Texas Coastal Nonpoint Pollution Control Program Analysis of Finding that State has Satisfied All Conditions of Approvability (i.e., Full Approval Decision)

I. INTRODUCTION

The Coastal Nonpoint Pollution Control Program, set forth in Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990, 16 U.S.C. § 1455b, addresses nonpoint source pollution problems in coastal waters. Section 6217 directs states and territories with approved coastal zone management programs to develop coastal nonpoint programs to implement management measures for nonpoint source pollution control, for the purpose of restoring and protecting coastal waters. Section 6217 is jointly administered by the National Oceanic and Atmospheric Administration (NOAA) and the United States Environmental Protection Agency (EPA) (collectively, Federal agencies).

Only coastal states that choose to participate in the National Coastal Zone Management Program pursuant to Section 306 of the Coastal Zone Management Act (CZMA) are required to implement coastal nonpoint pollution programs (or coastal nonpoint programs) under section 6217 of the CZARA. On January 19, 1993, EPA issued technical guidance to assist states in designing coastal nonpoint programs. This document, titled Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, 840-B92-002 (January 1993), addresses five major source categories of nonpoint pollution: (1) urban runoff, (2) agriculture runoff, (3) forestry runoff, (4) marinas and recreational boating, and (5) hydromodification. The guidance also addresses nonpoint source pollution issues associated with the loss or damage to wetlands and riparian areas.

In March 1996, NOAA published a programmatic environmental impact statement (PEIS) that assessed the environmental impacts associated with the approval of state and territory coastal nonpoint programs pursuant to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq. The PEIS forms the basis for the environmental documents NOAA is preparing for each state and territorial coastal nonpoint program submitted for approval. In the PEIS, NOAA determined that the approval and conditional approval of coastal nonpoint programs will not result in any significant adverse environmental impacts and that these actions will have an overall beneficial effect on the environment.

On September 28, 2001, NOAA and EPA issued an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the approval, with conditions, of Texas’ coastal nonpoint program for public comment. 66 FR 49643. On October 16, 2003, NOAA and EPA approved the Texas coastal nonpoint program, with conditions. 68 FR 59588. For the conditional approval findings, see https://coast.noaa.gov/data/czm/pollutioncontrol/media/6217tx_fnl.pdf.
Since that time, Texas has undertaken a number of actions to address each of the identified conditions. Based on those actions and the materials provided by the State that document how its program meets each condition, on February 14, 2022, NOAA and EPA published a notice and request for public comment on the proposed finding that Texas has satisfied all conditions of approvability on its coastal nonpoint program. 87 FR 8233.

II. BACKGROUND

Pursuant to CZARA, state coastal nonpoint programs must contain the following components:

- Coordination with existing state programs
- Determination of the state’s coastal nonpoint management area
- Determination of critical coastal areas
- Processes for the implementation of 6217(g) management measures
- Identification and implementation of additional management measures
- Technical assistance
- Public participation
- Administrative coordination
- Identification of enforceable policies and mechanisms

Of these requirements, the development of processes that provide for the implementation of 6217(g) measures is the most detailed and complex component. Management measures are defined as "economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives." 16 U.S.C. § 1455b(g)(5). States are required to develop programs and processes to implement 56 management measures. The management measures address five categories of nonpoint source pollution: agriculture, forestry, urban areas, marinas and boating, hydromodification, and protection and restoration of wetlands and riparian areas. State programs must also provide for the implementation of "additional management measures… that are necessary to achieve and maintain applicable water quality standards and protect designated uses." § 1455b(b)(3).

Should a state fail to submit an approvable program, NOAA and EPA are both required, by statute, to withhold 30 percent of a state’s CZMA Section 306 funds and Clean Water Act (CWA) Section 319 funds. § 1455b(c)(3)-(4). In recognition of challenges states faced in developing programs, NOAA and EPA developed a policy for conditional approvals, whereby the penalty provision of section 6217 will be suspended during the conditional approval period.1 In the March 1996 PEIS, three alternatives were analyzed: approval, approval with conditions, and program disapproval (i.e., finding that a state

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1 Final Administrative Changes to Coastal Nonpoint Pollution Control Program Guidance, Oct. 16, 1998 (proposed March 12, 1998).
had failed to submit an approvable program). Under program disapproval, the state would be subject to the penalty provisions.

In the PEIS, NOAA concluded that both the full approval and the conditional approval of coastal nonpoint programs in general would have beneficial effects on the physical and biological environment associated with reduced nonpoint sources of pollution, improved water quality, and enhanced recreational opportunities. The PEIS noted, and the 2002 Texas EA affirms, that there might be some slight and localized positive and negative socioeconomic effects as with management measure implementation to reduce nonpoint sources of water pollution, but adverse environmental impacts would not be significant (NOAA 1996). After preparing a programmatic NEPA document, such as a PEIS, federal agencies may “tier” from the programmatic analysis to a narrower analysis of a specific project, policy, or program (pursuant to 40 C.F.R. §§ 1502.20 and 1508.28). The PEIS stated that approval of each state coastal nonpoint program would be analyzed in an EA that would be tiered from the PEIS. The tiered EAs refer back to the PEIS, and they focus on the characteristics and issues ripe for discussion when agencies consider a related action.

NOAA completed a tiered EA in 2002 for the Texas Coastal Nonpoint Pollution Control Program, which analyzed the alternatives of approving the program fully, approving the program with conditions, and denying approval of the program (i.e., finding the program had failed to submit an approval program, or no approval). The 2002 Texas EA concluded that both full approval and conditional approval of the Texas coastal nonpoint program would not result in any significant environmental impacts in Texas different from those analyzed in the PEIS and would have primarily beneficial effects on the environment. Further, the 2002 Texas EA indicated that conditional approval would have the same or greater benefits as full approval, by encouraging Texas to strengthen its coastal nonpoint program to satisfy the conditions while maintaining full CZMA and CWA funding, provided that Texas later satisfied the conditions. The 2002 Texas EA concluded that no action, or no approval, would have negative environmental impacts because the program would risk loss of 30 percent of its Section 306 coastal zone management funding and Section 319 Clean Water Act funding. Based on the results of the analysis, NOAA issued a Finding of No Significant Impact (FONSI). NOAA and EPA found that the proposed Texas Coastal Nonpoint Program qualified for approval, with conditions. The only comments that were received when the 2002 Texas EA, FONSI and proposed findings were made available for public comment were from the Texas General Land Office. The comments asked NOAA and EPA to reconsider some of the conditions proposed for its program in light of new information the State submitted in support of its coastal nonpoint program.

