000 cubic yards of sedimentary material" (except if the TWPD finds that the disturbance or removal is likely to adversely affect certain natural resources, in which case an individual permit may be required).[439] The regulation includes BMPs for operating under a general permit, which include but are not limited to a requirement that the permittee "make every reasonable effort to conduct the activities authorized hereunder in a manner which minimizes any adverse impact of the work on water quality, fish and wildlife and their habitats, and the natural environment."[440]

> The following activities are exempt from the sand and gravel permit requirement:
>
> "(1) projects to restore or maintain the storage capacity of existing public water supplies;
>
> (2) maintenance projects carried out by public utilities for noncommercial purposes;
>
> (3) public road projects of the Texas Department of Transportation; and
>
> (4) projects resulting in insignificant takings or disturbances of marl, sand, grave, shell or mudshell" as defined in the statute." (31 TAC 69.120.)

[434] Tex. Parks & Wild. § 12.301
[435] 31 TAC 69.19.
[436] 31 TAC 69.23.
[437] 31 TAC 69.24.
[438] 31 TAC 69.101, 104. The PWC has delegated authority to TPWD to issue "uncontested permits for the taking of sedimentary materials from the waters of this state." 31 TAC 69.103.
[439] 31 TAC 69.115. Adverse effects that may necessitate an individual permit include "(1) damage or injuriously affect any island, reef, bar, channel, river, creek, or bayou used for navigation, or any oysters, oyster beds, fish, or wildlife in or near the water used in the operation; (2) change or injuriously affect any current that would affect navigation; (3) significantly and injuriously change the hydrology of the river; (4) significantly increase downstream nonpoint source pollution; and (5) significantly accelerate erosion upstream or downstream from the place where the taking occurs." Tex. Parks & Wild. § 86.004.
[440] Tex. Parks & Wild. at § 69.118.

With the exception of four categories of exempt activities (see right), all other activities that will disturb sediment must be authorized by an individual permit.[441] TPWD's instructions for filling out a Sand and Gravel Permit Application explain that an application must include, among other items:

- A "narrative description of the proposed activity including a description of the methods and equipment to be used. Attach additional sheets as necessary to provide a full description. Design drawings, engineering plans, or restoration plans can be attached, and may be required, depending on the project."
- How much of the water bottom will be disturbed (square feet) and how long the operation is proposed to take.[442]
- A list of "List any State or Federal listed threatened or endangered species known to be or anticipated to be in the project vicinity and whether any might be affected by the project."
- A list of "proposed measures that will be taken to avoid or minimize harm to aquatic and riparian habitat within the project area during, and after, the proposed project."
- A Sedimentation Impact Assessment approved by TPWD (as required by Section 86.003 of the Parks and Wildlife Code).
- Information about the related USACE dredging permit.[443]

State regulations set forth criteria used by TPWD in determining whether to grant or deny a permit. The criteria that *must* be considered are:

> "(1) whether operation under the proposed permit will damage or injuriously affect oysters, oyster beds, or fish-inhabiting waters thereof or adjacent thereto;
>
> (2) whether the operation will damage or injuriously affect any island, reef, bar, channel, river, creek, or bayou used for frequent or occasional navigation, or change or otherwise injuriously affect any current that will affect navigation;
>
> (3) the requirements of industry for such sedimentary materials and the relative value to the State of Texas for commercial use." (31 TAC 69.108.)

[441] 31 TAC 69.115.
[442] The maximum duration of an individual permit is 3 years. The maximum duration of a general permit is one year. 31 TAC 69.110
[443] TWPD, PWD 994A INSTRUCTIONS (JAN. 2020), available at: https://tpwd.texas.gov/landwater/land/private/resource/which_forms/.

The criteria that *may* be considered are:

> "(1) the past performance of the applicant with respect to its obedience and strict observance of the terms of past permits;
>
> (2) whether the applicant shows evidence of financial responsibility;
>
> (3) the ability of the applicant to operate, including its facilities for operation;
>
> (4) the existence of sedimentary materials in the area applied for;
>
> (5) whether the granting of the permit will have a material adverse effect on recreational activity in the general area affected by the permit;
>
> (6) whether the granting of the permit will have a material adverse effect on commercial fishing or the general seafood industry in the general area affected by the permit;
>
> (7) the effect, if any, on navigation in the general area affected by the permit." (31 TAC 69.108.)

Before granting a permit, the TPWD must hear relevant public comment offered by the applicant "or any other interested person."[444] If the applicant or other "person with a justifiable interest" wishes to request a contested case hearing, the request must be received prior to the close of the public comment period.[445]

An individual permit may include conditions set by the department. Among other things, the TPWD must "require that the permittee not interfere with state or federal improvements, navigation, fish life, or riparian rights of landowners in or along any navigable stream or public body of water." If the agency determines that "the use of excessive equipment is causing siltation or other damage to oysters, oyster beds, or fish-inhabiting waters thereof or adjacent thereto," the TPWD may decide to limit the type and quantity of equipment used in certain areas. The permittee will be required to pay the "established price" for sedimentary materials at the time of the monthly report. The department will also require a bond for damages to property, recordkeeping and periodic and final reporting, and other "reasonable requirements of the permittee as required to effectuate the intent of" the sediment management statute. Failure to comply with a permit's terms and conditions and department requirements results in immediate termination of all rights claimed under the permit, and the permit may be cancelled by the TPWD.[446]

Conservation Planning

The Parks and Wildlife Code establishes other conservation planning powers and duties for TPWD, including but not limited to development of a land and water resources conservation and recreation plan and a state wetlands conservation plan.

Land and Water Resources Conservation and Recreation Plan. Pursuant to a legislative mandate in the Parks and Wildlife Code, the TPWD is responsible for developing and periodically updating a comprehensive Land and Water Resources Conservation and Recreation Plan that serves as a strategic plan for TPWD "in achieving its mission to conserve land and water resources and to provide outdoor recreation opportunities for all Texans."[447] Among other things, the planning process requires the department to prepare an inventory of the

[444] 31 TAC 69.106.
[445] 31 TAC 69.107.
[446] 31 TAC 69.111-112.
[447] TPWD, 2015 LAND AND WATER RESOURCES CONSERVATION AND RECREATION PLAN (JAN. 2015), available at: https://tpwd.texas.gov/publications/land-and-water-

state's natural and recreational resources, consider all such resources "in conjunction with each other," set priorities for department activities related to those resources, and coordinate TPWD's activities related to those resources (both "internally and with similar activities of other governmental or nonprofit entities").[448] **It is important to note that this plan does not apply to PSF land administered by the GLO or the SLB,** nor to Permanent University Fund land.[449]

The Land and Water Resources Conservation and Recreation Plan plan was first published in 2002 and was updated most recently in 2015; after requesting public input in spring 2023, the TPWD is in the process of developing the next update.[450] Since the plan approval qualifies as a "major decision" by the PWC, a public hearing is required to approve the plan.[451]

Among other things, the current (2015) plan includes commitments by TPWD to:

- "provide leadership for the promotion and protection of healthy aquatic ecosystems," including by "[working] with public and private entities to integrate planning and management of groundwater, spring, stream, wetland, estuarine and marine ecosystems";
- "maintain, restore, and protect healthy ecosystems on public lands," including by concentrating its "on-the-ground conservation efforts on landscapes of high biological value, such as watersheds, recharge zones, wildlife corridors and migratory bird flyways";
- "foster conservation of healthy ecosystems on private lands"; and
- "anticipate and plan ahead for emerging conservation issues," including by evaluating the "environmental advantages and disadvantages of emerging energy, utility and fuel technologies " and encouraging "development of renewable energy projects which do not adversely affect plant, fish and wildlife communities."[452]

State Wetlands Conservation Plan. In the early 1990s, the Texas legislature directed TPWD and the GLO to jointly "develop and adopt a State Wetlands Conservation Plan for state-owned coastal wetlands," which are defined as wetlands owned by state agencies underlying or adjacent to tidal waters. Among other minimum elements, the law requires the plan to include:

- "a policy framework for achieving a goal of no overall net loss of state-owned coastal wetlands, which framework shall include monitoring and enforcement of the no overall net loss policy; …
- provisions for an inventory of sites for compensatory mitigation, enhancement, restoration, and acquisition priorities;…
- clarification and unification of wetland mitigation policies within the department, the land office, and the Texas Natural Resource Conservation Commission, and other state agencies and subdivisions; …
- development of guidelines and regulations for mitigation done in advance for losses due to possible future development and for which credit may be received when such future development occurs;…

plan#:~:text=The%20Land%20and%20Water%20Resources%20Conservation%20and%20Recreation%20Plan%20(known,to%20provide%20outdoor%20recreation%20opportunities; see also Tex. Parks & Wild. **§** 11.104.

[448] Tex. Parks & Wild. § 11.105.

[449] Tex. Parks & Wild. § 11.106.

[450] TPWD, 2015 LAND AND WATER RESOURCES CONSERVATION AND RECREATION PLAN, *supra*, at 39.

[451] Tex. Parks & Wild. § 11.102, see also Tex. Parks & Wild. § 11.0151.

[452] TPWD, 2015 LAND AND WATER RESOURCES CONSERVATION AND RECREATION PLAN, *supra,* at 39.

- preparations for a long-range navigational dredging and disposal plan, in consultation with the Texas Department of Transportation, port authorities, and navigation districts, including the recommendations set out in the department's Texas Outdoor Recreation Plan; ...
- provisions for scientific studies examining the effects of boat traffic in sensitive coastal wetland areas and for education of the public with regard to the effects of boating in wetlands and proper nondamaging boating techniques; ...
- development of a networking strategy to improve coordination among existing federal and state agencies with respect to coastal wetland permitting, review, and protection responsibilities, including the assessment of current state agency permitting and other processes concerning coastal wetlands; [and]
- any other matter affecting state-owned coastal wetlands." (Tex. Parks & Wild. § 14.002.)

The law required TPWD and GLO to "consult with federal agencies" in developing and adopting the plan, and it called on the Texas Natural Resource Conservation Commission "and other state agencies and local governments" to assist in developing and implementing it.[453] The TPWD was then required to submit the plan to PWC and the SLB for "review, commends, and approval."[454] The law further requires that "[f]ollowing approval of the plan, the Parks and Wildlife Commission and the School Land Board shall adopt rules, policies, standards, and guidelines to implement the plan fully."

According to TPWD, "Originally developed in 1994, the Texas Wetlands Conservation Plan focuses on nonregulatory, voluntary approaches to conserving wetlands."[455] It is unclear whether and how the 1994 plan is consulted or implemented as of 2023.

