

**TEXAS COASTAL NONPOINT PROGRAM
FINDINGS AND CONDITIONS**

FOREWORD

This document contains the findings for the coastal nonpoint pollution control program submitted by the State of Texas pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The findings are based on a review of the Texas Coastal Nonpoint Program Submittal, December 1998, and supplemental material provided by Texas subsequent to the program submittal. The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) reviewed this information and evaluated the extent to which it conforms with the requirements of CZARA.

NOAA and EPA commend Texas on the substantial amount of time and effort put into developing the program, and we appreciate the commitment the State of Texas has shown to complete an ambitious task with limited resources. We will continue to work with Texas to ensure that these findings represent an accurate assessment of current state capabilities and efforts to address coastal nonpoint source pollution.

APPROVAL DECISION

NOAA and EPA approve the coastal nonpoint pollution control program submitted by the State of Texas pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990, subject to certain conditions.

This document provides the specific findings used by NOAA and EPA as the basis for the decision to approve the Texas program. It also provides the rationale for the findings and includes conditions that will need to be met for Texas to receive final approval of its program. The time frames associated with conditions become effective on the date of the approval letter for these findings.

INTRODUCTION

This document is organized by the major nonpoint source categories and subcategories identified in the section 6217(g) guidance and the administrative elements identified in the program guidance (including the boundary for the 6217 management area). Where appropriate, NOAA and EPA have grouped categories and subcategories of management measures into a single finding. The structure of each finding follows a standard format. Generally, the finding is that the State program includes or does not include management measures in conformity with the (g) guidance and includes or does not include enforceable policies and mechanisms to ensure implementation. For further understanding of terms in this document, the reader is referred to the following:

Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (EPA, January 1993)

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance (NOAA and EPA, January 1993)

Flexibility for State Coastal Nonpoint Programs (NOAA and EPA, March 1995)

Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) (NOAA and EPA, October 1998)

The references in this document refer to the Texas Coastal Nonpoint Source Pollution Control Program Submittal, December 1998 (“program submittal”). NOAA and EPA have written this document as succinctly as possible. We have relied upon, but do not repeat here, the extensive information that the State has included in its program submittal and material provided by Texas subsequent to the program submittal. Further information and analysis is contained in the administrative record for this approval decision and may be reviewed by interested parties at the following locations:

EPA/Office of Wetlands, Oceans and Watersheds
Assessment & Watershed Protection Division
Nonpoint Source Control Branch
401 M St., SW (4503-F)
Washington, DC 20460
Contact: Don Wayne (202/566-1170)

NOAA Ocean Service/Office of Ocean and Coastal Resource Management
Coastal Programs Division
SSMC-4, N/ORM3
1305 East-West Highway
Silver Spring, MD 20910
Contact: Josh Lott (301/713-3155, x178)

EPA Region 6
6WQ-EM
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
Contact: Barbara Keeler (214/665-6698)

I. BOUNDARY

FINDING: The 6217 management area proposed by Texas is 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.

RATIONALE: Texas has proposed a 6217 management area smaller than that recommended by NOAA. The boundary is coincident with the existing coastal zone boundary, which is based upon the Oil Spill Prevention and Response Act (OSPRA) line but also encompasses additional lands landward of the OSPRA line, generally within one mile of tidal rivers. The OSPRA line, also referred to as the coastal facilities designation line, was drawn to delineate inland areas that might generate water pollution threats to coastal waters. The OSPRA line was chosen as the general boundary for the Texas Coastal Management Program (CMP) in 1995 after an extensive, multi-year review of land and water uses that could reasonably be expected to have significant impact on Texas coastal waters.

In 1992, at the request of the Coastal Coordination Council's Executive Committee, an interagency work group of biologists, geologists, hydrologists, and attorneys representing the member agencies of the State Agency Task Force was formed to research and recommend boundary options for the CMP within a 33-county planning area. The work group evaluated the planning area to determine the location of coastal natural resource areas (CNRAs) and the types and locations of activities having adverse effects on CNRAs. Based on the information provided by the interagency work group, the Council adopted an inland program boundary encompassing the 19 first-tier counties with tidewater influence. Through this analysis, the State presents the case that the proposed 6217 management area encompasses an area sufficient to protect Texas coastal waters from activities that would have significant impact.

The Coastal Coordination Council, the body responsible for implementation of the coastal nonpoint pollution control program, will monitor the progress of coastal nonpoint program implementation, including an ongoing evaluation of existing and future land and water use impacts. If such evaluation indicates that activities within coastal watersheds but outside of the State's 6217 management area are significantly impacting coastal waters, the State will extend the management area inland to address these sources. In addition, the Council will monitor the effectiveness of the other "networked" nonpoint source programs (such as the Section 319 Program) within a "Supplemental Planning Area" that encompasses the 33 counties contained within the coastal watersheds. The Council will evaluate whether these programs have adequately addressed actual and potential nonpoint pollution sources in the Supplemental Planning Area. The Council's evaluation of the effectiveness of the networked programs in the Supplemental Planning Area will be included in the Council's 5-year Progress Report to NOAA and EPA. Based on its evaluation, when developing the subsequent 5-year implementation plan, the Council will determine whether any additional management measures need to be

implemented and how such management measures should be applied within the larger 33 county Supplemental Planning Area.

