

SUPPLEMENT TO THE DECISION DOCUMENT FOR NATIONWIDE PERMIT 21

This document is a supplement to the national decision document for Nationwide Permit (NWP) 21, and addresses the regional modifications and conditions for this NWP in the State of Texas. In the State of Texas, the Galveston District is the lead district, and the Albuquerque, Fort Worth and Tulsa Districts also implement the NWP program in this state. While Fort Worth, Galveston and Tulsa Districts are in the Southwestern Division, Albuquerque District is in the South Pacific Division. The Southwestern and South Pacific Division Engineers have considered the potential individual and cumulative adverse environmental effects that could result from the use of this NWP in Texas, including the need for additional modifications of this NWP by imposing regional conditions to ensure that those individual and cumulative adverse environmental effects are no more than minimal. The Division Engineers have also considered the exclusion of this NWP from certain geographic areas or specific waterbodies. These regional conditions are necessary to address important regional issues relating to jurisdictional waters and wetlands. These regional issues are identified in this document. These regional conditions are being required to ensure that this NWP authorizes activities that result in no more than minimal individual or cumulative adverse environmental effects. This document also identifies regionally important high-value waters and other geographic areas in which this NWP should be regionally conditioned or excluded from NWP eligibility, as described below, to further ensure that the NWP does not authorize activities that may exceed the no more than minimal adverse effects threshold.

1.0 Background

In the June 1, 2016, issue of the Federal Register (81 FR 35186), the U.S. Army Corps of Engineers (Corps) published its proposal to reissue 50 existing NWPs and issue two new NWPs. To solicit comments on its proposed regional conditions for these NWPs, the Galveston District, as the lead District, issued a public notice on June 7, 2016 and a subsequent public notice on January 12, 2017 for regional conditions that affect the State of Texas. The Galveston District also held an Interagency Meeting on July 13, 2016 for all federal and state resource agencies to discuss proposed Texas regional conditions. Additionally, the Districts mailed a full copy of the proposed 2017 NWPs on June 2, 2016 to each of the Recognized Tribes having prehistoric affiliation, historic tribes or aboriginal use in the State of Texas. The issuance of the NWPs was announced in the January 6, 2017, Federal Register notice (82 FR 1860). After the publication of the final NWPs, Corps Districts with regulatory jurisdiction in Texas collectively considered the need for regional conditions for this NWP. Their findings are discussed below.

2.0 Consideration of Public Comments

In response to our two public notices, we received comments from Region 6 of the Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), Texas Parks and Wildlife Department (TPWD), Texas Commission on Environmental Quality (TCEQ), Texas Department of Transportation (TxDOT), Sierra Club, Texas Pipeline Association, Freese and Nichols Inc., Perennial Environmental Services, LLC, GPA Midstream Association, and W&M Environmental Group. In this section, Section 2.1 includes general comments from both public notices. Section 2.2 addresses comments specific to the regional conditions and includes the regional conditions published in the second public notice. Comments from both public notices are included and have been categorized in relation to the appropriate issue or topics addressed in the proposed regional conditions included in the second public notice.

2.1 General Comments

2.1.1 NWP 5 – Scientific Measuring Devices

The EPA's July 22, 2016 letter recommended that scientific measuring devices and any structures or fills associated with the devices must be completely removed within 30 days upon completion of the use of the device to measure and record scientific data and the site restored. The quantity of discharged material and the volume of area excavated must not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line.

Response: NWP 5 requires removal and restoration of the site to pre-construction contours upon completion of use. To set an arbitrary 30-day requirement would preclude seasonal restrictions intended to minimize or avoid impacts to such environmental concerns as threatened and endangered species, migratory birds, or the life cycle of fishes protected. With the exception of flumes and weirs associated with these devices, which are already limited to 25 cubic yards of discharge, we believe the excavation and/or discharges associated with the temporary impacts associated with these devices does not constitute a more than minimal adverse impact.

2.1.2 NWP 7 – Outfall structures and Associated Intake Structures

The EPA's July 22, 2016 letter recommended that screening over the mouth of associated intake structures shall have a mesh size no larger than 2 mm; Intake structure velocities shall not exceed 0.5 feet per second; The intake structure shall be positioned to minimize impingement/entrainment of sensitive life stages of aquatic species, e.g., recessed away from the waterway, positioned perpendicular to the predominant direction of flow.