Box X: Acquisition and Management of "Most Essential" Coastal Wetlands

The Natural Resource Code's coastal public land chapter declares that it is Texas state policy "to protect that coastal wetland which is most essential to the public interest by acquiring fee and lesser interests in the coastal wetland and managing it in a manner that will preserve and protect the productivity and integrity of the land as coastal wetland...."[1] To that end, TPWD is authorized to acquire—by purchase or by condemnation—coastal wetlands that have been certified as "most essential to protection of the public interest" and to manage them "in a manner that will preserve and protect the productivity and integrity of the land as coastal wetland." For these purposes, coastal wetland is defined as wetlands underlying or adjacent to tidal waters in the coastal area.

The law directs TPWD and the GLO to work in coordination to certify such areas according to certain criteria (and to revoke certification made pursuant to the law "when it is in the public interest to do so"). Statutory criteria for certification include but are not limited to "whether the biological, geological, or physical characteristics of the coastal wetland, including the interrelationship of the coastal wetland with other coastal wetland, is essential to the public interest"; the "degree to which the coastal wetland is in danger of being altered, damaged, or destroyed, and the imminence of that danger"; and the cost of acquisition.

The department is required to adopt "reasonable rules and regulations necessary to preserve and protect the productivity and integrity of the land as coastal wetland," including regulations governing "activities conducted on the land in conjunction with mineral exploration, development, and production."

Source: Tex. Nat. Res. § 33.232 et seq.

[453] Tex. Parks & Wild. **§** 14.002.
[454] Id.
[455] TPWD, Texas Parks & Wildlife Department Publications, https://tpwd.texas.gov/landwater/water/habitats/wetland/publications/index.phtml (accessed Aug. 2023).

POLICIES FOR ELECTRICITY GENERATION, TRANSMISSION, AND DISTRIBUTION

In Texas, a commercial entity that generates wind energy on state submerged lands for sale at wholesale would fall within the regulatory definition of "power generating company" (PGC). As described below, the Texas Public Utility Commission (PUC) has limited oversight over these entities under the Public Utility Regulatory Act (PURA), though the PUC does not have a role in PGC siting approval. State policies governing transmission and distribution, which are regulated more closely by the PUC, may influence the types and locations of offshore generation facilities and the routes of electric transmission lines under and over state lands.

Background and Overview

In the contiguous United States, the power grid is divided into three main regions: the Eastern Interconnection, the Western Interconnection, and the Texas system.[456] Thus, with respect to federal and state regulation of electricity markets, Texas is unique among the lower 48 states: because most of Texas is served by a transmission grid without interstate interconnections, the Federal Energy Regulatory Commission (FERC) does not have the same major regulatory role in Texas that it does elsewhere.[457] In the words of scholars David Spence and Darren Bush, "Among restructured electricity markets, Texas's market exists within a uniquely integrated regulatory environment, one in which both wholesale and retail markets are regulated by a single state overseer rather than a mix of federal and local regulators."[458]

Origins of the Texas Electricity Market

Congress passed the Federal Power Act in 1935, which granted the federal entity now known as the Federal Energy Regulatory Commission (FERC) the authority "to regulate the interstate transportation and wholesale sale (i.e., sale for resale) of electric energy, while leaving jurisdiction over intrastate transportation and retail sales (i.e., sale to the ultimate consumer) in the hands of the states."[459] In response, Texas utilities chose to isolate themselves from interstate interconnections in order to avoid federal regulation, first through informal agreements and eventually through the establishment of a voluntary "intrastate power pool" known as the Electric Reliability Council of Texas (ERCOT) in 1970.[460] As described by the Supreme Court of Texas, "ERCOT's primary role was to coordinate electricity transfers among its members and to ensure reliability by maintaining the best possible balance between supply and demand on the Texas grid."[461]

The Texas legislature enacted the first version of the state's Public Utility Regulatory Act (PURA) in 1975, adopting the "regulated-monopoly approach." The 1975 law established the state's Public Utility Commission (PUC) and "empowered it to regulate and supervise the intrastate electricity industry."[462] The original PURA

[456] U.S. EPA, U.S. Grid Regions, https://www.epa.gov/green-power-markets/us-grid-regions (accessed Aug. 2023).
[457] David Spence and Darren Bush, "Why Does ERCOT Have Only One Regulator?" at 12, ELECTRICITY RESTRUCTURING: THE TEXAS STORY, edited by L. Lynne Kiesling and Andrew N. Kleit (American Enterprise Inst. 2009), available at: https://www.aei.org/wp-content/uploads/2014/07/-electricity-restructuring_102315910190.pdf.
[458] Spence and Bush, *supra*, at 9.
[459] Congressional Research Service, THE FEDERAL POWER ACT AND ELECTRICITY MARKETS (Mar. 2017), available at: https://www.everycrsreport.com/reports/R44783.html#_Toc477352014; see generally 16 U.S.C. **§** 824 et seq.
[460] Spence and Bush, *supra*, at 11.
[461] CPS Energy v. Elec. Reliability Council of Texas, No. 22-0056, 2023 WL 4140460, at *20 (Tex. June 23, 2023).
[462] Id.

granted the PUC "traditional state regulatory powers, including ratemaking"; meanwhile, "ERCOT continued to operate as a private coordinating council in this newly regulated market."[463]

Deregulation of the Texas Electricity Market

In 1995, the PURA was amended to deregulate the wholesale market, requiring (among other things) that utilities owning transmission lines make their lines available to wholesale transmission customers.[464] In 1999, the Texas legislature went further, "overhauling" the public utilities code to require electricity market restructuring and prompt Texas's transition to a competitive electricity market[465]: by January 1, 2002, all electric utilities operating in Texas were required to "unbundle" their services into three categories: PGCs; transmission and distribution utilities (TDUs); and retail electricity providers (REPs).[466] The 1999 PURA amendments established the state's keystone "customer choice" policy, which provides that all retail electricity customers (except in municipally owned utility or electric cooperative service areas) not only can but *must* choose their provider.[467] The PUC does not regulate retail electricity rates.

State Regulation of Transmission and Distribution

To enable and maintain a competitive retail market, the PUC must— and does, under PURA— regulate the transmission market. As explained by the Supreme Court of Texas, "To encourage the creation of [PGCs] and retail companies and vigorous competition between them, [the legislature] required the PUC to ensure that all participants in the retail market would have equal access to the Texas power region's grid." [468]

Pursuant to the state's **open access transmission policy**, "All generators, retail providers, municipal utilities, and cooperatives have the ability to use the transmission system."[469]

Transmission rates are regulated at a regional level by the PUC; meanwhile, the "retail providers pay the transmission companies for the right to use the grid and then pass those costs along to their customers by incorporating them into their retail rates."[470] Today, the ERCOT power region—defined in state law as "the area in Texas served by electric utilities, municipally owned utilities, and electric cooperatives that is not synchronously interconnected with electric utilities outside the state"—covers 75% of

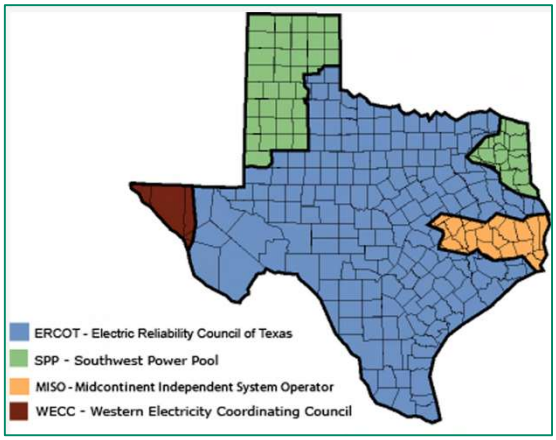

Figure 7: Map of Texas Power Regions (Source: PUC)

[463] Spence and Bush, *supra*, at 11.
[464] CPS Energy v. Elec. Reliability Council of Texas, supra, at *21.
[465] Id.
[466] Tex. Util. § 39.051.
[467] Jim Lazar, Regulatory Assistance Project, ELECTRICITY REGULATION IN THE U.S.: A GUIDE (2d. Ed.) at 196 (2016). ("In most states with retail choice, the incumbent utility or some other identified entity is designated as a default service provider for customers who, through inaction, do not choose another supplier. In Texas, there is no default service provider and all customers must make a choice.") Under the PURA, "Customer choice" means "the freedom of a retail customer to purchase electric services, either individually or through voluntary aggregation with other retail customers, from the provider or providers of the customer's choice and to choose among various fuel types, energy efficiency programs, and renewable power suppliers." Tex. Util. **§** 31.002.
[468] CPS Energy v. Elec. Reliability Council of Texas, supra, at *21.
[469] Jess Totten, "Texas Transmission Policy" at 104, ELECTRICITY RESTRUCTURING: THE TEXAS STORY, edited by L. Lynne Kiesling and Andrew N. Kleit (American Enterprise Inst. 2009); *see generally* Tex. Util. **§** 35.004.
[470] CPS Energy v. Elec. Reliability Council of Texas, *supra*, at *21.

Texas's land area and handles 90% of the state's power load.[471] As of 2022, around 25% of the ERCOT region's energy comes from wind power.[472] The ERCOT region includes over 1,100 power generation units and over 50,000 miles of ERCOT-managed transmission lines.[473]

PUC Oversight of ERCOT

While ERCOT originated as a non-government organization and remains independently governed by a board of directors, it is subject to some oversight by the PUC due to its status as a PUC-certified independent system operator.[474] The PURA requires every "power region" —including the ERCOT region —to establish at least one independent system operator (ISO) to ensure non-discriminatory access to transmission and distribution systems for all buyers and sellers of electricity and to ensure the reliability and adequacy of the regional network. The ISO(s) established in each power region must be certified by the PUC to perform these functions.[475] Upon certification, an ISO becomes "directly responsible and accountable to the commission. The commission has complete authority to oversee and investigate [its] finances, budget, and operations as necessary to ensure the organization's accountability and to ensure that the organization adequately performs the organization's functions and duties."[476] ERCOT was certified as the ISO for the ERCOT power region in 2001.[477]

As summarized by the Supreme Court of Texas:

> "ERCOT, an industry-created, private entity acting as the industry-designated, PUC-certified ISO for the Texas power region, is statutorily empowered to perform uniquely governmental functions as part of the state's electricity-regulation system: overseeing the region's transmission facilities, coordinating its participants' market transactions, transmissions planning, and network reliability, and—most significantly—exercising rule-making authority to govern the participants' operations."[478]

Non-ERCOT Regions in Texas

As shown in Figure 4, areas in Texas that obtain electricity from other, interstate ISOs are the panhandle and northeast corner (Southwest Power Pool), a small segment of the northern Gulf coast and surrounding inland area (Midcontinent Independent System Operator), and the area around El Paso (Western Electricity Coordinating Council).