On July 16, 2020, the Council for Environmental Quality (CEQ) finalized new NEPA regulations that become effective on September 14, 2020 (85 FR 43304). Under the new regulations, 40 C.F.R. § 1506.13 (2020), the new regulations apply to all NEPA processes “begun after the effective date, but agencies have the discretion to apply them to ongoing NEPA processes.” NOAA and EPA published the proposed findings on

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2 2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program
June 15, 2020, and commenced preparing this NEPA Adequacy review before publication of the proposed findings. Likewise, this Adequacy review relies on NEPA documents also prepared in 1996 (PEIS) and 2002 (EA), well before the effective date. As such, NOAA had determined it is appropriate to rely on the CEQ regulations in place prior to the July 16, 2020, rulemaking.

III. Analysis

Under NEPA, an EIS or EA must be supplemented and re-circulated for public comment if, in pertinent part, "[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns" or "there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 CFR § 1502.9(c). The courts have further interpreted this threshold for supplementation as fairly high and subject to a rule of reason, such as where "new information must provide a seriously different picture of the environmental landscape such that another hard look is necessary." Wisconsin v. Weinberger, 745 F.2d 412, 418 (7th Cir. 1984), or if the new information is sufficient to show that the remaining action will affect the environment "in a significant manner or to a significant extent not already considered." Marsh v. Or. Natural Res. Council, 490 U.S. 360, 373-74 (1989). In this analysis, we compare the proposed action to the alternatives analyzed in the PEIS and 2002 Texas EA, and examine the new information, to determine if supplemental analysis under NEPA is required prior to full approval of the Texas Coastal Nonpoint Program (i.e., finding that the state has satisfied all conditions of approvability on its program).

A. Changes to the Proposed Action

The proposed action is the same as that analyzed in the PEIS and 2002 Texas EA, which is to make a decision on a state’s coastal nonpoint program. The alternatives are also the same-- full approval, approval with conditions, or denial. The preferred alternative (full approval, i.e., finding that a state has satisfied all conditions of approval on its program) and the state’s coastal nonpoint program, however, have changed. This section discusses how the preferred alternative and Texas’s Coastal Nonpoint Program has changed relative to the environmental impact analysis in the PEIS and 2002 Texas EA.

The preferred alternative from the 2002 Texas EA was a conditional approval of the Texas Coastal Nonpoint Program. The approval, with conditions, was granted on October 16, 2003. NOAA and EPA put several conditions on Texas’s program related to new development and existing development, site development, watershed protection, and hydromodification. More information regarding the specific conditions that were placed on Texas’s program can be found in NOAA and EPA’s 2003 findings document on Texas’s Coastal Nonpoint Program (available on NOAA’s Coastal Nonpoint Program website at https://coast.noaa.gov/data/czm/pollutioncontrol/media/6217bx_fnl.pdf).
The preferred alternative at this time is finding that Texas has satisfied all conditions of approvability on its program (i.e., full approval). Full approval was analyzed in both the PEIS and the 2002 Texas EA. Since the publication of the 2002 Texas EA, the state has better articulated how its existing programs and authorities address the 6217(g) management measures and further strengthened other parts of its coastal nonpoint program. While the program designed to meet the management measures is more fully developed, the proposed finding that Texas has satisfied all conditions of approvability on its program simply confirms that Texas has developed a program containing management measures necessary to achieve and maintain applicable water quality standards and protect designated uses. As such, the proposed action has not changed in a way that affects the environmental impacts analysis or conclusions contained in the 2002 Texas EA. Some particular management measures are discussed below for illustration purposes. A full description of the updates to the State’s coastal nonpoint program may be found in the proposed findings (available on NOAA’s Coastal Nonpoint Program website at https://coast.noaa.gov/data/czm/pollutioncontrol/media/6217tx_decision.pdf).

For example, Texas has included in its program management measures in conformity with the 6217(g) guidance for new development and site development. These management measures are intended to accomplish the following: (1) decrease the erosive potential of increased runoff volumes and velocities associated with development-induced changes in hydrology; (2) remove suspended solids and associated pollutants entrained in runoff that result from activities occurring during and after development; (3) retain hydrological conditions to closely resemble those of the pre-disturbance condition; and (4) preserve natural systems including in-stream habitat.

State coastal nonpoint programs are no longer required to address new development management measures in urbanized areas subject to Phase I or Phase II National Pollutant Discharge and Elimination System (NPDES) municipal separate storm sewer systems (MS4) permits because these regulations are redundant with this management measure for those permitted areas. See NOAA and EPA’s 2002 memorandum, Policy Clarification on Overlap of 6217 Coastal Nonpoint Programs with Phase I and II Storm Water Regulations. However, under that policy clarification, management measures in conformance with the 6217(g) guidance are still needed for new developments occurring outside of NPDES permitted urbanized areas. Currently, nine counties and 38 communities in the Texas coastal nonpoint management area are designated MS4s. These designated MS4s cover nearly 80 percent of the land area that is not already protected and contain 91 percent of the population within the coastal nonpoint management area. Thus, the 6217(g) new development management measure now applies to 40 incorporated non-MS4 communities in the coastal nonpoint management area, which represent 8.6 percent of the population and 1.7 percent of the land in the management area.