II. AGRICULTURE

FINDING: The Texas program includes management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary; a description of the voluntary or incentive-based programs the State will use to encourage implementation of the agricultural management measures; a description of the mechanism or process linking the implementing agency with the enforcement agency; and a commitment to use the enforcement authority where necessary. Texas has requested a sub-categorical exclusion of dryland rowcrop agriculture for those portions of the 6217 management area within Kleberg, Nueces, and San Patricio counties. NOAA and EPA have requested that Texas provide additional information and the State is initiating work to address the issue.

RATIONALE: In 1993 the Texas Legislature passed Senate Bill 503, the Water Quality Management Plan (WQMP) Program, which designated the Texas State Soil and Water Conservation Board (TSSWCB), one of the networked agencies in the Texas CZM program, as the lead agency to control agricultural and forestry nonpoint source pollution in Texas. In 1999 the State of Texas Agricultural/Silvicultural Nonpoint Source Management Program was modified and now is incorporated into one plan for the State. The 1999 State of Texas Nonpoint Source Assessment and Management Program addresses all nonpoint source impacts on a watershed basis.

Texas implements the agricultural management measures through a voluntary Water Quality Management Plan (WQMP) certification program (SB 503 Water Quality Management Plan Program, TX Agricultural Code 201.026). The WQMPs encompass all aspects of agricultural and silvicultural production on a given operating unit. Best management practices (BMPs) in conformity with the 6217 (g) management measures (and based upon the NRCS Field Office Technical Guide) provide the basis for certification of WQMPs. Under this program, producers are eligible for cost-share assistance to aid in implementing WQMPs. SB 503 also has a complaint resolution process that can lead to corrective actions.

The TSSWCB is responsible for certifying WQMPs. As described in the program submittal, "Approval and certification by the TSSWCB along with the implementation of the plan into the farm or ranch operation provides the producer with equivalent of a permit for a point source discharge." To date, a total of 3,554 WQMPs have been certified statewide – of these, 762 were in the coastal zone. In addition, the TSSWCB has investigated 157 complaints, of which 77 were deemed valid. Forty-six WQMPs were developed to correct violations, 20 minor modifications were made, and 11 referrals were made to the Texas Commission on Environmental Quality (TCEQ – formerly the Texas Natural Resources Conservation Commission) for additional enforcement. The TSSWCB maintains two offices in the coastal zone to assist with implementation of this program. Annual status reviews are conducted on ten percent of all active WQMPs to verify compliance. Less than one percent of WQMPs developed were the result of complaints.

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Section 26.121 of the Texas Water Code is proposed as a primary as well as back-up authority for the prevention and abatement of agricultural pollution. Based on the legal opinion provided by Texas, this authority can be used in conjunction with general permits under section 26.040 and/or orders under section 26.019 to address activities (on an individual as well as a cumulative basis) that pose a threat to water quality.

The Texas legal opinion states that, “In an area that the TSSWCB identifies as having or having *the potential to* develop water quality problems due to agricultural or silvicultural nonpoint source pollution or an area within the state’s coastal management program boundary...the TSSWCB is responsible for establishing a water quality management plan certification program that provides...for the development, supervision, and monitoring of individual water quality management plans for agricultural and silvicultural lands.” (emphasis added)

The Texas Department of Agriculture (TDA) is the State’s lead agency responsible for agricultural pesticide regulation. The Texas pesticide and herbicide laws grant TDA the authority to enforce the provisions of the law pertaining to the registration, distribution, and use of all agricultural pesticides. TDA is responsible for enforcement of federal pesticide laws under a cooperative agreement with the EPA.

Texas is seeking an exclusion for dryland rowcrop agriculture for the portions of the 6217 Management Area within Kleberg, Nueces, and San Patricio counties. Texas is basing the exclusion request on (1) the climate, soils, and topography within the area; (2) two applied research project monitoring edge-of-field runoff which found negligible amounts of nutrients and pesticides leaving the fields (references cited in Appendix A under Texas submittals); and (3) water quality characterization reports, 305(b) assessments, and the 1998 303(d) list, which indicate no water quality impairments attributable to dryland rowcrop agriculture. Based on the information provided to date, NOAA and EPA do not have sufficient data on which to base a decision. NOAA and EPA understand that the Texas General Land Office is in the process of contracting with a coastal ecologist to provide an ecological analysis of the impacts and trends of nutrient loading rates and effects on water quality in the proposed exclusion area. Once the results of this study are available and peer reviewed, we will further discuss the exclusion proposal and decide whether sufficient justification for the request has been provided.

III. FORESTRY

FINDING: The Texas program includes management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary; a description of the voluntary or incentive-based programs the State will use to encourage implementation of the forestry management measures; a description of the mechanism or process linking the implementing agency with the enforcement agency; and a commitment to use the enforcement authority where necessary.

RATIONALE: Texas has more than 23,000,000 acres of land that is forested. Half of this area, roughly 11.8 million acres, lies in East Texas and is considered to be commercial timberland capable of growing timber crops. Approximately 46 percent of land in the coastal zone is agricultural, and less than 2 percent is used for forestry.

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The State of Texas Agricultural/Silvicultural Nonpoint Source Management Program is the primary program used to implement the forestry management measures. Texas implements the forestry management measures through certification of WQMPs (see above discussion under Agriculture) pursuant to SB 503; TX Agricultural Code 201.026, administered by the TSSWCB. Individual growers receive approval and certification by the TSSWCB for a set of Texas Forest Service (TFS) forestry BMPs which are in conformity with the (g) management measures. Annual status reviews are conducted to verify compliance. Foresters are eligible for cost-share assistance to aid in implementing WQMPs.