Oversight and Regulation of PGCs, TDUs, and REPs

The PUC regulates public utilities, including electric utilities, serving the state. In general, public utility laws and PUC rules regulate transmission and distribution services, including the rates that can be charged. The PUC does not regulate retail rates or participate in siting of power generating plants, though retail providers and power generating companies are subject to PUC registration and emergency planning requirements (Box Y).

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[471] ERCOT, ERCOT Organization Backgrounder, https://www.ercot.com/news/mediakit/backgrounder (accessed July 20, 2023).
[472] ERCOT, ERCOT FACT SHEET: JULY 2023, available at: https://www.ercot.com/files/docs/2022/02/08/ERCOT_Fact_Sheet.pdf; see also Emily Foxhall and Alex Ford, "What you need to know about Texas' complex — but important — electricity market reform plan, TEXAS TRIBUNE (Mar. 1, 2023), available at: https://www.texastribune.org/2023/03/01/texas-power-market-public-utility-commission-electricity-credits/. According to the Texas Tribune, "Wind and solar farms typically sell all the electricity they can produce." Id.
[473] ERCOT, ERCOT FACT SHEET, *supra*.
[474] See CPS Energy v. Elec. Reliability Council of Texas, *supra*, at *22.
[475] Tex. Util. § 39.151.
[476] Id.
[477] Spence and Bush, *supra*, at 14.
[478] CPS Energy v. Elec. Reliability Council of Texas, *supra*, at *22.

Power Generation Companies

Under the PURA, an individual or business entity (excluding electric cooperatives) may not generate electricity unless the person is registered with the PUC as a "power generation company" (PGC) or self-generator, in accordance with procedures set out in the law.[479] The statute authorizes the PUC to adopt rules requiring PGC registration with the commission as a condition of doing business in Texas (except for municipally owned utilities).[480]

To register, a PGC must file the following information: "(1) a description of the location of any facility used to generate electricity; (2) a description of the type of services provided; (3) a copy of any information filed with the Federal Energy Regulatory Commission in connection with registration with that commission; and (4) any other information required by commission rule…."[481] Additional information required under PUC rules includes: information about the registrant's corporate parent and affiliates; documentation that the registrant has filed an initial "Emergency Operations Plan" as required by the PUC; and, as applicable, proof of registration with FERC as either a qualified facility or exempt wholesale generator.[482] The registration information must also include an affidavit from an authorized individual attesting that the registrant: generates electricity intended to be sold wholesale; does not own a transmission or distribution facility in Texas (except for any "essential interconnecting facility" or a facility not for public use/otherwise excluded from the definition of "electric utility"); and does not have a certified service area.

Once the registration form is submitted, PUC staff review it for completeness and notify the registrant if the form is "insufficient." (When a registration form is deemed insufficient, the registrant has 20 days to "cure" the deficiencies before the registration request is rejected; however, applicants who receive notice of a rejected registration are allowed to file a new registration form for the same facility.) Upon finding the registration form sufficient, the presiding officer approves the registration and issues a registration number. [483] A registered PGC (or self-generator) is required to renew its registration every other year by resubmitting or updating the information about the facility and its ownership, and submitting a statement that the additional information on file with PUC is current and correct.[484]

Beyond registration with PUC, Texas law requires that PGCs comply with reliability standards adopted by PUC and ERCOT (see, e.g, Box X).[485] Also, to preserve customer choice, no PGC is allowed to own and control over 20% of the installed generation capacity located in, or capable of delivering power to, one of the four "power regions" (as designated by the North American Electric Reliability Council) that cover Texas land.[486] A PGC is allowed to merge, consolidate, or become affiliated with another PGC in the same power region, thought must obtain the approval of the commission before closing if the action would result in one entity owning and

[479] Tex. Util. § 39.351."Power generation company" means a person, including a person who owns or operates a distributed natural gas generation facility, that: (A) generates electricity that is intended to be sold at wholesale, including the owner or operator of electric energy storage equipment or facilities to which Subchapter E, Chapter 35, applies; (B) does not own a transmission or distribution facility in this state other than an essential interconnecting facility, a facility not dedicated to public use, or a facility otherwise excluded from the definition of "electric utility" under this section; and (C) does not have a certificated service area, although its affiliated electric utility or transmission and distribution utility may have a certificated service area. Tex. Util. § 31.002.
[480] Tex. Util. § 17.052.
[481] Tex. Util. § 39.351. The current PGC registration form is available at: https://www.puc.texas.gov/industry/electric/forms/pgc/pgc_form.pdf.
[482] 16 TAC 25.109.
[483] 16 TAC 25.109.
[484] 16 TAC 25.109.
[485] Tex. Util. § 39.351.
[486] Tex. Util. § 39.154; Tex. Util. § 31.002. In the three relevant power regions not entirely within the state—the MRO, WECC, and SERC— the commission may waive or modify the requirement on a finding of good cause.

controlling more than 10 percent of the total installed generation capacity located in, or capable of delivering electricity to, the power region.[487]

The PURA authorizes the PUC to suspend or revoke a PGC's registration for "repeated" or "significant" violations of PURA, its implementing regulations, or ERCOT reliability standards, including "the failure to observe any scheduling, operating, planning, reliability, or settlement protocols established by [ERCOT]."[488]

According to the PUC's online directory, many hundreds of PGCs have registered to do business in Texas as of 2023.[489] The ERCOT region includes over 1,100 power generation units.[490]

In addition to PGCs, there are around 70 registered "self-generators" (many of which are universities or large corporations). Power is also generated by a small number of generation and transmission cooperatives, and some of the state's larger municipally owned utilities own and operate their own generation facilities.

During the 2023 legislative session, Texas lawmakers enacted a law establishing new reliability requirements for PGCs that sign ERCOT interconnection agreements in 2027 and beyond. Under the new law, PGCs will be required to demonstrate to the PUC "the ability of the owner or operator's portfolio to operate or be available to operate when called on for dispatch at or above the seasonal average generation capability during the times of highest reliability risk, as determined by the commission…" or be subject to penalties.[491] As explained by the *Texas Tribune*, **this new requirement "could mean that wind farms, for example, need to have batteries on site or find some other solution to provide power when they can't generate enough."**[492]

Transmission and Distribution Utilities (TDUs)

As explained by the PUC, a transmission and distribution utility (TDU) is the "local wires company" that delivers electricity over poles and wires to consumers and "is responsible for maintaining the poles and wires and responding to emergencies and power outages."[493] Under the PURA and commission rules, the PUC and ERCOT regulate TDU activities to ensure the safety and reliability of Texans' electricity service.

The PURA defines TDU as an individual or business entity (or river authority) that owns or operates for profit "equipment or facilities to transmit or distribute electricity, except for facilities necessary to interconnect a generation facility with the transmission or distribution network…". There currently are five main TDUs serving Texas's competitive retail areas: AEP Texas Central, AEP Texas North, Oncor, Texas-New Mexico Power Company, and Center Point Energy. A customer's TDU is based on the service address. Both Center Point Energy and the Texas New Mexico Power Company have portions of their service areas in and around Galveston.[494] Statewide, there are over 50,000 miles of ERCOT-managed transmission lines.[495]

Facilities not dedicated to public use or that are otherwise excluded from the law's definition of "electric utility" are *not* considered TDUs, including the facilities of municipally owned utilities and electric cooperatives.

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[487] Tex. Util. § 39.158.
[488] Tex. Util. § 39.356.
[489] PUC, Alphabetical List of PGCs, https://www.puc.texas.gov/industry/electric/directories/pgc/alpha_pgc.aspx (accessed Aug. 2023).
[490] ERCOT, ERCOT: We Manage the Flow of Texas' Power Supply, https://www.ercot.com/ (accessed Aug. 2023).
[491] 2023 Tex. Sess. Law Serv. Ch. 410 (H.B. 1500), to be codified at Tex. Util. § 39.1592.
[492] Foxhall et. al, *supra*.
[493] Power to Choose, Glossary, https://powertochoose.org/en-us/Content/Resource/Glossary (accessed Aug. 2023).
[494] See PUC, TEXAS TRANSMISSION AND DISTRIBUTION UTILITIES IN COMPETITIVE RETAIL AREAS (n.d.), available at: https://ftp.puc.texas.gov/public/puct-info/industry/maps/maps/tdumap.pdf.
[495] ERCOT, ERCOT: We Manage the Flow of Texas' Power Supply, https://www.ercot.com/ (accessed Aug. 2023).

According to the PUC, "[m]ost areas of Texas without electric competition are served by municipal utilities or electric cooperatives" that have not opted into the competitive retail market. [496] A coalition of Texas electric cooperatives (TEC) estimates that the state's distribution cooperatives and generation and transmission cooperatives serve "2 million homes and businesses in rural and suburban areas of the state."[497] The TEC reports that the state's 68 distribution cooperatives own and maintain over 306,000 miles of power lines.[498] According to Texas Public Power Association (TPPA), Texas has "72 Municipally Owned Utilities [which] provide power to over 5.1 million Texans, representing approximately 15 percent of the state's population." As TPPA explains, municipally owned utilities typically "own wires/poles/meter infrastructure, acquire power supplies and provide customer service to residential, commercial and industrial customers." For these utilities, rate-setting and other governing policies are the responsibility of local authorities.[499]

Certificate of Convenience and Necessity. **The Texas Utility Code requires that an electric utility obtain a certificate of convenience and necessity (CCN) before installing, operating, or extending a transmission line**.[500] To obtain the certificate, a TDU must apply to the PUC through a process typically involving a contested-case-hearing, during which any interested person (or electric cooperative) may intervene.[501]

When deciding whether to approve a CCN application, the PUC considers factors set out by the state legislature in the state utilities code. The factors are:

> "(1) the adequacy of existing service;
>
> (2) the need for additional services;
>
> (3) the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; and
>
> (4) other factors, such as:
>
> (A) community values;
>
> (B) recreational and park areas;
>
> (C) historical and aesthetic values;
>
> (D) environmental integrity; and
>
> (E) the probable improvement of service or lowering of cost to consumers in the areas if the certificate is granted." (Tex. Util. § 37.056.)