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Outside of designated MS4 communities, Texas addresses its condition for the new development management measure through its encouragement of voluntary adoption of the State’s 2019 Guidance for Sustainable Stormwater Drainage on the Texas Coast (stormwater guidebook)\(^4\). The voluntary stormwater guidebook includes planning tools, practices, performance standards and a model ordinance that Texas coastal communities can utilize to further stormwater management efforts. The State has committed to partnering with non-MS4 communities to encourage the voluntary adoption of the approaches, practices, and model ordinance described in the guidebook.\(^5\) The State’s stormwater guidebook provides decision makers with guidance on stormwater management systems that are in conformity with the new development management measure.

Texas addresses the management measures for planning, siting, and developing roads and highways, bridges, and operation and maintenance of such infrastructure primarily through its voluntary 2019 Guidance for Roads, Highways, and Bridges.\(^6\) Texas further supports the implementation of these management measures by promoting training from TxDOT\(^7,8,9\) and Texas A&M Engineering Extension Service\(^10\) that is consistent with the management measures for planning, siting, and developing roads and highways, bridges, and operation and maintenance to county employees. Trainings offered by these entities address a variety of subjects, including National Environmental Policy Act (NEPA) and transportation planning, rules and regulations protecting Texas’ water resources, Section 404 compliance and construction, a non-technical overview of the highway development process, and an introduction to TxDOT’s Local Government Project requirements.

For the management measures for channelization and channel modification and eroding stream banks and shorelines, Texas addresses its condition through its strategy to encourage the voluntary adoption of the State’s 2008 Hydromodification Best Management Practices Manual (hydromodification manual). Other voluntary initiatives such as the Texas Coastal Resiliency Master Plan, Watershed Protection and Total Maximum Daily Load (TMDL) Implementation Plans, the State’s land acquisition efforts, and the Coastal Erosion Planning Response Act (CEPRA) program further support the implementation of these management measures.

From 2002 to present, the changes to the Texas program reflect the development and/or further explanation of specific programs and policies to meet the CZARA management measure requirements. Although the manner in which Texas’ program would meet the approval conditions were not known at the time the 2002 Texas EA was published, NOAA and EPA had identified requirements for program approval, and the impacts were analyzed in the prior NEPA documents. The proposed agency action that Texas has met all conditions of approvability placed on its program, (i.e., full approval) is simply a finding that a program satisfies the program requirements. The action does not vary from that analyzed in the 2002 Texas EA.

The management measures requiring behavior changes to reduce nonpoint sources of water pollution may cause slight negative socioeconomic effects, but neither the socioeconomic impacts, nor any environmental impacts, would be significant. Rather, Texas’ implementation of these management measures is expected to have positive impacts on both environmental conservation and human health and safety by increasing the quality of coastal habitats. Consistent with the analysis in the 2002 Texas EA, the approval of the conditions will continue the state’s eligibility for funding to implement the aforementioned management measures, which are expected to have positive environmental impacts and minor negative socioeconomic impacts.

**B. Considerations for Adequacy of Existing EA**

1. **Comparison of the range of alternatives analyzed and evaluated in the prior two NEPA analysis documents and the proposed action to find that Texas has satisfied all conditions of approvability on its program (i.e., full approval):**

   The alternatives presented in this sufficiency analysis are generally the only ones available to both NOAA and EPA: full approval (i.e., approval without conditions or finding that a state has satisfied all conditions of approvability placed on its program), conditional approval, or disapproval (i.e., finding that a state has failed to submit an approvable program).

2. **Comparison of Affected Environment**

   The geographic area and resource conditions of the affected environment have slightly evolved since the management area was analyzed in the existing NEPA document. Some of the characteristics of the affected environment have changed over time, reflecting a moderate increase in coastal uses, such as population growth, and increased urban development and agriculture activities. Although there have been some changes in the affected environment since the 2002 Texas EA, the changes in coastal use trends and the evolution of the affected environment continue to provide adequate baseline information to support the findings in the 2002 Texas EA that approval of the program will not have significant impacts on the environment.
a. Coastal Nonpoint Program Coastal Environment

i. Geographical Boundary

The geographic area across which the Texas coastal nonpoint program extends is the same as the geographic area analyzed in the original 2002 Texas EA. No conditions were placed on the coastal nonpoint program management area boundary proposed by Texas. The designated area was found to be sufficient to control the land and water uses that have or are reasonably expected to have a significant impact on the coastal waters of Texas. Therefore, there has been no change to the boundary of the management area.

ii. Terrestrial Environment

Texas’ environment has slightly changed as a result of various anthropogenic and natural factors. For example, as discussed further in the climate change analysis below, storm surge has increased in Texas, which has caused an estimated 64 percent of the coastline to erode at an average rate of six feet per year.\(^{11}\) However, for purposes of this sufficiency analysis, the coastal environment of Texas has not changed to a substantial degree. At the time of the 2002 Texas EA, the Texas coast had a tidal shoreline length of about 367 miles, a total shoreline, including bays, sounds, and rivers of 3,359 miles, and a coastal land area of 20,784 square miles; the shoreline remains unchanged today.\(^{12,13}\) Much of the mainland remains separated from the Gulf of Mexico by a chain of barrier islands that extend 367 miles along the Texas shoreline. The islands are separated from the mainland by a narrow body of freshwater, brackish or saltwater, or a wetland, with a series of passes that connect the bays with the Gulf. Barrier islands such as North and South Padre Islands, San Jose Island, Matagorda Island, Mustang Island, and Galveston Island act as buffers against coastal storms, protect wetlands, and restrict intrusion of salt water into estuarine areas.

From the Texas-Louisiana border to Galveston, the coastline of Texas contains marshy plains with low, narrow beach ridges. From Galveston to the Texas-Mexico border, the coastland consists of barrier islands with shallow lagoons. The area between the mid- and lower-coast consists primarily of flat coastal prairies, chaparral pastureland, and farmlands. Texas’ coastal climate varies from warm and humid in the Beaumont-Port Arthur and Galveston-Houston area to semiarid along the lower coast in the Kingsville and Brownsville area.\(^{14}\)

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12 2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program, p. 10
13 https://coast.noaa.gov/data/docs/states/shorelines.pdf
iii. Water Quality

Under the federal Clean Water Act (CWA) and the Texas Water Code, Texas must adopt surface water quality standards for waters in the state, assess the status of water quality, and implement actions necessary to achieve and maintain those standards. The long-term goal of the Texas Nonpoint Source Management Program, developed under CWA Sections 319(a) and 319(b), is to protect and restore the quality of the state’s water resources from the adverse effects of nonpoint source pollution.