Response: NWP 7 requires preconstruction notice in accordance with General Condition 32 and prohibits the authorization of intake structures unless they are associated with National Pollutant Discharge Elimination System (NPDES) approved

outfall structures. Rather than establish general requirements in a regional condition, we will evaluate proposed intake structures on a case-by-case basis in accordance with General Condition 2 Aquatic Life Movements.

2.1.3 NWP 10 – Mooring Buoys

The EPA's July 22, 2016 letter recommended the Corps prohibit mooring buoys in areas mapped as seagrass habitat.

Response: Activities authorized by NWP 10 do not result in losses of aquatic resources and, as a general rule, do not require compensatory mitigation. Mooring buoys are generally located in open waters and float on those waters; the anchor used to secure the mooring buoy occupies little of the bottom of the waterbody. We have also considered that mooring buoys can help reduce the adverse effects the use of vessels can have on bottom habitat of navigable waters by reducing the use of anchors that disturb bottom habitat each time they are used. We recognize the potential that improperly placed mooring buoys may result in more than minimal adverse environmental effects to sea grasses, coral reefs, and oyster reefs. We have developed Regional Condition 18 which will require the pre-construction notification in vegetated shallows and coral reefs, including oyster reefs, as defined in 40 CFR 230.43 and in 40 CFR 230.44 respectively.

2.1.4 NWP 11 – Temporary Recreational Structures

The EPA's July 22, 2016 letter recommended we prohibit the placement of any temporary structures in any areas mapped with seagrasses.

Response: As discussed above, we recognize the potential that improperly placed temporary structures may result in more than minimal adverse environmental effects so we have included NWP 11 with NWP 10 in Regional Condition 18.

2.1.5 NWP 13 – Bank Stabilization

The EPA's July 22, 2016 letter recommended that any requests to waive the 500 linear foot limitation for the intermittent and ephemeral streams must include: 1) A narrative description of the stream. This should include known information on: volume and duration of flow; 2) the approximate length, width, and depth of the waterbody and characteristics observed associated with the Ordinary High Water Mark (e.g., bed and bank, wrack line, or scour marks); 3) a description of the adjacent vegetation community, including a statement as to if the area is upland or wetland; surrounding land use; water quality; issues related to cumulative impacts in the watershed, and; any other relevant information; 4) An analysis of the proposed impacts to the waterbody.

Response: In response to concerns raised on stream impacts, Galveston District developed Regional Condition 28, the Fort Worth District developed Regional Condition 12, and Albuquerque District developed Regional Condition 8 which address cumulative

loss of streams in the region. We believe these regional conditions will assure that no more than minimal adverse environmental effects will occur under the NWP program.

The July 22, 2016 and February 10, 2017 TPWD letters recommended that NWP 13 should be limited to less than 300 linear feet in non-tidal areas where state and/or federally-listed threatened or endangered freshwater mussel species habitat currently exists. In addition, a District Engineer case-by-case waiver should not be authorized under NWP 13 for discharges of dredge and fill material into these state designated freshwater mussel sites and the 18 mussel sanctuaries where known populations of state- and/or federally-listed threatened and endangered freshwater mussels currently exist (31 TAC §57.157(d)(2)(A)-(P)).

Response: We believe that TPWD's request to restrict NWP 13 in state designated areas for known mussel habitat addresses their request to designate Critical Resource Waters. We will initiate the process with TPWD to designate these waters independent of the process to authorize the 2017 NWPs.

2.1.6 NWP 16 – Return Water from Upland Contained Disposal Areas

The TCEQ's January 29, 2016 letter recommends that the Corps include a condition that decant water from upland confined disposal areas not exceed 300 mg/L total suspended solids (TSS). The current practice requires applicants to obtain water quality certification from TCEQ for use of NWP 16 contingent on their agreement not to exceed 300 mg/L TSS. Including the 300 mg/L TSS limit in the Corps' Regional Condition would streamline the NWP 16 process for permit applicants, eliminate potential confusion regarding an applicant's regulatory requirements, and simplify the determination of when those requirements have been satisfied and an applicant may commence dredging operations.