The Texas Forest Service's nonpoint source pollution prevention program promotes and monitors the use of voluntary best management practices in forestry operations throughout East Texas. Monitoring data supplied by the TFS shows that 87 percent of producers have adopted BMPs. On forest land owned by the forest industry, implementation of BMPs is 98 percent. Approximately 80 percent of the timber harvested in the 6217 management area comes from logging contractors trained in BMPs. The effectiveness of these programs in reducing nonpoint source pollution from forestry operations is demonstrated by the fact that not a single water body segment on the State's 303(d) list has an impairment due to forestry activity. The program has won the Governor's Clean Texas 2000 Environmental Excellence Award (a state water quality award) for its effective implementation of BMPs and highly successful cooperation among various groups and agencies.

As described above for agriculture, Section 26.121 of the Texas Water Code is proposed as a primary as well as back-up authority for the prevention and abatement of pollution from forestry. The TSSWCB investigates water quality complaints when forestry is the suspected cause and refers cases to the TCEQ for enforcement when a producer fails to take the prescribed corrective action. Those who refuse or fail to implement a corrective action plan, or those who are found to be out of compliance with a corrective action, are subject to enforcement action by TCEQ under Section 26.121. This mechanism is delineated in a 1997 Memorandum of Agreement between the TSSWCB and TCEQ. The TSSWCB maintains two regional offices in the coastal area to provide technical assistance and aid in the implementation of the program.

The Texas legal opinion states that, "In an area that the TSSWCB identifies as having or having *the potential to* develop water quality problems due to agricultural or silvicultural nonpoint source pollution or an area within the state's coastal management program boundary...the TSSWCB is responsible for establishing a water quality management plan certification program that provides...for the development, supervision, and monitoring of individual water quality management plans for agricultural and silvicultural lands." (emphasis added)

IV. URBAN

The Texas program submittal lists each of the urban management measures, including verbatim excerpts from the (g) guidance describing the requirements for each measure. Following each management measure is a list of State programs that apply. This list of programs is virtually identical for each of the management measures – it includes Watershed Action Plans, Texas Department of Transportation Guidance Documents, Model Local NPS Programs and Ordinances, cites to sections 26.177 and 26.121 of the Texas Code, and the National Pollutant

Discharge Elimination System (NPDES) Program. In order to simplify the Findings for these measures, NOAA and EPA have grouped several of the management measures and focused the rationale on programs most relevant to meeting those measures.

A. NEW DEVELOPMENT and EXISTING DEVELOPMENT

FINDING: The Texas program does not include management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, but has not adequately described its voluntary or incentive-based programs the State will use to encourage implementation of the new development and site development management measures, its description of the mechanism or process linking the implementing agency with the enforcement agency, and its commitment to use the enforcement authority where necessary.

CONDITION: Within two years, Texas will include in its program management measures in conformity with the 6217(g) guidance for new development and site development. Within two years, Texas will adequately strengthen its description of the voluntary or incentive-based programs the State will use to encourage implementation of the new development and site development management measures, its description of the mechanism or process linking the implementing agency with the enforcement agency, and its commitment to use the enforcement authority where necessary. In the alternative, within two years, the state will finalize its Texas Pollutant Discharge Elimination System (TPDES) rules to ensure that TPDES permits are required throughout the 6217 management area not covered by NPDES permits.

RATIONALE: Texas submitted additional information subsequent to the issuance of the September 2001 Draft 6217 Findings which outlines several measures which have been, or will be, taken to implement the management measures. Texas is developing enforceable policies and mechanisms through the Phase II TPDES stormwater program. The state is developing criteria by rule which will require urbanized areas, not specifically identified by population data, to be required to obtain permit coverage. These criteria will be consistent with the NPDES federal rules. If Texas can demonstrate to NOAA and EPA that all areas of the 6217 management area are covered by the state-based TPDES stormwater permits and federal NPDES stormwater permits, then the condition will be met.

In addition to the proposed permitting requirement, Texas is developing voluntary, incentive based programs to address the conditions. For instance, TCEQ has established small business and local government assistance staff in each of its regional offices, including ones which cover the entire coastal zone. TCEQ plans to fund activities of outreach and technical assistance to local governments, to encourage the adoption of ordinances to control urban nonpoint pollution, as described in the Nonpoint Source Book. The Texas Nonpoint Sourcebook (<http://www.txnpsbook.org/>) provides detailed information on BMPs, implementation strategies, funding mechanisms, and strategies for measuring program effectiveness in compliance with the 6217 (g) guidance. The same staff will also carry out similar activities to encourage adoption of TxDOT Storm Water Management Guidelines for Construction Activities by local governments relating to non-TxDOT jurisdiction road and highway projects. The Texas Coastal Watershed Program (TCWP), an effort between the Texas Sea Grant College Program and Texas Cooperative Extension, was recently recognized and funded as a new entrant into the Nonpoint

Source Education for Municipal Officials (NEMO) network of states engaged in outreach to local decision makers on nonpoint sources issues. TCEQ is seeking cooperative outreach opportunities with the TCWP. The GLO and Coastal Coordination Council (CCC) will partner to establish a recognition program for participating governments. Finally, TCEQ plans to track implementation efforts (number of activities and number of local governments implementing management measures) for reporting to NOAA and EPA. Although the proposed TPDES permitting requirements in combination with NPDES coverage alone would satisfy the condition, NOAA and EPA encourage Texas to pursue the various voluntary, incentive-based programs outlined above as well.