The Texas Commission on Environmental Quality (TCEQ) is the lead state agency responsible for establishing the level of water quality to be maintained in Texas. Per the Texas Water Code Chapter 26, a primary responsibility of the TCEQ is the reduction of nonpoint source pollution from sources which are not related to agriculture or forestry. The Texas State Soil and Water Conservation Board (TSSWCB) is the lead agency in the state for planning, implementing, and managing programs and practices that prevent and abate agricultural and silvicultural nonpoint source pollution. Together, the TCEQ and the TSSWCB jointly administer the Texas Nonpoint Source Management Program.15

Many local, regional, and state agencies also play an important role in managing nonpoint source pollution. These entities provide information about local water quality issues and build support for the management measures that are necessary to prevent and reduce nonpoint source pollution. Coordinating with these partners allows the state to effectively manage its water quality protection and restoration efforts.16

The Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d) describes the status of all surface water bodies in the state evaluated for the given assessment period. The TCEQ uses data collected during the most recent seven- to ten-year period to assess the quality of surface water bodies in the state. The descriptions of water quality for each assessed water body in the Integrated Report represents water conditions during the time period considered in the assessment.17

The Texas 1998 section 303(d) list of impaired water bodies states that nonpoint pollution contributed to the impairment of 60 of the 71 coastal water body segments listed as not supporting or partially supporting their designated water uses. Septic systems and urban runoff were the primary nonpoint sources most responsible for the impairments.18

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18 2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program, p. 15 citing Texas’ 1998 Integrated Report
The 2016 Integrated Report included a comprehensive water quality evaluation of 1,453 classified and unclassified water bodies throughout the State. The report evaluated freshwater streams, reservoirs, tidal streams, bays, estuaries, and the Gulf of Mexico. A total of 574 impairments were included in Category 5 in 2016. Category 5 includes impaired waters for which TMDLs or other management strategies are planned. Recreational use impairments due to elevated bacteria represented the highest percentage (39%) included in Category 5. Dissolved oxygen and organics in fish tissue had the next highest percentages (17% and 19% respectively).\(^\text{19}\) In Texas’ coastal counties in particular, there were currently approximately 300 impaired water bodies.\(^\text{20,21,22}\) Direct comparison between the 1998 and 2016 water quality assessments is not possible, as Texas did not use the same categorization of waterbodies in 2016 as it did in 1998; an increase in total water bodies were assessed in 2016 compared to 1998, and additional sites within water bodies were sampled.\(^\text{23}\) The TCEQ has also improved its techniques and protocols for assigning tailored, site-specific uses; in 2000, 613 waterbodies had site-specific standards established, compared to 741 water bodies in 2018.\(^\text{24}\) The number of sampling events has also increased significantly since 1998.\(^\text{25}\)

b. Coastal Nonpoint Program Management Area Land and Water Uses

This section provides a description of the terrestrial environment and the land and water uses and users in the Texas coastal nonpoint program management area. The Texas coastal nonpoint program management area supports extensive and varied commercial and recreational activities. As in 2002, the intensity and nature of land and water uses in many areas has the potential to threaten and degrade coastal water quality if adequate best management practices to control nonpoint source pollution are not employed. However, for the purpose of supplementation review, Texas’ terrestrial environment and land and water uses have not significantly changed.

i. Coastal Zone Population

In 2000, approximately 5 million people, 22.6 percent, of the Texas population lived in the 18 counties within the coastal zone. In 2019, the coastal region’s estimated total population was approximately 7 million, 25 percent, of the

\(^{22}\) https://www.arcgis.com/apps/MapSeries/index.html?appid=971cfb0d854c4b7a9c8e020d57e9a379
\(^{24}\) https://www.tceq.texas.gov/waterquality/watersuccess
\(^{25}\) https://www.tceq.texas.gov/waterquality/watersuccess
This population growth is a substantial change that can create additional pressure to increase development in the region, which, in turn, could increase nonpoint source pollution if not managed properly. However, the effects of this population growth are abated by mitigation measures under Texas’ coastal nonpoint program, and do not change the findings in the 2002 Texas EA that approval of the program will not have significant impacts on the environment.

ii. Agriculture

At the time of the 2002 Texas EA, agricultural production and related activities made up the state’s second largest economic sector. Important agricultural commodities produced in coastal areas were sugar cane, rice, grain sorghum, wheat, peanuts, soybeans, hay, corn, citrus, vegetables, cotton, poultry, sheep, and beef and milk cows.

The number of farms, total cropland, and market value of agricultural products varied widely in the coastal counties. Brazoria and Harris counties, each with over 1,700 farms, had the highest number of farms, while Kenedy and Aransas counties had only 31 and 54, respectively. Nueces County had a total of 350,756 acres in cropland, the highest in the state. Cameron County was the leading county in market value of all agricultural products sold with a value of almost 80 million dollars. Brazoria and Matagorda counties were among the leading counties in the nation in inventory of beef cows. In 2000, Brazoria had 55,000 beef cows and Matagorda had 42,000.

Today, Texas’s coastal area continues to support a diverse agricultural industry. Important agricultural products include beef and milk cows, sheep, hay, poultry, hogs, goats, corn, oats, wheat, sugar cane, peanuts, soybeans, sorghum, cotton and rice. In 2020, Brazoria county remained the county with leading beef cattle numbers, with 71,000 beef cows in the county. Wharton county had 59,000 beef cows, followed closely by Matagorda county, which had 56,000 beef cows. Nueces county has increased farmland to 474,868 acres in 2017 from 350,756 acres at the time of the 2002 Texas EA. Brazoria county had 2,851 farms in 2017, which is an increase of approximately 1,000 farms since the time of the 2002 Texas EA. Though there has been an increase in agriculture activities in some coastal areas, increased urban development in other counties has caused a decrease in the number of acres used for farms.