The PUC has up to one year to review a CCN application and make a decision, unless there is good cause for an extension.[502] Commission decisions, including CCN orders, can be challenged in Texas state court under the

[496] Power To Choose, Buying Renewable Power, https://powertochoose.org/en-us/Content/Resource/Selling-Renewable-Power (accessed Aug. 2023).
[497] Texas Electric Cooperatives, About TEC, https://texas-ec.org/about/ (accessed Aug. 2023).
[498] Megan McKoy-Noe, "Where Does My Power Come From?", TEXASCOOPPOWER (Oct. 2010), https://texascooppower.com/where-does-my-power-come-from/#:~:text=These%20local%2C%20member%2Downed%2C,and%20transmission%20cooperatives%20(G%26Ts)
[499] Texas Public Power Association, Members, https://tppa.com/members/ (accessed Aug. 2023).
[500] Tex. Útil. § 37.051.
[501] See Tex. Util. §§ 37.053-56; 16 TAC 22.201-207. See also McMaster v. Pub. Util. Comm'n of Texas, No. 03-11-00571-CV, 2012 WL 3793257, at *1 (Tex. App. Aug. 31, 2012). ("Generally stated, the procedure for obtaining the CCN begins with the submission of an application to the Commission, includes a contested-case hearing, and ends with the Commission's grant or denial of the CCN.")
[502] 16 TAC 25.101.

Texas Administrative Procedure Act; however, the reviewing judge may only reverse or remand a PUC decision on limited grounds—and may not "substitute [the court's] judgment for that of the agency on the weight of the evidence" that was properly considered.[503]

Transmission Route. When approving a CCN application, **the PUC must also approve a route for the transmission line(s).**[504] When evaluating a proposed route, the PUC considers the above-listed statutory factors, as well as additional considerations and factors set out in PUC regulations. Pursuant to the PUC rules, an application for a new transmission line must be routed "to the extent reasonable to moderate the impact on the affected community and landowners unless grid reliability and security dictate otherwise."[505] Unless the TDU and affected landowners[506] come to an agreement on the route, the following factors must be considered in evaluating route alternatives: "(i) whether the routes utilize existing compatible rights-of-way, including the use of vacant positions on existing multiple-circuit transmission lines; (ii) whether the routes parallel existing compatible rights-of-way; (iii) whether the routes parallel property lines or other natural or cultural features; and (iv) whether the routes conform with the policy of prudent avoidance."[507]

The Texas Utilities Code gives TDUs authority to construct, maintain, and operate lines "over, under, across, on, or along a state highway, a county road, a municipal street or alley, or other public property in a municipality," so long as minimum construction standards are followed.[508] Often, however, transmission line projects will require a TDU to obtain new or additional rights-of-way from property owners whose land is traversed by the transmission route.[509] A TDU is allowed to "own, hold, or use" land, a right-of-way, an easement, a franchise, or a structure "as necessary for the purpose of the corporation."[510]

State law gives TDUs the power to condemn and appropriate private land for right-of-way easements.[511] This means that in situations where a landowner does not agree to negotiate an easement with the TDU, the TDU can exercise eminent domain to require the easement(s) it needs for a transmission line.[512]

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[503] Malone v. PUC et al., Memorandum Opinion No. 03-11-00815-CV (Tex. App. 2013). A court may only reverse or remand an agency's decision if the judge finds that the decision violated a statutory or constitutional provision; exceeded the agency's statutory authority; failed to follow lawful procedure; was affected by an error of law; was "not reasonably supported by substantial evidence"; or was "arbitrary or capricious or characterized by abuse of discretion…." Id. (citing Tex. Govt. § 2001.174).

[504] 16 TAC 25.101.

[505] Id.

[506] These include "landowners whose property is crossed by the proposed line, and owners of land that contains a habitable structure within 300 feet of the centerline of a transmission project of 230 kV or less, or within 500 feet of the centerline of a transmission project greater than 230 kV…." Id.

[507] 16 TAC 25.101.

[508] Tex. Util. § 181.042. A utility must: (1) use single pole construction for a line along a highway or county road; (2) construct a transmission line that crosses a highway or road so that the line is at least 22 feet above the surface of the traffic lane; and (3) construct a line that is above a railroad track or railroad siding so that the line is at least 22 feet above the surface of the track or siding. Tex. Util. § 181.045.

[509] For projects requiring new or additional rights-of-way, a TDU is required to provide notice at least 45 days before construction to all landowners with a habitable structure within 300 feet of the centerline of a transmission project of 230 kV or less, or within 500 feet of the centerline of a transmission project greater than 230 kV, as identified on the current county tax rolls. Notice also must be provided to owners of "parks and recreation areas" within 1,000 feet and airports within 10,000 feet of the proposed project's centerline. 16 TAC 25.83.

[510] Tex. Util. § 181.007.

[511] See Tex. Util. § 181.004. The Utilities Code authorizes "electric corporations" to exercise eminent domain; electric corporations are defined to include electric utilities regardless of form or organization, except municipally owned utilities. Tex. Util. § 181.001.

[512] Dennis W. Donley Jr. and Stephanie S. Potter, "Navigating the Winds of Change: Licensing, Registration, and Regulatory Overlay for Wind Farms and Associated Transmission in Texas," 1 TEX. A&M J. REAL PROP. L. 339, 358 (2013), available at: https://scholarship.law.tamu.edu/cgi/viewcontent.cgi?article=1016&context=journal-of-property-law.

Condemnation can be achieved only after making a bona fide offer to purchase the property.[513] When a utility makes an offer to acquire a transmission line right-of-way easement, the Texas Property Code establishes general terms that must be included in the easement agreement. These include, among others, a provision describing whether the easement rights are exclusive, nonexclusive, or otherwise limited under the terms of the agreement; provisions related to access to and damages for construction, repair, maintenance, inspection, operation, etc. of installed facilities; a provision regarding the TDU's obligation to restore the easement area and the property owner's remaining property to their original contours and grades, to the extent reasonably practicable, unless the safety or operational needs of the private entity and the electric facilities would be impaired; and a provision that the terms of the easement agreement will be binding on subsequent owners of the property/utility.[514]

If the utility and the property are unable to agree on the amount of payment or the owner is unwilling to negotiate, the utility may begin a condemnation proceeding by filing a petition in the appropriate court.[515] In a condemnation proceeding, the court determines whether the right of way sought is for a "public use."[516] Texas courts applying the "public use" test have noted that it is the "public character" of a use, not the extent of that use, which is "paramount" in determining whether the right to exercise eminent domain should be granted to a utility.[517] The result is that condemnation might be considered to be for a "public use" even if a transmission line will only serve one customer.[518] Under Texas law, the amount of damages to be received by the property owner is decided by three court-appointed "special commissioners," i.e., disinterested real property owners who reside in the county.[519]

Separation of Retail Electricity Providers from TDUs. In Texas, entities that sell electricity to customers are called Retail Electric Providers (REPs). In accordance with the PURA's unbundling requirement, REPs—which must be certified by the PUC to do business in the state of Texas— do not generate electricity or operate transmission and distribution wires.[520] According to the PUC's directory, there are around 150 certified REPs in Texas.[521] As noted previously, customers in non-competitive retail areas purchase their electricity from electric cooperatives or municipally owned utilities. If Gulf of Mexico OSW power is brought to market in Texas, it will be sold by REPs, electric cooperatives, and/or municipally owned utilities.

[513] See Tex. Prop. § 21.0113.
[514] Id.
[515] Tex. Prop. § 21.012.
[516] See, e.g., City of El Paso v. Ramirez, 431 S.W.3d 630, 641 (Tex. App. 2014). ("The question of what constitutes public use is one for the court.")
[517] Dyer v. Texas Elec. Serv. Co., 680 S.W.2d 883 (Tex. App. 1984), writ refused NRE (1985) (citing Texas Const. Art. 1, § 17).
[518] Dyer v. Texas Elec. Serv. Co., *supra*, at 885. ("Even though the only present use of the tap line for which the property is sought to be condemned is to serve a single customer, Gulf, the condemnation would still be deemed a public use… Arguably, this electric power line would benefit the public by increasing the oil production of Gulf…." (internal citation omitted).)
[519] Tex. Prop. § 21.014.
[520] See Tex. Util. § 39.352.
[521] PUC, Alphabetical Directory of Retail Electric Providers, https://www.puc.texas.gov/industry/electric/directories/rep/alpha_rep.aspx (accessed Aug. 2023).

Box Y: Reliability and Emergency Response Planning

The PURA requires the PUC to adopt and enforce rules "relating to the reliability of the regional electrical network and accounting for the production and delivery of electricity among generators and all other market participants," though the law provides the option of delegating those responsibilities to an ISO (Tex. Util. § 39.151.) Currently, the PUC is enforcing the PURA's requirement that all PGCs, TDUs, electric and municipally owned utilities, electric cooperatives, REPs, and ERCOT each develop, file, and keep current an electric service emergency operations plan (EOP) (see Tex. Util. § 35.0021; 16 TAC 25.53.) A qualifying "emergency" can be declared by the local, state, or federal government or by ERCOT/other applicable reliability coordinator.

Pursuant to PUC rules—which were updated by the commission following the winter storms of 2021—all EOPs must meet specified minimum requirements. These include a communications plan that describes procedures to be used during an emergency for communicating with the media, PUC, the Office of Public Utility Counsel (OPUC), state and local governments, the applicable reliability coordinator, and, as applicable, fuel suppliers, customers, and critical load customers directly served. (Id.) The EOP also must address emergency response supplies, staffing during emergencies, the process for activating the EOP, and dedicated sections discussing how the entity plans to respond to specific types of emergencies, including (as applicable) but not limited to weather emergencies, wildfire, hurricane, pandemics/epidemics, load shed emergencies, and cyber or physical security emergencies.

As noted in the next section, a PGC must file its EOP with the PUC by the time of registration with the commission; if operating within the ERCOT power region, a PGC must also provide a copy of the EOP to ERCOT within ten days of registration approval. Each year before March 15, the entity must either file an EOP update or attest that no material changes have been made. Additionally, an entity must conduct or participate in at least one emergency response drill each calendar year and revise the EOP as needed based on the drill's effectiveness.

The PUC has taken its responsibility to enforce the EOP requirement seriously. For instance, in 2023, the PUC imposed a $250,000 administrative fine on an entity that had filed its EOP one week late.

ERCOT's role in enforcement is to inspect generation assets in its power region for compliance with the reliability standards and report any violations to the PUC (having given the owner of the generation asset a reasonable time to remedy any violation discovered during the inspection). When a PGC or other generation asset experiences repeated or major weather-related service interruptions, the PUC can require the entity to commission an independent assessment and implement appropriate recommendations.

Sources: Tex. Util. §§ 35.0021, 39.357; Notice of Violation by Cotton Plains Wind I LLC for Violations of 16 Tac S 25.55 & Ercot Nodal Protocols S 3.21(3), Concerning Winter Weather Emergency Preparedness Reporting Requirements, No. 52926, 2023 WL 2181972, at 1 (Feb. 16, 2023).

STATE INCENTIVES FOR RENEWABLE ENERGY PRODUCTION AND USE

In the 2023 legislative session, Texas lawmakers repealed various Texas Utilities Code provisions establishing or related to renewable energy incentives. Effective September 1, 2023, these amendments will curtail or eliminate the authorities and programs discussed in this section. However, the former incentives described below have been credited in large part for Texas's current position as a renewable energy leader and provide important background and context for understanding Texas's renewable energy framework moving forward.