B. SITE DEVELOPMENT

FINDING: The Texas program does not include management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary, but has not adequately described its voluntary or incentive-based programs the State will use to encourage implementation of the site development management measure, the mechanism or process linking the implementing agency with the enforcement agency, and its commitment to use the existing enforcement authorities where necessary.

CONDITION: Within two years, Texas will include in its program management measures in conformity with the 6217(g) guidance for site development. Within two years, Texas will provide an adequate description of the voluntary or incentive-based programs the State will use to encourage implementation of the site development management measure, the mechanism or process linking the implementing agency with the enforcement agency, and the commitment to use the existing enforcement authorities where necessary.

RATIONALE: Texas submitted additional information subsequent to the issuance of the September 2001 Draft 6217 Findings which outlines several measures which have been, or will be, taken to implement the site development management measure. For instance, TCEQ has established small business and local government assistance staff in each of its regional offices, including ones which cover the entire coastal zone. TCEQ plans to fund activities of outreach and technical assistance to local governments, to encourage the adoption of ordinances to control urban nonpoint pollution, as described in the Nonpoint Source Book. The Texas Nonpoint Sourcebook (<http://www.txnpsbook.org/>) provides detailed information on BMPs, implementation strategies, funding mechanisms, and strategies for measuring program effectiveness in compliance with the 6217 (g) guidance. The same staff will also carry out similar activities to encourage adoption of TxDOT guidance by local governments relating to non-TxDOT jurisdiction road and highway projects. The Texas Coastal Watershed Program (TCWP) was recently recognized and funded as a new entrant into the Nonpoint Source Education for Municipal Officials (NEMO) network of states engaged in outreach to local decision makers on nonpoint sources issues. TCEQ is seeking cooperative outreach opportunities with the TCWP. The GLO and Coastal Coordination Council (CCC) will partner to establish a recognition program for participating governments. Finally, TCEQ plans to track implementation efforts (number of activities and number of local governments implementing management measures) for reporting to NOAA and EPA. NOAA and EPA encourage Texas to

implement all of these efforts in order to meet the condition for the site development management measure.

Texas Water Code Sec. 26.177 and Sec. 26.121 are proposed as the State's enforcement authority. Section 26.177 of the Texas Water Code is a regulatory program with a built-in enforcement mechanism. It can be used as a stand-alone program to address water pollution problems in urban areas, or it can be used as a backup enforcement authority for other programs in the State. These authorities, along with the legal opinion provided by Texas, demonstrate that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary.

C. WATERSHED PROTECTION

FINDING: The Texas program does not include management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary, but has not adequately described its voluntary or incentive-based programs the State will use to encourage implementation of the watershed protection management measure, the mechanism or process linking the implementing agency with the enforcement agency, and its commitment to use the existing enforcement authorities where necessary.

CONDITION: Within two years, Texas will include in its program management measures in conformity with the 6217(g) guidance for watershed protection. Within two years, Texas will provide an adequate description of the voluntary or incentive-based programs the State will use to encourage implementation of the watershed protection management measure, the mechanism or process linking the implementing agency with the enforcement agency, and the commitment to use the existing enforcement authorities where necessary.

RATIONALE: Most of the guidance documents proposed for use in addressing this management measure apply to individual construction sites and do not establish an overall plan for identifying and preserving watershed areas for protection. These measures are intended to provide general goals for States and local governments to use in developing comprehensive programs for guiding future development and land use activities in a manner that will prevent and mitigate the effects of nonpoint source pollution. Watershed Action Plans are developed as part of the TMDL process for impaired water bodies on the 303(d) list, and are intended to be used to address impaired water bodies, rather than to prevent potential sources of nonpoint pollution. TxDOT Guidance Documents call for identification and consideration of water pollution sensitive areas when selecting route locations and establishing control measures, but these apply only to road, highway, and bridge construction projects under TxDOT jurisdiction and not all other existing development and road, highway, and bridge construction projects not under TxDOT jurisdiction.

Texas should be commended for its effort in developing a Memorandum of Agreement between the Texas Parks and Wildlife Department (TPWD) and TxDOT which allows TPWD to have active input into TxDOT activities which threaten fish and wildlife habitat. NOAA and EPA believe that this is an important step in addressing these management measures and encourage

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Texas to seek out other opportunities for other resource agencies to provide input in protecting critical areas that provide important water quality benefits.

The model local nonpoint source programs and ordinances, which are still under development, were not provided for review and therefore a determination as to whether they address the management measures could not be made. Provided these ordinances contain appropriate provisions for identifying pollution reduction opportunities and establishing watershed protection plans at the local level, and there is a plan to ensure that model ordinances will be adopted by other municipalities, these could be used to address the management measure.