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27 [2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program, citing Hightower, 1990](https://comptroller.texas.gov/)
28 [2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program, citing Census of Agriculture, 1997](https://comptroller.texas.gov/)
29 [2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program, citing Cattle County Estimates, 1999-2000](https://comptroller.texas.gov/)
32 [https://quickstats.nass.usda.gov/results/4846140F-510A-36DE-87FC-43A3C77EF4B3#6139BB00-91A3-34D0-81F3-797437646B1F](https://quickstats.nass.usda.gov/results/4846140F-510A-36DE-87FC-43A3C77EF4B3#6139BB00-91A3-34D0-81F3-797437646B1F)
and ranches. For example, Harris County is losing about 2,000 to 5,000 acres of agricultural land annually. Thus, the increase in agricultural activities in some counties is not significant, as the overall agricultural activity in the region has remained relatively constant.

iii. Forestry

East Texas, with nearly 12 million acres of timberland, contained most of the state’s timberland at the time of the 2002 Texas EA. Much of this timberland was actively managed for the sustainable production of timber by forest industries, nonindustrial private forest landowners, and public agencies. Chambers, Jefferson, and Orange Counties are the only counties in the coastal zone that had significant forest activities.

The East Texas pine-hardwood region remains the principal forest region in Texas, and the area remains relatively unchanged from the time of the 2002 Texas EA, with 12.1 million acres of forestland. Of this forestland, 11.9 million acres are classified as productive timberland and produce nearly all of the state’s commercial timber. Currently, 92 percent of East Texas timberland is owned by approximately 210,000 private individuals, families, partnerships, corporations, companies, and timber investment groups. The remaining 8 percent is owned by federal, state, and local governments. Chambers, Jefferson, and Orange Counties remain the only counties in the coastal zone that had significant forest activities, though these counties produce little timber compared to other counties in the East Texas region.

iv. Urban

In 2000, the Texas coastal zone contained 2,019,854 housing units, with a housing density of 133.8 per square mile. Housing development has increased to 2,685,574 housing units in 2018, with a housing density of 178.0 per square mile. These numbers reflect the coastal watershed, which is close to but not exactly equivalent to the coastal nonpoint boundary.

v. Marinas

Recreational boating activities remain to be a major use of Texas’ coastal waters. There were approximately 563,820 boats registered in the State of Texas in 2020. Compared to the boats registered in Texas in 1999, this is a

34 2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program, p. 12 citing Texas’ 1997 Nonpoint Source Plan
35 2002 Environmental Assessment for Texas’ Coastal Nonpoint Pollution Control Program, p. 12 citing Texas’ 1997 Nonpoint Source Plan
36 https://texasalmanac.com/topics/business/forest-resources
37 https://oceaneconomics.org/Demographics/PHResults.aspx
There is a decrease of 65,820 boats. There are currently 261 marinas located in Texas, a decrease from the 298 marinas located in the state in 1991.\textsuperscript{39}

C. Direct and Indirect Effects Comparison

This section discusses a direct and indirect effects comparison between the full approval analysis in this sufficiency analysis and the existing NEPA documents. The direct and indirect effects of full approval of the Texas program (i.e., finding that the state has satisfied all conditions of approvability on its program) are similar qualitatively and quantitatively to the effects of full approval discussed in the 1996 PEIS and the 2002 Texas EA. The programs, initiatives and other components proposed for inclusion in the Texas coastal nonpoint program are already operating, independent of the NOAA-EPA proposed action. The elements of the coastal nonpoint program are supported by enforceable policies and mechanisms that will remain in effect regardless of the federal action. Thus, there are limited direct impacts of the federal action itself, particularly now that there is no longer a dedicated funding source for coastal nonpoint programs.

The indirect effects of activities falling under the umbrella of the coastal nonpoint program have beneficial effects to the natural and socioeconomic environment. For more information about these effects, see Section 4 of both the PEIS and the 2002 Texas EA. The funding levels available to Texas for coastal management and water quality initiatives will not change as a result of full program approval (i.e., finding that Texas has satisfied all conditions of approvability on its program). Texas would simply continue to be eligible to receive CZMA Section 306 funds. If NOAA and EPA were to find that Texas had failed to submit an approvable program (i.e., disapprove the program), a 30 percent reduction in CZMA Section 306 coastal zone management and CWA Section 319 nonpoint source management funding would have indirect adverse effects on the physical, biological, and socioeconomic environments because it would reduce investments in efforts to manage coastal uses and improve water quality. The state’s CZMA Section 306 funding supports overall implementation of the state’s coastal zone management program. While not all activities supported through CZMA Section 306 funds are directly related to water quality and coastal habitat, the Texas coastal management program often supports efforts every year related to coastal water quality. These initiatives, as well as other initiatives of the coastal management program related to coastal resilience, public access and other coastal management issues may also have to be reduced. The state’s CWA Section 319 funding is used to fund eligible projects that reduce pollutant loads and improve water quality, including installation of best management practices that reduce the transport of pollutants to waterbodies. If the state’s CWA Section 319 funding is reduced, Texas would have to cut the number of projects that improve water quality and reduce nonpoint source pollution it is able to support.

\textsuperscript{39} https://marinas.com/browse/marina/US/TX
NOAA and EPAs proposed finding that Texas has satisfied all conditions of approvability on its program (i.e., full program approval) signifies that Texas has demonstrated that it has met all coastal nonpoint program requirements, including that it has in place programs and processes to implement the 6217(g) management measures. This continued implementation and funding of Texas’ nonpoint program translates to continued beneficial effects to water quality as discussed in the 2002 Texas EA. Also, as noted in the 2002 Texas EA, both conditional and full approval of the Texas coastal nonpoint program help make existing programs more effective by continuing to strengthen the link between federal and state coastal zone management and water quality programs in Texas. Thus, the various direct, indirect, and cumulative effects resulting from implementation of the new proposed action are similar to those analyzed in prior NEPA documents, including the 2002 Texas EA.