Renewable Portfolio Standards and Renewable Energy Credits

Renewable portfolio standards (RPS) are policies requiring or encouraging electricity suppliers to provide their customers with a minimum share of electricity from renewable resources. Since Iowa established the first statewide RPS, over half the states have followed suit, establishing renewable or clean energy requirements.[522]

Statewide RPS: 1999-2023

In 1999, Texas adopted its first RPS to "encourage the development, construction, and operation of new renewable energy projects at those sites in this state that have the greatest economic potential for capture and development of this state's environmentally beneficial renewable resources."[523] The initial statewide goal was to add 2,000 megawatts of renewable generating capacity by 2009. After the first target was surpassed several years early, in 2005, the state legislature increased the statewide target to 5,880 MW by 2015 and 10,000 MW by 2025. By 2009, Texas exceeded the 10,000 MW target.[524]

The RPS law authorized the PUC to adopt rules establishing minimum annual renewable energy requirements for each retail electric provider, municipally owned utility, and electric cooperative.[525] As an alternative compliance pathway, the 1999 law also directed the PUC to establish a renewable energy credits trading program, which would allow providers that did not satisfy their annual requirements by directly owning or purchasing renewable generation capacity to purchase and hold renewable energy credits in lieu of capacity.[526]

The Texas RPS law was repealed in June 2023.[527]

[522] See NCSL, Renewable Portfolio Standards, https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx (accessed Sept. 2022).
[523] 1999 Tex. Sess. Law Serv. Ch. 405 (S.B. 7), codified at Tex. Util. § 39.904.
[524] Id.; DSIRE, https://programs.dsireusa.org/system/program/detail/182 (accessed Aug. 2023).
[525] Tex. Util. § 39.904.
[526] Id.
[527] 2023 Tex. Sess. Law Serv. Ch. 410 (H.B. 1500).

Local Renewable Energy Goals

Several of Texas's most populous cities and counties—some of which are located along or near the Gulf Coast—continue to pursue renewable energy goals at the local level.

At least two Texas municipalities have established renewable portfolio standards or goals, and both require additional renewable capacity to meet their goals—which could provide an opportunity for new and existing wind energy providers to sell wind-generated power to these cities' municipal utilities. The City of Austin, where the municipally owned utility Austin Energy provides electricity, adopted its first RPS in 1999. After several increases, the current goal is to meet 65% of all energy needs using renewable resources by 2025.[528] According to Austin Energy, as of July 2023, around 55% of the city's energy was generated by renewable resources (wind 17%, solar 34%, biomass 3.5%).[529] The City of San Antonio's municipal electric utility, CPS Energy, set a 20% renewables goal by 2020; as of 2021, CPS reported that renewables made up just 15% of its portfolio.[530]

Texas cities and counties are also committing to use of renewable energy for to power their municipal buildings and operations. As of April 2023, the City of Houston is ranked number one on EPA's list of Top 30 Local Governments using green power. According to EPA, since July 2020, Houston's municipal facilities have been powered by 100% renewable energy, meeting the goal established in the Houston Climate Action Plan five years early. Dallas is ranked second, reportedly using 100% wind for municipal operations. The Dallas Fort Worth Airport (100% solar and wind), the City of Austin (100% wind), and Harris County (90% solar and wind) are ranked fourth through sixth, respectively. Irving, Texas and Denton, Texas are also ranked in EPA's Top 30. [531]

Texas's Competitive Renewable Energy Zone

Transmission infrastructure is expensive to purchase and install. In many cases, the need to develop expensive new transmission capacity for renewable projects leads to a situation that has been described as a chicken-and-egg problem: "wind developers will not build projects where there is no capacity to get their power to market, and governments and utilities will not build transmission lines to regions where there is no existing power generation."[532]

In 2005, to help address this problem, the Texas legislature enacted SB 20, establishing the process for designation of Competitive Renewable Energy Zones (CREZ). The law required the PUC, in consultation with ERCOT, to designate CREZ in areas where the presence of renewable energy resources (e.g., winds) and suitable land area were sufficient to develop generating capacity from renewable energy technologies.[533] The CREZ law also required PUC to consider the "level of financial commitment" –e.g., existing renewable energy resources,

[528]Austin City Council Resolution No. 20140828-157 (1999), available at: https://services.austintexas.gov/edims/document.cfm?id=216608.
[529] Austin Energy, Environment: Renewable Power Generation, https://austinenergy.com/about/environment/renewable-power-generation (accessed Aug. 2023).
[530] CPS Energy, Energy Generation https://www.cpsenergy.com/en/about-us/programs-services/energy-generation.html (accessed Aug. 2023).
[531] U.S. EPA, Green Power Partnership: Meet Our Partners, https://www.epa.gov/greenpower/meet-our-partners?partner=cityofhoustontx (accessed Aug. 2023); see also City of Houston Mayor's Office, PRESS RELEASE: THE CITY OF HOUSTON COMMITS TO 100% RENEWABLE ENERGY: THE CITY IS ESTIMATED TO SEE A $9.3 MILLION REDUCTION IN ITS ANNUAL ELECTRICITY BILL AND AN ESTIMATED TOTAL SAVINGS OF $65 MILLION OVER SEVEN YEARS (Apr. 30, 2020), available at: https://www.houstontx.gov/mayor/press/2020/100-percent-renewable-energy.html.
[532] E.g., R. Ryan Staine, "CREZ II, Coming Soon to a Windy Texas Plain Near You?: Encouraging the Texas Renewable Energy Industry Through Transmission Investment" at 524, TEXAS LAW REVIEW, Vol. 93, Iss. 2 (2014): 521-555.
[533] Tex. Util. § 39.904 (repealed by 2023 Tex. Sess. Law Serv. Ch. 410 (H.B. 1500) (June 9, 2023).

signed or pending interconnection agreements—by generators in an area when determining whether to designate it as a CREZ.[534]

The 2005 bill directed the PUC to "develop a plan" to construct transmission capacity necessary to deliver the electricity generated in the CREZ "in a manner that is most beneficial and cost-effective to the customers"[535]; it also provided PUC authority to streamline the certification of public necessity and convenience for transmission projects intended to serve a CREZ. In another since-repealed provision, the 2005 bill not only authorized but mandated that the PUC require electric and/or transmission utilities to construct (or expand) transmission facilities for the purpose of meeting the state's RPS goal, and provided that such facilities were includable in the rate base as a matter of law.[536] (The PUC retains general discretion under the utilities code to require an electric or transmission/distribution utility to construct or enlarge facilities "to ensure safe and reliable service for the state's electric markets and to reduce transmission constraints within ERCOT in a cost-effective manner where the constraints are such that they are not being resolved through Chapter 37 or the ERCOT transmission planning process."[537])

Despite its successful implementation by the PUC, the CREZ law was repealed in June 2023.

Implementation of the CREZ process involved the following:

- **Designation of CREZ Areas**: In the early stages of CREZ implementation, the PUC "identified four major regions as prime for potential transmission improvements: the Gulf Coast, the McCamey area, central-western Texas, and the Panhandle."[538] In October 2008, after a series of rulemakings, studies, hearings, and stakeholder engagements, the PUC filed a final order approving the commission staff's petition for designation of CREZ.[539] The final order designated five zones—all in the Panhandle and West Texas—as CREZ (and declined to designate over a dozen other areas that had been nominated/considered).[540]
- **Transmission Improvements Plan:** The 2008 final order also presented the PUC's capacity plan to construct necessary transmission improvements. The plan was developed by PUC based on various factors required by law and PUC regulations, which included (among others) cost-effectiveness and benefits to customers; estimated costs of constructing transmission capacity and additional ancillary services; "environmental benefits"; and future expansion capability.[541]

[534] PUC Final Order, infra, at 6.
[535] Tex. Util. § 39.904 (repealed by 2023 Tex. Sess. Law Serv. Ch. 410 (H.B. 1500)).
[536] Tex. Util. § 39.203, repealed by 2023 Tex. Sess. Law Serv. Ch. 410 (H.B. 1500).
[537] Tex. Util. § 39.203.
[538] Staine, *supra*, at 529 (citing ERCOT, ANALYSIS OF TRANSMISSION ALTERNATIVES FOR COMPETITIVE RENEWABLE ENERGY ZONES IN TEXAS at 31 (2006)). According to an ERCOT study, the Gulf Coast region had less wind power generation potential than the other alternatives and required the lowest transmission investment per MW to facilitate bringing wind energy to market. See ERCOT, ANALYSIS OF TRANSMISSION ALTERNATIVES FOR COMPETITIVE RENEWABLE ENERGY ZONES IN TEXAS at 31, 51 (2006).
[539] PUC, ORDER ON COMMISSION STAFF'S PETITION FOR DESIGNATION OF COMPETITIVE RENEWABLE-ENERGY ZONES, Docket No. 33672, (Oct. 7, 2008) (hereinafter "PUC Final Order").
[540] Id at 6.
[541] PUC Final Order, *supra*, at 12-13. These and other factors were considered pursuant to Tex. Util.§ 39.904 and PUC Subst. R. 25.174(c)(3). The order indicated that the amount of wind-generated electricity produced by each transmission plan was used as a loose proxy for environmental benefits, since "greater amounts of wind-generated energy also bring greater air quality and water conservation benefits as they r3educe the reliance on other generation sources." Id. at 21.

- **Construction of Transmission Projects:** The plan chosen in the 2008 final order would add over 11,000 MW of new transmission capacity at a cost of around $7 billion dollars.[542] The PUC assigned various transmission and distribution utilities to construct CREZ projects in 2009. [543] As of January 2014, the CREZ transmission projects—made up of 3,600 "right-of-way miles" of 345 kV line and additional 138 kV line—were complete.[544] Pursuant to the PURA and PUC policy, these transmission lines are "open access" and are not limited to wind-generated power.

The CREZ is widely considered a great success. However, rather than pursuing another iteration of the CREZ process—e.g., to promote renewable generation in the coastal region—**in 2023, Texas repealed the CREZ law.** Moreover, H.B. 1500 directs PUC to set, and update every five years, a fixed "allowance" for the costs that can be incurred by TDUs to connect PGCs to the grid. Under the new law, any costs exceeding a TDU's allowance must be borne by the PGC(s) connecting through the new transmission infrastructure. According to the *Texas Tribune*, this allowance provision "was designed to target companies such as wind and solar power producers that build on inexpensive, remote land."[545]

Integrated Resource Planning

Integrated resource planning (IRP) generally involves development by utilities of long-term resource plans, which include both supply and demand-side resources and consider transmission needs, in order to satisfy the utility's load requirements. In Texas, IRP was required during the four-year period from 1995-1999. In 1999, when the Texas legislature overhauled the PURA to require market restructuring and transition the state to a competitive retail market, the IRP requirement no longer fit the market framework and the requirement was repealed.