Texas submitted additional information subsequent to the issuance of the September 2001 Draft 6217 Findings which outlines several measures which have been, or will be, taken to implement the watershed protection management measure. These include: ongoing efforts to identify sensitive watersheds including the use of Geographic Information System (GIS) tools to map sensitive areas, recent state legislation requiring regional water planning groups to identify ecologically sensitive areas that should not be developed as part of the state water plan, and the TCWP development of critical watershed related GIS products to incorporate into its NEMO projects. The small business and local government assistance staff in each of the TCEQ regional offices will carry out activities of outreach and technical assistance to local governments to encourage the preservation of watersheds, and TCEQ regional staff will encourage the adoption of TxDOT guidance by local governments on non-TxDOT jurisdiction road and highway projects. The GLO and CCC will partner to establish a recognition program for participating governments, and the CCC will encourage and support local governments to erect road signs at watershed boundaries to increase awareness of the connection between neighborhoods, land use, and waterways. The TCEQ will utilize its existing policies for supplemental environmental projects (SEPs) to implement urban watershed protection efforts. SEPs offer alternatives to payment of administrative penalties to violators of agency requirements who are under enforcement. To promote implementation of the (g) measures, violators within the 6217 management area could potentially fund identified watershed preservation activities that are local priorities. Finally, TCEQ proposes to track implementation efforts (number of activities, number of local governments implementing management measures) for future reporting to NOAA and EPA. NOAA and EPA believe that, once implemented, the combination of all of these efforts could address the condition. In particular, NOAA and EPA are interested in obtaining the specific language in recent state legislation requiring regional water planning groups to identify ecologically sensitive areas that should not be developed as part of the state water plan. If the language in the legislation requires actions in conformity with the (g) guidance, and is implemented throughout the 6217 management area, this action could satisfy the condition.

**D. CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL and
CONSTRUCTION SITE CHEMICAL CONTROL**

FINDING AND RATIONALE: State coastal nonpoint pollution control programs are not required to include the Construction Site Erosion and Sediment Control and Construction Site Chemical Control Management Measures because the National Pollutant Discharge Elimination System (NPDES) storm water regulations for industrial activities on construction sites of one acre or greater apply nationwide and therefore throughout the coastal management areas of states and territories.

E. NEW AND OPERATING ONSITE DISPOSAL SYSTEMS (OSDS)

FINDING: The Texas program includes management measures in conformity with the 6217(g) guidance except it does not include a measure for 1) inspecting OSDS at a frequency adequate to ascertain whether OSDS are failing or 2) replacing or upgrading OSDS near nitrogen-limited surface waters. The State's program includes enforceable policies and mechanisms to ensure implementation throughout the management area.

CONDITION: Within two years, Texas will include in its program management measures for inspection of existing OSDS and replacing or upgrading OSDS near nitrogen-limited surface waters in conformity with the 6217(g) guidance.

RATIONALE: Texas proposes to use the General Land Office (GLO) Beachfront Construction Regulations and the TCEQ On-Site Wastewater Program, which establishes standards for installation and maintenance of On-Site Disposal Systems (OSDS), to address these management measures. The GLO Beachfront Construction Regulations require minimum setbacks from Gulf beaches by prohibiting any part of the system from being located seaward of the structures they service. The TCEQ On-Site Wastewater Program establishes standards for installation of On-Site Sewage Facilities (OSSFs) and outlines licensing and educational requirements for installers. The TCEQ adopted rules (30 TAC Chapter 285) to provide minimum levels of acceptable criteria to ensure that the proper on site sewage facilities will be installed in the State in order to eliminate and prevent health hazards for the public and the waters of the State. For instance, the State has a minimum required separation distance from lakes, rivers, or salt water bodies.

Chapter 366 of the Texas Health and Safety Code authorizes the TCEQ to regulate the on-site wastewater program for the State of Texas and to develop minimum standards, which are set forth in 30 TAC Chapter 285. The State has the ability to require a property owner to repair a malfunctioning OSDS (Texas Health and Safety Code 366.017). The property owner may be assessed a penalty for each day the system remains unrepaired.

There are no phosphorus or nitrogen reduction standards or requirements in the OSSF rules for periodic inspections to determine if failing systems exist, other than for nonstandard systems, which are required to be inspected every four months to ensure that they are functioning properly. Although appropriate measures to reduce or to eliminate OSDS impacts may occur if they are identified as the cause of water quality impairments, there is no language in the rules to indicate how that will occur.

Texas submitted additional information subsequent to the issuance of the September 2001 Draft 6217 Findings which outlines several measures which have been or will be taken to implement the onsite disposal systems management measures. NOAA and EPA commend Texas for taking steps to work with the Texas Real Estate Commission to develop a disclosure form that local real estate agents are required to use when properties with existing OSDS are sold. The form specifically requires a seller to attest that specific components of an OSDS are functioning properly and not failing. A seller would risk a private civil suit if information was untrue. However, this does not ensure that systems are inspected. Mortgage lenders are also requiring

inspections of OSDS and requiring documentation that any required system inspections have occurred as a step in the process of financing home purchases where an OSDS is used for sewage disposal, but there is no state rule or non-regulatory state program that works with the mortgage lenders to ensure systems are inspected at point of sale.

F. POLLUTION PROTECTION

FINDING: Texas's program includes management measures in conformity with the 6217(g) guidance.

RATIONALE: Texas has a variety of pollution prevention and education programs including TCEQ's Office of Pollution Prevention and Recycling (OPPR) pollution prevention workshops, the Clean Industries 2000 program, the Lake and River Cleanup Program, Texas Recycles Day, Clean Star Texas, OPPR's Clean Cities 2000, Household Hazardous Waste Collection, NPS Video for the Clean Texas Reporter, Governor's Award for Environmental Excellence, OPPR Resource Documents, and the Galveston Bay and Coastal Bend Bays Estuaries Programs public education and outreach programs.