D. Analysis of Cumulative Impacts

Cumulative impacts, as defined in NEPA, are the impacts from the proposed action, when added to other past, present, and reasonably foreseeable future actions affecting the same geographic range or area of potential effect. In addition to the discussion on environmental impacts from the proposed action, cumulative impacts, in particular, assist stakeholders to understand the complete picture of what is taking place in the project area because it looks at not just the impacts from the proposed action, but also impacts from all other actions and natural influences. The Texas General Land Office has identified multiple stressors that lead to potential adverse cumulative impacts within the coastal nonpoint program boundary.

For example, in the past century, the State of Texas has warmed between one-half and one degree Fahrenheit.\(^40\) Average annual rainfall is increasing, particularly in the eastern two-thirds of the state, yet Texas’s soil is becoming drier. Along much of the coast, the sea is rising almost two inches per decade.\(^41\) In the coming decades, storms are expected to become more severe, deserts may expand, and summers are likely to become increasingly hot and dry, creating problems for agriculture and possibly human health.\(^42\)

Storm surge has increased since the time the 2002 Texas EA was produced. Powerful storms cause the shoreline to erode, and without healthy beaches, dunes, and wetlands help protect the coast, hurricanes can be even more destructive. As rainstorms become more frequent and intense, floods are becoming more severe. Of the top 100 rainiest days since 1970 in Houston, 54

have occurred since 2000. These top-tier rainy days were twice as common in the 2000-2017 period, compared with the 1970-1999 interval.43

Warmer winter temperatures, heavier spring rains, and drier summers allow for an increase in harmful blue-green algae. Above average rainfall washes pollutants into streams, rivers, and lakes. The summer heat then warms and evaporates some of the polluted water, leaving stagnant pools containing runoff pollutants from cities and fertilizers from farms. Algae thrive in this environment and sometimes release a toxin that causes respiratory problems and rashes in humans and depletes oxygen content in water affecting marine life.44

Since the time of the 2002 Texas EA, approximately 12 percent of Texas’ coastal wetlands have been lost. Wetlands loss and degradation in Texas’ coastal zone has resulted from both natural and man-induced causes. Natural causes include the wind and wave action of storms, droughts, erosion and sea level rise.45 Man-made causes include land subsidence caused by the extraction of oil, gas, and groundwater; channelization of estuaries; filling of wetlands with dredged spoil and solid waste disposal; dike, dam, levee, and seawall construction; canal dredging; and wetland drainage for crop production, mosquito control, and oil and gas exploration.46

These factors have the potential to increase polluted runoff which negatively affects water quality, coastal habitats, and the organisms these habitats support. Additionally, polluted runoff has been known to impact water temperature, turbidity, salinity, dissolved oxygen levels, and bacteria levels which then lead to an impact on the associated habitats.

Nonpoint source pollution cannot be addressed by one entity or program by itself. It requires a comprehensive effort by many different organizations that are able to bring their resources and expertise to bear. Therefore, in addition to various state initiatives and programs to address nonpoint source pollution and improve coastal water quality in coastal Texas, there are additional efforts being carried out by federal and local governments, non-governmental organizations, and the private sector.

For example, the Coastal Bend Bays and Estuaries Program (CBBEP) is one of the 28 National Estuary Programs that works with local government, stakeholders, conservation groups, industry, and resource managers to improve water quality and restore critical habitats. CBBEP targets nonpoint source pollution issues through research projects to identify pollution sources. CBBEP also participates in the development and implementation of watershed protection

45 https://www.arcgis.com/apps/MapJournal/index.html?appid=5f96e54fd1bb457f8f8df9c1798a08f2
46 https://www.arcgis.com/apps/MapJournal/index.html?appid=5f96e54fd1bb457f8f8df9c1798a08f2
plans and TMDL implementation plans.

The Center for Coastal Studies at Texas A&M University – Corpus Christi has partnered with CBEP to conduct water quality sampling and outreach activities in the rural areas of the Oso Bay watershed. These efforts identify sources of nutrients found in high concentrations in bay systems alongside stakeholders and scientists as a means of identifying areas of concern. The information is used for outreach efforts to deter practices that lead to the introduction of elevated pollutants and nutrients in runoff.

Texas also manages an inventory of urban runoff management practices currently used in the coastal zone to determine areas where CZARA management measures are not met. Texas developed a comprehensive implementation plan that is designed to obtain compliance with the CZARA requirements to address urban runoff. Texas also developed a guidance manual for Sustainable Stormwater Drainage on the Texas Coast to provide additional guidance and resources to coastal communities.47 This guidance manual discusses various management practices to prevent stormwater runoff and mitigate damage caused by the runoff.48 The innovative stormwater management techniques outlined in Texas’ guidance manual for Sustainable Stormwater Drainage improves natural resources and wildlife habitat and offers guidance on how to prevent expensive mitigation costs. Aquatic habitat improvements can be seen from sustainable development practices as the quality, volume, rate, and temperature of stormwater runoff entering receiving water bodies is more closely associated with pre-development conditions.49

Additionally, several projects are being implemented to help satisfy CZARA requirements to inspect septic systems in the coastal zone. In 2020, Texas A&M AgriLife Extension Service used CWA Section 319(h) funds from TCEQ and the EPA to update the Coastal Onsite Sewage Inventory database, which stores septic system information and helps the state efficiently direct funding and resources to designated areas.