According to PUC, the brief IRP requirement did reveal a consumer preference for renewable resources. As a mandatory part of the IRP process, utilities engaged with customers to determine their "values and preferences." In Texas, "Customers participating in this process indicated a preference for better air quality and a willingness to purchase electricity that was generated by renewable energy resources that improve air quality in their communities." According to the PUC, the customer preferences expressed during the IRP process in the 1990s helped bring about the state's 1999 renewable portfolio standard. [546]

[542] U.S. Energy Information Agency, "Fewer wind curtailments and negative power prices seen in Texas after major grid expansion," TODAY IN ENERGY (June 24, 2014), https://www.eia.gov/todayinenergy/detail.php?id=16831.
[543] PUC, PUBLIC UTILITY COMMISSION OF TEXAS SELF-EVALUATION REPORT: A REPORT TO THE TEXAS SUNSET ADVISORY COMMISSION at 24 (Sept. 2021), available at: https://www.puc.texas.gov/agency/resources/reports/sunset/serfinalreport090121.pdf; see also PUC, In Re Improvements Necessary to Deliver Renewable Energy from Competitive Renewable-Energy Zones, Docket No. 35665 (Mar. 30, 2009). A year earlier, the PUC had amended its rules to "establish a process for entities interested in constructing and operating certain transmission improvements to submit expressions of interest to the Commission and for the Commission to select the entity or entities responsible for constructing the transmission improvements, and address any requirements deemed appropriate by the Commission to ensure that such entities complete the ordered improvements in a timely and cost-effective manner." Id.
[544] Warren Lasher, ERCOT, THE COMPETITIVE RENEWABLE ENERGY ZONES PROCESS at 8 (Aug. 11, 2014), available at: https://www.energy.gov/sites/prod/files/2014/08/f18/c_lasher_qer_santafe_presentation.pdf.
[545] Foxhall et. al, *supra*.
[546] PUC Subst. R. §25.173.

CONCLUSIONS

Notable or Unique Features of Texas's Legal and Regulatory Framework for OSW

While no two states' laws, regulations, or coastal programs are identical, there are certain cross-cutting features and trends that national practitioners routinely encounter—and may anticipate—in connection with ocean and coastal laws and regulations. In Texas, however, certain features of the state's geography and framework are unique or otherwise stand out among the rest of the states, including other coastal states where OSW has been or is being pursued or considered.

These features include, but are not necessarily limited to:

- Texas leads the U.S. in onshore wind production, owing in significant part to the state renewable energy policies that were in place for much of the twenty-first century. However, following the widespread power outages caused by a 2021 winter storm and pushback against renewable generators, state lawmakers have rolled back preexisting state incentives for utility-scale wind production and enacted policies likely to make new wind-generated power more expensive, effective September 2023.

- Texas's jurisdiction over the Gulf of Mexico and its submerged lands extends over 10 miles into the Gulf, which is around three times farther than almost all other states. Combined with Texas's long coastline (which ranks sixth overall and fourth among contiguous states), this means the area of the Gulf under Texas's direct management and control consists of millions of acres.

- Texas's coastline is eroding comparatively quickly, at an average rate of around 4 feet per year.

- While a large percentage of Texas shoreline is undeveloped[547], the coastline around cities and ports (e.g., Houston and Galveston) is more densely crowded by existing users than some other states' coastlines, and the coast is only getting more crowded. According to the Texas Comptroller, the average population density per square mile of Texas is 108; in the 13 coastal counties, there are 580 people per square mile.[548] Oil and gas development in the Gulf of Mexico is responsible for 97% of U.S. offshore oil and gas production[549], and much of the related infrastructure is located in Texas's coastal zone. The TCMP reports that 21 of the state's 51 total oil and gas facilities along the coast were established in the five-year period between 2015 and 2020.[550] While the ethos of an industrial coast, existing linear infrastructure, and port facilities may be helpful in facilitating fast growth of a new offshore industry, the network of existing leases and physical infrastructure related to oil, gas, and other mineral/chemical industries, together with the increasing number of private landowners in the coastal zone, are likely to make siting decisions relatively complicated.

[547] See TCMP 309 Assessment 2021-2015, *supra*, at 92.
[548] Texas Comptroller of Public Accounts, The Gulf Coast Region: 2018 Regional Report, https://comptroller.texas.gov/economy/economic-data/regions/2018/gulf-coast.php (accessed Aug. 2023).
[549] BOEM, Oil and Gas – Gulf of Mexico, https://www.boem.gov/regions/gulf-mexico-ocs-region/oil-and-gas-gulf-mexico (accessed Aug. 2023).
[550] See TCMP 309 Assessment 2021-2015, *supra*.

- Texas law allows coastal municipalities to assert "extraterritorial jurisdiction" over submerged lands under the Gulf of Mexico, which has tax implications for companies siting their operations in Texas's state waters.

- Texas's NOAA-approved Coastal Management Program has been updated twice in the program's history – i.e., much less frequently than most other states with active or nascent offshore renewable energy industries.

- Texas has made a notable commitment to permitting assistance, including through the Permit Service Center (PSC). Housed within the GLO, the PSC was established to help streamline the environmental permitting process for projects in the coastal area.

- Texas's deregulated, competitive state energy framework involves minimal oversight by the PUC of power generating companies, which are required by law to be separate from transmission and distribution utilities and retail electricity providers. The registration process for PGCs is straightforward, and a certificate of public convenience and necessity is not required for a new wind power facility in Texas.

- Most of Texas is served by an intrastate power grid, where transmission activities are not subject to regulation by FERC.

- Texas does not currently have a statewide Renewable Portfolio Standard. (While over half of U.S. states do have an RPS, none of the other Gulf Coast states have one in place, either.)

- Texas's GLO has accumulated and organized a vast amount of data on its coastal resources for public use. The agency maintains a set of GIS web tools, including the Land and Lease Mapping Viewer, which can be used by project proponents to help guide siting plans and avoid potential land use conflicts. Similarly, state-owned tracts of submerged lands in the Gulf of Mexico and Texas's bays are assigned "resource management codes" to provide guidance to prospective developers. These codes provide "guidelines for activities within each tract," in an effort to "enhance protection of sensitive natural resources by providing recommendations for minimizing adverse impacts from mineral exploration and development activities."

- Like other states, Texas applies federal consistency to major federal actions triggering an environmental impact statement under the National Environmental Policy Act (NEPA). However, the relevant Texas enforceable policy further provides that for such actions: "an agency or subdivision shall *avoid and otherwise minimize the cumulative adverse effects* to coastal natural resource areas of each of its major actions relating to the activity."

Opportunities to Strengthen Texas's OSW Framework

The preceding sections of this report include many observations and suggestions related to Texas's existing legal and regulatory framework for OSW, all of which are not reiterated or summarized here. However, it is important to highlight that as prospects for OSW energy production in the Gulf of Mexico continue to gain momentum, Texas stakeholders may wish to consider, and evaluate the potential benefits and feasibility of, *at least* the following types of state-level measures:

1. Enact legislation or by executive order or other means establish a unified administrative process to coordinate the development and review of wind energy facilities in state and federal coastal waters, including siting standards for OSW infrastructure in state waters.

Under current procedures, responsibilities related to environmental review at the state level are divided among several agencies – e.g., the GLO is charged with state and federal consistency reviews; the GLO and SLB are charged with administering leases of public lands and water bottoms; TPWD issues additional permits for disturbing water bottoms; TCEQ handles water pollution permits and certifications. Given the significant tradeoffs at stake from siting of energy facilities and transmission facilities (and supporting services) in both state and federal waters, and the competing uses for Texas's marine and estuarine waters and onshore areas, it may be desirable to establish a primary coordinator to get ahead of anticipated offshore wind energy proposals. Many of the obstacles to offshore alternative energy development encountered thus far in other states have come from the lack of a straightforward path for planning, evaluation, and permit coordination. Thus, even in states supportive of OSW development, the review process has been uncertain.

Texas has left wind power facility siting in the hands of local governments, but the increasing prospect of OSW and related infrastructure on state trust lands (PSF lands) in the Gulf of Mexico is cause to reconsider siting regulation at the state level. If Texas desires to promote efficiency and facilitate appropriate proposals (where offshore energy is desired or acceptable), a state agency with jurisdiction and expertise should be empowered to influence development proposals by setting criteria, conditions, and locations.

In general, a robust siting framework for offshore wind energy development will address facility location, visual impacts, safety requirements, setbacks from other structures and use areas, wildlife and habitat protections, noise, electromagnetic interference, decommissioning, and erosion, among other issues important to the state or locality.[551] A lack of clear, direct authority to comprehensively address these aspects of energy facilities in Texas coastal waters has been noted as a challenge by the TCMP. In their most recent five-year program assessment, the program wrote,

> "In regard to siting of energy facilities, different agencies can address siting through public hearings (PUC, TCEQ, Texas RRC, ERCOT), but the ability of the [GLO] or any agency to deny a project based on siting is in question. In Texas, specifically for renewable energy projects, the issue of siting is of concern…. Clear siting authority for both onshore and offshore facilities would be beneficial."

In adopting a siting framework for offshore wind energy, Texas policymakers need not start from scratch. The criteria for the grant of coastal easements by the SLB, the plan of operations requirements for and other standards applicable to offshore geothermal facilities, and the geophysical and geochemical operational guidelines are just a few examples of Texas agencies developing and adopting offshore siting standards akin to the standards needed for OSW. Any framework should focus particular attention on wetland impacts, since the "counties of Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson, and Orange, collectively have experienced some of the largest wetland losses in the state… [and] much of the wetland changes are due to development."[552]

In addition to guarding against adverse impacts, a proactive planning regime for submerged lands in the Gulf of Mexico could help make reviewing proposals for use of submerged lands more efficient, rather than requiring

[551] See generally ELI, SITING WIND FACILITIES ON STATE-OWNED LAND AND WATERS (2011), available at: https://www.eli.org/research-report/state-enabling-legislation-commercial-scale-wind-power-siting-and-local-government.
[552] TCMP 309 Assessment 2021-2015, *supra*.

agency staff to work individually with each applicant to navigate the maze of existing, and potentially conflicting, uses. Through tools like the Land and Lease Viewer, the resource code system, and the Data Collector App User Guide for Storm Debris and Derelict Structure Assessments, the state has already compiled and organized much of, if not all, the data needed to clearly identify potential corridors, areas categorically off limits, and/or suitable conditions for OSW facilities. By using these existing tools and leveraging the broad role of the state's permitting assistance bodies, there may be opportunities to implement useful elements of a comprehensive ocean planning regime without running afoul of the prohibition on special area management planning.