G. ROADS, HIGHWAYS, AND BRIDGES - MANAGEMENT MEASURES FOR CONSTRUCTION PROJECTS AND CONSTRUCTION SITE CHEMICAL CONTROL

FINDING AND RATIONALE: State coastal nonpoint pollution control programs are not required to include the Roads, Highways, and Bridges - Construction Projects and Construction Site Chemical Control Management Measures because the National Pollutant Discharge Elimination System (NPDES) storm water regulations for industrial activities on construction sites of one acre or greater apply nationwide and therefore throughout the coastal management areas of states and territories.

H. ROADS, HIGHWAYS, AND BRIDGES - MANAGEMENT MEASURES FOR PLANNING, SITING, AND DEVELOPING ROADS AND HIGHWAYS; BRIDGES; OPERATION AND MAINTENANCE; AND RUNOFF SYSTEMS

FINDING: The Texas program includes management measures in conformity with the 6217(g) guidance only for roads, highways, and bridges under TxDOT jurisdiction. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary; a description of the voluntary or incentive-based programs the State will use to encourage implementation of the roads, highways and bridges management measures; a description of the mechanism or process linking the implementing agency with the enforcement agency; and a commitment to use the enforcement authority where necessary. Texas is not required to include the Road, Highway, and Bridge Operation and Maintenance and Runoff Systems Management Measures for any road, highway and bridge operation and maintenance and road, highway and bridge runoff systems in urbanized areas subject to Phase I or Phase II NPDES MS4 permits.

CONDITION: Within two years, Texas will include in its program management measures in conformity with the 6217(g) guidance for roads, highways and bridges outside of TxDOT jurisdiction.

RATIONALE: TxDOT Guidance Documents, including the Storm Water Management Guidelines for Construction Activities, apply only to roads, highways and bridges under TxDOT jurisdiction, and exclude all other roads, highways and bridges. Within the 18 coastal counties there are approximately 7432 miles of road that are maintained by the counties outside of the jurisdiction of TxDOT. TxDOT has stated that it has no intention to require any other entities to implement the measures in the TxDOT Guidance Documents. No information was available on roads maintained by other agencies and private corporations, other than counties, that fall outside of TxDOT jurisdiction, and no evidence was provided that local entities, including counties, responsible for road construction and maintenance are implementing management measures in compliance with the 6217(g) guidance.

NOAA and EPA commend Texas for development of a memorandum of agreement between the Texas Parks and Wildlife Department (TPWD) and TxDOT which allows the TPWD to have active input into TxDOT activities which threaten habitat of fish and wildlife, and recommend that the State seek means to implement similar efforts outside of TxDOT jurisdiction.

NOAA and EPA encourage Texas to continue to pursue efforts to provide technical assistance through a pilot training program for representatives responsible for the planning, siting, and development of local roads and bridges outside of TxDOT jurisdiction. In addition, the State of Texas, in cooperation with the Texas Transportation Institute of Texas A&M University is developing a program for training local governments in the best management practices for road construction and maintenance. Together, these programs would help to implement management measures for roads, highways and bridges in the 6217 management area outside the authority of TxDOT.

V. MARINAS AND RECREATIONAL BOATING

FINDING: Texas's program includes management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary, a description of the voluntary or incentive-based programs the State will use to encourage implementation of the marinas management measures; a description of the mechanism or process linking the implementing agency with the enforcement agency; and a commitment to use the enforcement authority where necessary.

RATIONALE: Texas achieves the requirements of management measures for marinas and recreational boating through a combination of regulatory authorities and voluntary programs. The Texas General Land Office manages all state-owned submerged lands and has special lease conditions for construction of marinas, piers, docks and other waterfront structures that are in conformity with the (g) guidance (Texas NAT. RES. CODE ANN. 33.2053(a)(3), (5), (7), (8), and (9)). Prior to issuing a lease, the GLO has the authority to detail specific conditions to be met to ensure water quality for marina flushing and water quality assessment, habitat protection, and erosion control for shoreline stabilization and protection. Specific guidelines are issued through the Coastal Permitting Assistance Program, Interagency Guidelines for Applicants.

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The Marine Association of Texas has developed a BMP manual in conformity with the (g) guidance, and provides technical assistance on storm water runoff management at hull maintenance areas and parking lots, and pollution prevention considerations for fueling station design. Through its Marine Advisory Service, the Sea Grant program provides assistance and educational materials on sanitary devices and pumpout facilities. Recycling for A Cleaner Marine Environment BMP manual is also being distributed to marinas statewide.

The Coastal Coordination Council, in coordination with Sea Grant, has begun to implement a Clean Marina Program modeled after programs in Florida and Maryland. The pilot program, which is being initiated in the Clear Lake and Corpus Christi areas with eventual expansion to the rest of the coast, includes management measures in conformity with the 6217(g) guidance.

VI. HYDROMODIFICATION

FINDING: Texas's program does not include management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary; a description of the voluntary or incentive-based programs the State will use to encourage implementation of the agricultural management measures; a description of the mechanism or process linking the implementing agency with the enforcement agency; and a commitment to use the enforcement authority where necessary.

State coastal nonpoint pollution control programs are not required to include Erosion and Sediment Control and Chemical and Pollutant Control at Dams Management Measures because the National Pollutant Discharge Elimination System (NPDES) storm water regulations for industrial activities on construction sites of one acre or greater apply nationwide and therefore throughout the coastal management areas of states and territories.