There are many nonpoint pollution control projects that occur in the Texas coastal zone on a voluntary basis.50 For example the Houston-Galveston region’s annual clean-up, which takes place at approximately 17 sites, facilitates the continuation and expansion of waterway clean-up events, and includes education displays and training regarding nonpoint source pollution related to bacteria.51 Another volunteer-based program is the Texas Stream Team - Volunteers Monitoring Water Quality program, which increases public knowledge of water

50 https://www.tceq.texas.gov/waterquality/nonpoint-source/projects/all-nps-projects
quality issues through trained volunteers who conduct water quality monitoring on their local lakes, rivers, streams, and estuaries across the state.\textsuperscript{52}

The 6217(g) management measures are designed to reduce and/or prevent polluted runoff, thus limiting stress caused by poor water quality on resources and local communities within the coastal nonpoint management area. While the programs that comprise Texas’ coastal nonpoint program may cause limited cumulative socioeconomic effects on coastal communities and individuals that need to modify certain land management practices, such as those related to agriculture runoff management, stormwater management, and waste disposal, government agencies and individuals have been subject to economic costs related to administering water quality and environmental management programs (including the coastal nonpoint program) for years. In addition, the programs that comprise the coastal nonpoint program already exist and are being implemented and will continue to be implemented at the federal, state or local level regardless of NOAA and the USEPA's finding that Texas has met all conditions of approvability on its coastal nonpoint program (i.e., full approval). Therefore, NOAA and EPA's action to find that Texas has satisfied all conditions of approvability on its coastal nonpoint program would not create any additional cumulative effects.

NOS concludes that the proposed action and the effects of implementing Texas’ coastal nonpoint program will improve water quality and increase the potential for resources to sustain themselves. Further, NOS concludes that the action, when added to the other past, present, and reasonably foreseeable future actions within the coastal nonpoint program area will not significantly alter the ecosystem or have an adverse effect. Additionally, the proposed action, when combined with other actions, will not affect the potential for any resources in the coastal nonpoint management area to sustain themselves in the future. Therefore, NOS concludes that cumulative impacts to the proposed action, as defined under NEPA, are not significant.

\textbf{E. E. Public Review}

On September 28, 2001, NOAA and EPA announced a 30-day public comment period on the proposed conditional approval findings, EA, and FONSI for the Texas coastal nonpoint program (66 FR 49643). Only one comment was received from the Texas General Land Office, one of the state co-administrators of the Texas coastal nonpoint program, providing additional information in support of their coastal nonpoint program and asking NOAA and EPA to reconsider the conditions on their program due to the new information they provided. As noted above, full approval was one of the alternatives presented in the 2002 Texas EA. Thus, the public has already been given one opportunity to comment on the environmental consequences of the action that is currently being proposed.

\textsuperscript{52} https://www.tceq.texas.gov/waterquality/nonpoint-source/projects/texas-stream-team#project-description
On February 14, 2022, NOAA and EPA announced in the Federal Register a proposed decision that Texas has satisfied all conditions of approvability placed on its coastal nonpoint program for a 30-day public comment period (i.e., full approval). One comment, from Ingleside on the Bay Coastal Watch Association, was received, requesting a review of compliance and violations in the Texas Coastal Bend area. The concerns primarily related to state or federal (U.S. Army Corps of Engineers) permitted activities that were not under the direct purview of the coastal nonpoint program. The federal agencies shared the concerns the commenter raised about potential permit violations with the state. The state was aware of the instances and was already taking follow up action or referred the issue to the U.S. Army Corps of Engineers as the permitting agency. Thus, NOAA and EPA have provided multiple opportunities for public engagement, and the public has received sufficient notice and opportunity to comment on the proposed action.

IV. CONCLUSION

NOAA has determined that there is not a need to supplement the existing 2002 Texas coastal nonpoint program EA in order to find that Texas has satisfied all conditions of approvability placed on its coastal nonpoint program. The changes to the proposed action and the new information and circumstances do not suggest the proposed action will result in significant adverse impacts, and the expected impacts of the action currently proposed were considered in the 2002 Texas EA. Therefore, the 2002 Texas EA and FONSI remain valid, and NOAA will continue to rely on them to support the proposed action.

V. FINDING OF NO SIGNIFICANT IMPACT

Pursuant to section 6217 of Coastal Zone Act Reauthorization Amendments, the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) propose to find that Texas has satisfied all conditions of approvability placed on its coastal nonpoint pollution control program. In addition to the preferred alternative, NOAA and EPA considered Texas additional alternatives: conditional approval, disapproval, and no action. The Final Environmental Assessment (EA) prepared in 2002 to evaluate potential consequences associated with approving and implementing the Texas Coastal Nonpoint Pollution Control Program concluded that the full approval of the Texas coastal nonpoint program will not result in any significant environmental impacts different from those analyzed in the 1996 Programmatic Environmental Impact Statement (PEIS) for the Coastal Nonpoint Pollution Control Program, which resulted in a Finding of No Significant Impact (FONSI). The 2002 Texas EA was tiered off the 1996 PEIS and focused on information specific to Texas. The analysis in the 2002 Texas EA indicates that potential environmental effects from full approval and implementation of the proposed Texas program (the preferred alternative) would not be significant individually or cumulatively. Thus, preparation of a Finding of No Significant Impact (FONSI) is warranted.
NOAA uses eleven criteria for determining the significance of the impacts of a proposed action. These criteria are discussed below as they relate to the proposed project. Each criterion is discussed below with respect to the proposed action and considered individually, as well as in combination with the others.

a. **Has the agency considered both beneficial and adverse effects? (A significant effect may exist even if the Federal agency believes on balance the effect will be beneficial.)**

The agency has considered both beneficial and adverse effects, and no significant adverse effects are anticipated. The primary beneficial effects of the Texas Coastal Nonpoint program relate to the improvement of Texas's water quality. Texas also expects the program to promote an improved coastal habitat, improved public health, increased aesthetic value of coastal areas and enhanced recreational opportunities as a result of cleaner water and healthier coastal habitats.

b. **To what degree would the proposed action affect public health and safety?**

The proposed approval decision would not be anticipated to have significant impacts on public health or safety because it would not alter any Texas programs already in operation. Additionally, the implementation of management measures reduces nonpoint source pollution generation from a variety of sources and minimizes the delivery of pollutants into Texas’s land, surface water, and groundwater, which could result in minor improvements to public health and safety due to cleaner coastal waters.

c. **To what degree would the proposed action affect unique characteristics of the geographic area in which the proposed action is to take place?**