2. Update certain TCMP policies to better reflect new state authorities, current conditions, emerging threats, and modern policy priorities.

As a whole, the TCMP policies are detailed and comprehensive, providing substantial protections to ocean and coastal resources. However, the TCMP policies have not been substantively amended for almost 20 years, and one or more of these sets of policies might be updated to better encompass emerging issues and reflect the state's modern policy priorities. For example, none of the current electrical generation and transmission facility policies are tailored to renewable energy resources like wind and solar, which have grown exponentially in the state since the policy's adoption in 2004 and are addressed in various state statutes and regulations. Furthermore, despite the PUC's broad discretion to consider environmental integrity, historical and aesthetic values, recreational and park areas, and community values when issuing a CCN, the EGTF policies only address transmission facilities in one subsection, in the limited context of coastal barrier resources. Even those provisions could be strengthened, e.g., to require directional drilling where practicable –which is already required by the TCMP policies governing oil and gas development. And while the EGTF policies include a siting standard for electric generating facilities (must "where practicable" be located at previously developed sites), the PUC's issuance of registrations to PGCs is not referenced in the policy alongside issuance of CCNs as an agency action subject to the state consistency requirement. Notwithstanding the state's general policy choice not to regulate siting of power generators, it would be reasonable for the TCMP to use its policies to exercise some influence over PGC siting in the coastal zone (or at least in or affecting critical areas). As another example, the Policies for Construction of Waterfront Facilities and Other Structures on Submerged Lands, might be updated to unambiguously incorporate the authority of the 2013 law that prohibits uprooting seagrass along the Gulf coast.

The Land Commissioner/GLO have clear authority to adopt updates to the TCMP policies. Under the state's coastal coordination regulations, the Land Commissioner is responsible for studying and reviewing coastal problems of state concern. This review includes "examination of the current status and future trends of CNRAs; examination of conflicts between competing uses of CNRAs; and examination of policy issues with respect to local, state, or national interests and concerns related to CNRAs." The commissioner "will examine alternative regulatory and other management approaches to these problems, identify data collection and research needs, and foster public education and participation" (31 TAC 26.1.). With respect to updating policies, the commissioner "will examine the goals and policies … annually to review the effectiveness of the program and will propose revisions to the goals and policies, as necessary" (31 TAC 26.1).

3. Update the NOAA-approved Texas Coastal Management Program to reflect emerging coastal industries and modern policy priorities.

3a. Texas should update its list of identified federal actions and permits to include additional offshore activities.

Federal license or permit approvals for activities by non-federal entities (15 CFR Part 930, Subparts D & E) require federal consistency review for activities *within* the coastal zone only if the licenses and permits are listed on the state's approved list; and for approvals of federal license and permit activities *outside* the coastal zone only if they are on the list *and* within a geographic location description (see 1b). Otherwise, the state must seek case-by-case NOAA-OCM approval through an Unlisted Activity Request, which gives the state a limited timeframe to prepare information and analysis needed to justify an assertion of coastal effects.

The current list includes a broad category of "permits under 43 United States Code Annotated, §1340, in OCS waters; and (ii) rights-of-way under 43 United States Code Annotated, §1334(e), in OCS waters." However, in addition to potential issues with the qualifying language for this listing (see 1b), NOAA-OCM has recently indicated that a more specific reference to *renewable* energy activities is required for purposes of the federal permit and license list.[553] Rhode Island's list could provide a useful model: among other Department of Interior permits and licenses, it lists "Issuance or approval of leases, permits, easements, rights-of-way, exploration plans, development plans, production plans, and other authorizations, as appropriate, pursuant to [OCSLA and the EPA of 2005, with citations] for the construction, maintenance, and/or support activities related to OCS energy development."[554] Importantly, the Rhode Island list specifically identifies two subcategories of such activities: "Any offshore wind facilities of a permanent nature, regardless of size" and "Underwater cables." Once approved by NOAA-OCM, this type of language signals unambiguously to applicants that Louisiana intends to conduct routine federal consistency reviews for these activities.

3b. The TCMP can consider developing updated Geographic Location Descriptions to facilitate reviews of OSW projects in federal waters and/or interstate consistency review.

Texas does not have any explicit "GLDs" on its NOAA-approved list of federal license and permit activities.[555] The Texas list does identify a subset of "federal actions outside the CMP boundary but within OCS waters, or on excluded federal land located within the coastal zone, that may adversely affect CNRAs." However, it is unclear whether NOAA-OCM would consider this broad language sufficient to constitute a GLD by today's standards, which include demonstration of a rigorous "coastal effects" determination for specified activity types and locations. For example, Oregon's 2015 submission for approval of a GLD for marine renewable energy development on the OCS included nearly 100 pages of data and analysis.[556]

Between the vague language and the failure to specifically articulate renewable activities, it is safest to assume that any federal license or permit activity taking place outside Texas's coastal zone—even those described on the list as "federal actions outside the CMP boundary but within OCS waters…that may adversely affect CNRAs"—will require the GLO to request and receive approval for an Unlisted Activity Review (unless the applicant voluntarily agrees to submit a CC), or to update the TCMP list. Either way, the TCMP might consider beginning discussions with NOAA-OCM about any procedural steps that may be necessary to assure federal consistency review

[553] As of 2021, NOAA-OCM maintains that to be entitled to routine consistency review of renewable energy activities on the OCS, a state CMP must list *the specific OCSLA authorization*. See generally David Kaiser, NOAA-OCM, Presentation to the Intergovernmental Renewable Energy Task Force for the Gulf of Mexico Re: CZMA Review of Offshore Renewable Energy Projects (June 2021), available at: https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/NOAA-National-Ocean-Service-CZMA-David-Kaiser.pdf.

[554] NOAA-OCM, RHODE ISLAND'S LISTED FEDERAL ACTIONS, available at: https://coast.noaa.gov/data/czm/consistency/media/ri.pdf.

[555] See 31 TAC 30.12. The Texas list is also available in easy-to-read form through NOAA-OCM at https://coast.noaa.gov/data/czm/consistency/media/tx.pdf.

[556] See Oregon Coastal Management Program, STATE OF OREGON GEOGRAPHIC LOCATION DESCRIPTION: ANALYSIS OF REASONABLY FORESEEABLE EFFECTS OF FEDERAL ACTIONS RELATED TO MARINE RENEWABLE ENERGY PROJECTS ON RESOURCES AND USES OCCURRING WITHIN THE FEDERAL WATERS OF THE OREGON OCEAN STEWARDSHIP AREA (n.d.), available at: https://www.oregon.gov/lcd/OCMP/Documents/OCMP_MarineRenewable_GLD_final.pdf.

authority in the near future—i.e., well in advance of BOEM's consideration of a proposed COP for a Gulf of Mexico lease area.

To the extent TCMP is concerned that potential OSW-related activities in *Louisiana* state waters would adversely impact Texas's coastal area, a GLD for those areas could also be sought to enable what is known as "interstate consistency review" – review by State A of federally approved activities taking place within State B's coastal zone.

3c. The TCMP can submit necessary "housekeeping" program changes so enforceable policies cannot be challenged based on failure to update or other "enforceability" defects.

One important housekeeping item is to avoid running afoul of NOAA's policy against incorporation by reference by independently incorporating significant referenced materials as enforceable policies, or by amending the coastal regulations to explicitly include their contents (and submitting the amendments as program changes.) For example, the Development in Critical Areas policy, which is key for protecting high value habitats, incorporates by reference requirements from the federal Endangered Species Act and the Marine Protection, Research and Sanctuaries Act of 1972. As another example, the Policies on State Parks, Wildlife Management Areas or Preserves purport to incorporate by reference an entire chapter of the Texas Natural Resource Code. It is not clear whether Texas would be able to rely on existing, previously approved TCMP policies that incorporate other state and federal policies by reference as enforceable policies during a contentious federal consistency process. To err on the side of caution, GLO might consider submitting to NOAA-OCM the most important incorporated definitions, classifications, maps, and policies for incorporation as EPs or updating the language of the TCMP regulations with full excerpts of the referenced policies' relevant language. Other housekeeping updates could include submitting the current language in, and citations for, the TCMP policy regulations, which were amended in 2022 and 2023.

There also have been relevant regulatory developments since the TCMP was approved which are reflected in state laws and regulations outside the TCMP regulations. As mentioned in (1) above, for example, the 2013 law making it illegal to uproot sea grasses with a boat propeller along the entire Gulf Coast is codified at Texas Parks and Wildlife Code, Section 66.024. This provision could be added in an update, if the TCMP were authorized and willing to incorporate EPs based on other state laws. (The TCMP has submitted other areas of state law for incorporation into the program, but they have not been approved for incorporation as enforceable policies.[557]) Alternatively, the explicit prohibition on uprooting seagrass could be added to one or more of the regulations codifying the TCMP policies (and then submitted to NOAA for approval as a program change).

4. Clarify application of public lands authorities to wind energy leases.

Given that the state owns so much of the submerged land in Texas, the Land Commissioner should clarify the statutory basis under which the state may consider granting leases and easements over public lands for transmission. Short of a unified administrative approach or siting guidelines, this would help applicants, stakeholders, and the public better prepare to engage productively during the leasing process.

5. Consider developing bird/bat/wildlife protection standards together with neighboring states.

Texas's laws and policies for protection of wildlife will be relevant to offshore energy and will be used in commenting on EISs and for federal consistency. However, such standards will be more useful and likely to be

[557] See NOAA-OCM, Program Change Details: TX-2013-1, https://coast.noaa.gov/czmprogramchange/#/public/change-view/1132 (accessed Aug. 2023).

deferred to by federal agencies if they reflect a consistent approach to the regional wildlife resource, especially given the western Gulf of Mexico's central location along the Central Flyway (and potential for some birds traveling the Mississippi and Atlantic flyways to follow the Texas Gulf Coast). Rather than have separate standards and approaches, the states in this region might coordinate and insist on a common approach given the significance of the species and linkage of their habitats.

6. Improve coordination with counties/municipalities.

Offshore wind siting, and especially the bringing ashore of transmission, can be affected by local land use decisions that may or may not be consistent with state objectives. Renewable offshore energy projects are likely to be affected by land use plans to the extent that they may affect where transmission lines come ashore, and where support facilities may be placed. The GLO, CCAC, or another entity might check limitations and inconsistencies of local land use plans with state objectives and consider whether the CCAC should specify goals relevant to offshore energy and transmission.

Appendix I: Definitions of CNRA Types

Source: Tex. Nat. Res. Code, Sec. 33.203.