CONDITION: Within two years, Texas will include in its program management measures that are in conformity with the 6217 (g) guidance for hydromodification, other than the two dam management measures (see finding above).

RATIONALE: Many of the codes provided by the State of Texas, including Texas Water Code Chapter 51: Water Control and Improvement Districts, pertain broadly to permitting of dams, in-water construction, and rules prohibiting discharge of pollutants, but most do not have language addressing the management measures. Many are implemented by Water Districts that are overseen by a board consisting of five or more members. There are over 1300 water districts in Texas, but it is unclear how many are in the 6217 management area. NOAA and EPA recommend that Texas produce a hydromodification best management practices manual or guidebook, including measures in conformity with the 6217 (g) guidance, and distribute it, potentially through the TCEQ Handbook for Board Members of Texas Water Districts, to the water districts within the 6217 management area.

Water district directors receive copies of the TCEQ District Newsletter, which provides technical guidance, updates on new regulations, and other program changes or requirements, but Texas has not yet developed a plan for incorporation of the management measures into the Newsletter or a time frame for implementation of the management measures.

Water Control and Improvement Districts (WCIDs) do not encompass the entire geographical range of the 6217 management area. In areas outside of WCIDs, the applicable management measures are addressed by the TCEQ through state certification of U.S. Army Corps of Engineers (USACE) 404 permits and the 401 Certification process. However, in the spring of 1999 the Texas Legislature added Rider 27 to the TCEQ's FY2000-2001 biennium appropriation, requiring that the TCEQ waive its 401 certification review of Corps of Engineers 404 permits unless the review is necessary to maintain federal delegation of a program or otherwise meet a federal requirement. In compliance with this legislative mandate, the TCEQ and the Corps of Engineers, Southwestern Division, have drafted a Memorandum of Agreement in which a 404 permit application may proceed without 401 certification for those projects affecting three acres of water or 1,500 linear feet of streams or less (Tier 1 projects).

VII. WETLANDS, RIPARIAN AREAS AND VEGETATED TREATMENT SYSTEMS

FINDING: Texas's program includes management measures in conformity with the 6217(g) guidance. Texas has provided a legal opinion that the State has authority to prevent nonpoint source pollution and require implementation of management measures, as necessary, a description of the voluntary or incentive-based programs the State will use to encourage implementation of the management measures; a description of the mechanism or process linking the implementing agency with the enforcement agency; and a commitment to use the enforcement authority where necessary.

RATIONALE: The Texas program includes management measures for wetlands, riparian areas and vegetated treatment systems (VTSs) that are in conformity with the 6217 (g) guidance. The program submittal indicates a mix of regulatory authorities and voluntary incentive-based programs. Texas has set a no net loss goal concerning wetlands and has placed special emphasis on coastal wetlands and submerged seagrass meadows. Several new plans have been developed toward promoting conservation of wetland and riparian areas, including a State-owned Coastal Wetlands Conservation Plan that includes both regulatory and nonregulatory components (under development), a Seagrass Conservation Plan for Texas, Texas Coastal Wetlands: A Handbook for Local Governments, and a Wetlands Assistance Guide for Landowners that emphasizes landowner incentives and other nonregulatory programs.

From a regulatory standpoint, the General Land Office writes all leases for state-owned wetlands to match the management measures. In addition, the Wetland Reserve program (USDA), TMDL development and implementation, Section 401 Certification, Water Quality Management Plans, and Coastal Management Program Grants will be utilized to address the issues of protection and restoration on private lands in order to comply with the management measures for wetlands and riparian areas.

The CMP grants program promotes the use of VTSs by providing funding for critical areas enhancement including construction of wetlands to improve water quality. The TCEQ is working to develop a process that will allow the TCEQ to establish standards for the design and installation of constructed wetlands for on-site sewage disposal. Completion of these standards appears to be several years in the future. Also, the Texas Department of Transportation emphasizes the use of buffer zones.

VIII. ADMINISTRATIVE COORDINATION

FINDING: Texas's program includes mechanisms to improve coordination among State agencies and between State and local officials.

RATIONALE: The Texas CZM program is a networked program which relies on the networked agencies to implement the coastal nonpoint pollution control program. Several Memoranda of Agreement (MOAs) have been signed between the various agencies outlining responsibilities and roles in implementing the program. These include an MOA between the TCEQ and the Texas Department of Agriculture regarding TMDLs, an MOA between the TCEQ and the Texas Agricultural Experiment Station, Texas Agricultural Extension Service, and Texas Forest Service regarding TMDLs, an MOA between the TCEQ and the Texas State Soil and Water Conservation Board regarding TMDLs, and an MOA between TCEQ and the Texas Water Development Board regarding TMDLs.

IX. PUBLIC PARTICIPATION

FINDING: Texas's program provides opportunities for public participation in the development and implementation of the coastal nonpoint program.

RATIONALE: Texas's public participation section describes activities undertaken by Texas to provide adequate opportunity for public participation and input throughout the development of the State's coastal nonpoint pollution control program. The State has utilized its existing outreach, education, and technical assistance programs to explain the coastal nonpoint program and provide for public input and feedback. In 1997 the State set up a Coastal Nonpoint Source work group which includes a public member of the Coastal Coordination Council and representatives of the line agencies responsible for Coastal Nonpoint Program development. Basin steering committees provide the primary forum for coordinating stakeholder involvement at the basin level. Texas provided a 30-day public comment period, during which it received two comment letters.