None. Though there are unique places within the Texas coastal nonpoint management area, the proposed action will not affect its unique characteristics because it does not create any new programs or initiatives. Finding that the state has satisfied all conditions of approval placed on its coastal nonpoint program does not create new programs or policies that change how Texas already manages nonpoint source pollution; the programs and policies that comprise Texas’s coastal nonpoint program already exist and are being implemented by state, local, and other entities regardless of NOAA and EPA’s action.

d. **To what degree would the proposed action have effects on the human environment that are likely to be highly controversial?**

The effects of the proposed action on the human environment are not likely to be highly controversial. The programs and authorities that comprise Texas’s Coastal Nonpoint Program are already in existence and being implemented at the state and local level and will continue to be implemented regardless of NOAA and EPA’s
action. Therefore, NOAA and EPA’s action will not create any additional effects on the human environment beyond what is already occurring in absence of the action.

While NOAA and EPA’s proposed action would allow Texas to be eligible for future funding (if appropriated) to implement its coastal nonpoint program, any potential effects of that future funding on the human environment are unknown and speculative at this time. NOAA has mechanisms in place for evaluating any effects on the human environment if and when a future funding decision is made.

e. **What is the degree to which effects are highly uncertain or involve unique or unknown risks?**

None. There are no uncertain, unique, or unknown risks associated with the proposed finding that Texas has satisfied all conditions of approvability on its coastal nonpoint program. The Texas Coastal Nonpoint Program consists entirely of existing state and local requirements, as well as voluntary educational and participatory activities, which do not have uncertain, unique, or unknown risks.

f. **What is the degree to which the action establishes a precedent for future actions with significant effects or represents a decision in principle about a future consideration?**

None. NOAA and EPA evaluate individually each proposed coastal nonpoint program by carefully reviewing all materials submitted by any conditionally approved state or territory to evaluate whether the information provided addresses applicable conditions of approvability. The finding that Texas has satisfied all conditions of approvability on its coastal nonpoint program does not have any bearing on whether NOAA and EPA will make similar findings of programs in other jurisdictions. Thus, this action does not establish a precedent for future actions or represent a decision in principle about a future consideration.

g. **Does the proposed action have individually insignificant but cumulatively significant impacts?**

No, this action would not have any individually insignificant but cumulatively significant impacts. A finding that a state has satisfied all conditions of approvability on its coastal nonpoint program would facilitate continued investments in addressing coastal nonpoint pollution in Texas. These investments and other endeavors identified as components of the Texas Coastal Nonpoint Program would be expected to give Texas improved control of sources of nonpoint pollution and result in reduced pollutant levels entering coastal waters, improved water quality, and enhanced coastal habitat. The Texas Coastal Nonpoint Program has beneficial impacts on the physical, biological, and socioeconomic environment in Texas. Potential adverse effects would not exceed the ability of human or natural communities to withstand stress. Thus, neither the incremental effects of a finding that Texas has satisfied all conditions of approvability nor program implementation will have individually or cumulatively significant effects.
h. What is the degree to which the action adversely affects entities listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources?

None. Issuing a finding that Texas has satisfied all conditions of approval on its coastal nonpoint program is a federal action that would have no potential to affect historic properties or significant scientific, cultural, or historic resources in Texas because it is an administrative action. Prior to approving or providing funding (typically under the Coastal Zone Management Act) for other types of specific activities in Texas that address coastal nonpoint pollution, NOAA’s Office for Coastal Management evaluates environmental compliance needs and ensures compliance with NHPA and all other applicable requirements. For example, targeted consultations under NHPA are conducted for those activities that have the potential to cause an adverse effect on historic properties. At that time, NOAA can provide to the Texas Historical Commission the site-specific details necessary to fully analyze the effects of specific actions to historic properties.

i. What is the degree to which endangered or threatened species, or their critical habitat, as defined under the Endangered Species Act of 1973, are adversely affected?

None. Finding that Texas has satisfied all conditions of approval on its coastal nonpoint pollution program would have no effect on threatened and endangered species or their critical habitat. Projects aimed at managing, quantifying, and controlling coastal nonpoint pollution funded by NOAA under the Coastal Zone Management Act are evaluated individually with respect to their potential to affect resources protected pursuant to the Endangered Species Act; appropriate procedures are followed if there is a need to consult with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

j. Does the proposed action have a potential to violate federal, state, or local law for environmental protection?

No. Finding that Texas has satisfied all conditions of approval on its coastal nonpoint program does not have the potential to violate federal, state, or local law. Federally-supported projects intended to reduce coastal nonpoint pollution are required to comply with all applicable federal, state, and local laws, including those for environmental protection. Given project review at the state and federal level, no violation of environmental protection laws is threatened.

k. Will the proposed action result in the introduction or spread of a non-indigenous species?

No. Finding that Texas has satisfied all conditions of approval on its coastal nonpoint program will not result in the introduction or spread of any non-indigenous species. The components of the program are already in place and exist and are being
implemented at the state and local level regardless of the federal action. Neither the components identified as planned parts of the Texas Coastal Nonpoint Program nor federally-supported nonpoint pollution reduction projects would be expected to introduce any invasive species because they would be subject to federal and state requirements and best management practices intended to reduce the spread of non-indigenous species. The Texas Parks and Wildlife Department, other state agencies, and other entities are involved in invasive species management.
Finding of No Significant Impact

State of Texas Coastal Nonpoint Pollution Control Program

Analysis of Full Approval Decision

In view of the information and analysis presented in the attached Programmatic Environmental Assessment evaluating consequences related to the federal action about the Texas Coastal Nonpoint Pollution Control Program, it is hereby determined that finding that Texas has satisfied all conditions of approvability on its program will not significantly impact the quality of the human environment, as described above and in the supporting Programmatic Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.

Keelin Kuipers
Deputy Director
Office for Coastal Management

ATTACHMENTS:
Original PEIS
EA/FONSI for Conditional Approval of Texas program
Conditional Approval Findings
Final Approval Findings