(1) **"Coastal natural resource areas"** means:

(A) coastal barriers;

(B) coastal historic areas;

(C) coastal preserves;

(D) coastal shore areas;

(E) coastal wetlands;

(F) critical dune areas;

(G) critical erosion areas;

(H) gulf beaches;

(I) hard substrate reefs;

(J) oyster reefs;

(K) submerged land;

(L) special hazard areas;

(M) submerged aquatic vegetation;

(N) tidal sand or mud flats;

(O) water of the open Gulf of Mexico; and

(P) water under tidal influence.

(2) **"Coastal barrier"** means an undeveloped area on a barrier island, peninsula, or other protected area, as designated by United States Fish and Wildlife Service maps.

(3) "Coastal historic area" means a site that is specially identified in rules adopted by the Texas Historical Commission or the Antiquities Committee as being coastal in character and that is:

(A) a site on the National Register of Historic Places, designated under 16 U.S.C. Section 470a and 36 CFR Part 63, Chapter 1; or

(B) a state archaeological landmark, as defined by Subchapter D, Chapter 191.

(4) **"Coastal preserve"** means any land, including a park or wildlife management area, that is owned by the state and that is:

(A) subject to Chapter 26, Parks and Wildlife Code, because it is a park, recreation area, scientific area, wildlife refuge, or historic site; and

(B) designated by the Parks and Wildlife Commission as being coastal in character.

(5) **"Coastal shore area"** means an area within 100 feet landward of the highwater mark on submerged land.

(6) **"Coastal waters"** means waters under tidal influence and waters of the open Gulf of Mexico.

(7) **"Coastal wetlands"** means wetlands, as the term is defined by Section 11.502, Water Code, located:

(A) seaward of the coastal facility designation line established by rules adopted under Chapter 40;

(B) within rivers and streams, to the extent of tidal influence, as shown on the Texas Natural Resource Conservation Commission's stream segment maps, excluding the portion of the Trinity River located in Liberty County;

(C) within one mile of the mean high tide of the portion of river and stream described by Paragraph (B), except as provided by Paragraphs (D) and (E);

(D) in the case of wetlands bordering the portion of the Trinity River to which Paragraph (B) applies:

(i) within the area located between the mean high tide line on the western shoreline of that portion of the river and Farm-to-Market Road 565 and Farm-to-Market Road 1409; or

(ii) within the area located between the mean high tide line on the eastern shoreline of that portion of the river and Farm-to-Market Road 563; or

(E) in the case of wetlands bordering the portion of the Neches River described by Paragraph (B):

(i) within one mile from the mean high tide line of the western shoreline of that portion of the river described by Paragraph (B); or

(ii) within the area located between the mean high tide line on the eastern shoreline of that portion of the river and Farm-to-Market Road 105.

(8) **"Critical area"** means a coastal wetland, an oyster reef, a hard substrate reef, submerged aquatic vegetation, or a tidal sand or mud flat.

(9) **"Critical dune area"** means a protected sand dune complex on the Gulf shoreline within 1,000 feet of mean high tide designated by the land commissioner under Section 63.121.

(10) **"Critical erosion area"** has the meaning assigned to the term "critical coastal erosion area" by Section 33.601(4).

(11) **"Gulf beach"** means a beach bordering the Gulf of Mexico that is:

(A) located inland from the mean low tide line to the natural line of vegetation bordering the seaward shore of the Gulf of Mexico; or

(B) part of a contiguous beach area to which the public has a right of use or easement:

(i) continuously held by the public; or

(ii) acquired by the public by prescription, dedication, or estoppel.

(12) **"Hard substrate reef"** means a naturally occurring hard substrate formation, including a rock outcrop or serpulid worm reef, living or dead, in an intertidal or subtidal area.

(13) **"Oyster reef"** means a natural or artificial formation that is:

(A) composed of oyster shell, live oysters, and other living or dead organisms;

(B) discrete, contiguous, and clearly distinguishable from scattered oyster shell or oysters; and

(C) located in an intertidal or subtidal area.

(14) **"Special hazard area"** means an area designated under 42 U.S.C. Section 4001 et seq. as having special flood, mudslide or mudflow, or flood-related erosion hazards and shown on a flood hazard boundary map or flood insurance rate map as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M, or E.

(15) **"Submerged land"** means land located under waters under tidal influence or under waters of the open Gulf of Mexico, without regard to whether the land is owned by the state or a person other than the state.

(16) **"Submerged aquatic vegetation"** means rooted aquatic vegetation growing in permanently inundated areas in estuarine and marine systems.

(17) **"Tidal sand or mud flat"** means a silt, clay, or sand substrate, without regard to whether it is vegetated by algal mats, that occur in intertidal areas and that are regularly or intermittently exposed and flooded by tides, including tides induced by weather.

(18) **"Water of the open Gulf of Mexico"** means water in this state, as defined by Section 26.001(5), Water Code, that is part of the open water of the Gulf of Mexico and that is within the territorial limits of the state.

(19) **"Water under tidal influence"** means water in this state, as defined by Section 26.001(5), Water Code, that is subject to tidal influence according to the Texas Natural Resource Conservation Commission's stream segment map. The term includes coastal wetlands.

Appendix II: Federal Consistency Requirements for OCS Renewable Energy Activities				
OCS ACTIVITY	**TYPE OF "FEDERAL ACTION"**	**CZMA REQUIREMENTS**	**BOEM REQUIREMENT**	**PROCEDURAL SUMMARY**
Competitively Issued Instruments				
Commercial Lease Sale	Direct federal activity (by BOEM)	15 CFR Part 930, Subpart C	See 74 Fed. Reg. at 19651 (Apr. 29, 2009).	To reduce the number of NEPA/CZMA reviews in connection with an OCS project and to reduce processing times for most SAPs, BOEM conducts one CZMA review to cover the lease sale action and site assessment ("SAP activities") anticipated at the time. When BOEM conducts a competitive lease sale, BOEM will determine if the sale activity has reasonably foreseeable coastal effects in one or more state coastal zones. If yes, BOEM submits a CD to the affected state(s) at least 90 days before the lease sale.
Commercial Lease Site Assessment Plan (SAP) (if the SAP is submitted before lease has been issued)	Federal license or permit	15 CFR Part 930, Subpart D	30 CFR 585.612	If BOEM has not yet prepared a CD, the applicant submits a copy of the SAP, consistency certification, and necessary data and information pursuant to Subpart D to BOEM and the applicable state CZMA agency at the same time.
Commercial Lease SAP (if the plan must undergo additional environmental review after lease has been issued)	Federal license or permit (qualifies as "OCS plan")	15 CFR Part 930, Subpart E	30 CFR 585.612	If BOEM determines that the action has changed to the extent that the previously conducted environmental reviews (i.e., review of proposed lease sale and site assessment activities) do not cover[1] the proposed activities, BOEM will notify the applicant that additional information and reviews are required in connection with SAP. After receiving them from the applicant and determining completeness, BOEM forwards a copy of the COP, consistency certification, and associated data and information to affected states for CZMA consistency review.
Development Plan (COP) for Commercial Lease (submitted to BOEM after lease issuance)	Federal License or Permit (qualifies as "OCS plan")	15 CFR Part 930, Subpart E	30 C.F.R. 585.627	After receiving them from the applicant and determining completeness, BOEM forwards a copy of the COP, consistency certification, and associated data and information to affected states for CZMA consistency review.
Limited Lease (lease sale only; covers 6-month "preliminary term" prior to GAP submission)	Direct Federal Action (by BOEM)	15 CFR Part 930, Subpart C	See 74 Fed. Reg. at 19651 (Apr. 29, 2009).	When BOEM conducts a competitive lease sale, BOEM will determine if the sale activity has reasonably foreseeable coastal effects in one or more state coastal zones. If yes, BOEM submits a CD to the affected state(s) at least 90 days before the lease sale.

Right-of-Way (ROW) Grant or Right-of-Use and Easement (RUE) Grant	Direct Federal Action (by BOEM)	15 CFR Part 930, Subpart C	See 74 Fed. Reg. at 19651 (Apr. 29, 2009).	When BOEM conducts competitive issuance of grants, BOEM will determine if the sale activity has reasonably foreseeable coastal effects in one or more state coastal zones. If yes, BOEM submits a CD to the affected state(s) at least 90 days before the lease sale.
Development plan (GAP) for a limited lease, ROW or RUE (if GAP submitted *before* lease/grant has been issued)	Federal license or permit	15 CFR Part 930, Subpart D	30 C.F.R. 585.647	Applicant provides a copy of the GAP, consistency certification, and necessary data and information to the applicable state CZMA agencies and BOEM at the same time.
GAP for limited lease, ROW or RUE (if submitted *after* lease/grant issuance)	Federal license or permit (qualifies as "OCS plan")	15 CFR Part 930, Subpart E	30 C.F.R. 585.647	After receiving them from the applicant and determining completeness, BOEM forwards a copy of the COP, consistency certification, and associated data and information to affected states for CZMA consistency review.
Non-Competitively Issued Instruments				
Commercial lease	Federal license or permit	15 CFR Part 930, Subpart D	30 C.F.R. 585.231, 585.611	The lease and SAP are processed simultaneously for a non-competitive lease. The applicant prepares a CC and concurrently submits it to affected state CZMA agency and BOEM, along with the proposed SAP and all supporting information and analysis required in Subpart D.
Combined COP and SAP (submitted for processing with lease application)	Federal license or permit	15 CFR Part 930, Subpart D	See 74 Fed. Reg. at 19690 (Apr. 29, 2009).	The applicant prepares a CC and concurrently submits it to affected state CZMA agency and BOEM, along with the proposed COP/SAP and all supporting information and analysis required in Subpart D.
Development plan (COP) for commercial lease (if submitted after lease has been issued)	Federal license or permit (qualifying as "OCS plan")	15 CFR Part 930, Subpart E	See 74 Fed. Reg. at 19690 (Apr. 29, 2009).	After receiving them from the applicant and determining completeness, BOEM forwards a copy of the COP, consistency certification, and associated data and information to affected states for CZMA consistency review.
Limited lease, ROW, RUE	Federal license or permit	15 CFR Part 930, Subpart D	See 74 Fed. Reg. at 19672 (Apr. 29, 2009).	The lease application and proposed GAP are submitted and processed simultaneously for a non-competitive lease or ROW/RUE grant. The applicant prepares a CC and concurrently submits it to affected state CZMA agency and BOEM, along with the proposed GAP and all supporting information and analysis required in Subpart D.

[1] If the action proposed under a competitively issued commercial lease does not change from that described in the environmental reviews conducted for the lease sale and site assessment activities, then no further environmental review would be required for an SAP.