X. TECHNICAL ASSISTANCE

FINDING: Texas has included programs that will provide technical assistance to local governments and the public for the implementation of additional management measures.

RATIONALE: Texas has a number of technical assistance programs available to the public through local governments, nonprofit organizations, and state agencies responsible for implementing the States coastal nonpoint pollution control program. The State's submittal provided listings of the key nonpoint source-related technical assistance programs, the targeted user groups, and the agencies responsible for implementation of the program.

XI. ADDITIONAL MANAGEMENT MEASURES

FINDING: Texas's program provides for the identification of additional management measures and the continuing revision of management measures applicable to critical coastal areas and

cases where section 6217(g) measures are fully implemented but water quality threats or impairments persist.

RATIONALE: The TCEQ has established a Watershed Management Approach which provides a framework for coordinating and implementing existing water quality programs through a watershed-based approach, and a Basin Management Cycle for scheduling activities and coordinating resources within each watershed. These combined approaches will be used to implement and determine the effectiveness of (g) management measures. Using a ten-year rotation schedule, Texas will evaluate all of its basins to determine the results of (g) measure implementation and water quality monitoring efforts. Based on these evaluations, appropriate additional management measures, if required, will be developed and implemented on a site-specific basis. Identification of land uses contributing to impairment will be accomplished through characterization studies by national estuary programs and others that provide data on linkages between land uses and water impairments. The Texas Coastal Preserves program has been used to designate four critical coastal areas: Welder Flats in San Antonio Bay, South Bay in Laguna Madre, and Christmas Bay and Armand Bayou in Galveston Bay. The Texas Coastal Preserves program established a precedent for interagency cooperation and illustrated that their resources are protected, conserved, and enhanced on a long-term basis. Additional management measures can be implemented through the Watershed Action Plans that are developed for all 303(d) listed waters.

XII. CRITICAL COASTAL AREAS

FINDING: The Texas program identifies and includes a process for the continuing identification of critical coastal areas adjacent to impaired and threatened coastal waters.

RATIONALE: The Texas Coastal Preserves program has been used to designate four critical coastal areas: Welder Flats in San Antonio Bay, South Bay in Laguna Madre, and Christmas Bay and Armand Bayou in Galveston Bay. The Texas Coastal Preserves program established a precedent for interagency cooperation and illustrated that their resources are protected, conserved, and enhanced on a long-term basis. Designation as preserves provides the areas with permanent protection of water quality, living resources, and human health. The designation included the development of a multi-agency approved resource management plan. This process will be encouraged for future designations of additional critical coastal areas. Due to interest in future designation of preserves, agencies and organizations such as the TCEQ, TPWD, GLO, Galveston Bay Estuary Program and Coastal Bend and Bays Estuary Program continue to collect water quality and land use characterization data.

XIII. MONITORING

FINDING: Texas's program includes a plan to assess over time the success of the management measures in reducing pollution loads and improving water quality.

RATIONALE: In addition to the Watershed Management Approach, there are several agencies and organizations involved in both regional and statewide water quality monitoring efforts. The TCEQ maintains 352 stations, the USGS maintains 73 stations, and by contact with regional water control agencies, 905 stations are maintained. In addition, Texas has a Clean Rivers

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Program which creates partnerships between local water quality agencies and state and local funding sources to monitor and assess water quality.

XIV. APPENDIX A

List of references supplied by NOAA and EPA regarding water quality in the proposed dryland rowcrop exclusion area.

Alexander, Richard B., R.A. Smith, G.E. Schwarz, S.D. Preston, J.W. Brakebill, R. Srinivasan, and P.A. Pacheco. 2001. Atmospheric nitrogen flux from the watersheds of major estuaries of the United States: an application of the SPARROW watershed model. In Valigura, Richard A. et al. (eds.). *Nitrogen Loading in Coastal Water Bodies: An Atmospheric Perspective*. American Geophysical Union, Washington, DC. p. 119-170.

Baird, Charles et al. 1996. Characterization of Nonpoint Sources and Loadings to Corpus Christi Bay National Estuary Program Study Area. Corpus Christi Bay National Estuary Program CCBNEP-05. p. 73.

Bricker, Suzanne B., C.G. Clement, D.E. Pirhalla, S.P. Orlando, D.R.G. Farrow. 1999. National Estuarine Eutrophication Assessment: Effects of Nutrient Enrichment in the Nation's Estuaries. NOAA National Ocean Service, Silver Spring, MD. 71 pp.

Castro, Mark S, C.T. Driscoll, T.E. Jordan, W.G. Reay, W.R. Boynton, S.P. Seitzinger, R.V. Styles, and J.E. Cable. 2001. Contribution of atmospheric deposition to the total nitrogen loads to thirty-four estuaries on the Atlantic and Gulf Coasts of the United States. In Valigura, Richard A. et al. (eds.). *Nitrogen Loading in Coastal Water Bodies: An Atmospheric Perspective*. American Geophysical Union, Washington, DC. p. 77-106.

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List of references supplied by Texas regarding water quality in the proposed dryland rowcrop exclusion area.

Eddleman, Bobby R. and Larry Falconer. 2000. Assessment of surface runoff water quality from agricultural croplands in the Odem Ranch watershed. Corpus Christi Bay National Estuary Program CCBNEP-34. February 2000. 136 pp.

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