Response: If the TCEQ issues a 401 water quality certification with reasonably implementable or enforceable special conditions, we will include these special conditions as conditions of the NWP.

2.1.7 NWP 18 – Minor Discharges

The EPA's July 22, 2016 letter recommended that any activity associated with a proposed discharge into tidal waters, including tidal wetlands that does not require access or proximity to or siting within tidal waters and wetlands to fulfill its basic purpose, i.e., is not "water-dependent", the Corps shall provide the pre-construction notification to EPA, National Oceanic and Atmospheric Administration (NOAA), USFWS, TCEQ/ Texas Railroad Commission (TRRC), and TPWD for individual review.

Response: As demonstrated by our 404(b)(1) Guidelines analyses provided in the national and supplemental decision documents, we have determined that the activities authorized by the NWPs do not result in significant degradation. Alternatives analyses are not required for specific activities authorized by NWPs (see 40 CFR 230.7(b)(1)).

The NWP terms for discharges into tidal waters for many of the NWPs require pre-construction notice for tidal waters. In addition, Galveston District developed Regional Conditions 16, 17, 18, 19, 22, and 25 identifying restrictions and additional pre-construction notification requirements in tidal waters.

2.1.8 NWP 21 – Surface Coal Mining Activities

The USFWS's July 21, 2016 letter recommended the Corps revoke NWP 21 for surface coal mining activities within the State of Texas. In their experience, surface coal mining projects are among the most impactful to fish and wildlife resources and should all receive an individual permit review.

Response: The activities authorized by NWP 21 must already be authorized, or are currently being processed, by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977 or as part of an integrated permit processing procedure by the Department of the Interior, Office of Surface Mining Reclamation and Enforcement. Since the Office of Surface Mining or the state has authority over the entire coal mining activity, and the Corps has jurisdiction only over activities that involve discharges of dredged or fill material into waters of the U.S and/or structures or work in navigable waters, we have concluded that the terms of NWP 21, the NWP general conditions, and Regional Conditions 4, 8, 12, 16 and 28, will ensure that no more than minimal individual or cumulative adverse environmental effect to waters of the U.S. will occur in the region as a result of NWP 21.

2.1.9 NWP 29 – Residential Developments

The EPA's July 22, 2016 letter recommended that wetlands, which are located within the platted lot lines of any residential subdivision, will be considered adversely affected, unless the wetlands are protected by a protective covenant, (e.g., conservation easement or deed restriction), or any other real estate mechanism that can demonstrate to the District Engineer that these areas will be protected and preserved in perpetuity. Those wetlands considered adversely affected may require additional project-specific compensatory mitigation or review under other Federal permitting procedures.

Response: A loss of waters of the U.S. is defined as permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Waters of the U.S. temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the U.S. Impacts resulting from activities that do not require Department of the Army authorization, are not included in the measurement of loss of waters of the U.S.

We have concluded that the subdivision provision of this NWP, the requirements of General Condition 15 (single and complete project), and Regional Conditions 4, 8, 12,

16, and 28 will limit the adverse environmental effects so that they are no more than minimal. Those projects determined to have more than minimal adverse and cumulative effects will require an individual permit.

The EPA's July 22, 2016 letter recommended that the total area of non-tidal waters of the U.S, including wetlands, lost as a result of the discharge shall not exceed 40% of the total lot area, except for those lots which are less than 0.25 acres in size, in which case the loss of non-tidal waters of the U.S., including wetlands, shall not exceed 0.10 acres. Furthermore, in no circumstances would the loss of non-tidal waters of the U.S., including wetlands, resulting from a discharge authorized by this NWP or a combination of this and other NWPs exceed 0.25 acres. For purposes of this regional condition, loss is defined to include any filled area previously permitted, the fill area currently being authorized, and any other waters of the U.S., including wetlands, that are adversely affected by flooding, excavation, or drainage as a result of the project.

The EPA's July 22, 2016 letter recommended that individuals who wish to use this NWP must compensate for the loss of waters of the U.S., including wetlands, where the loss would be greater than 0.05 acre, unless the applicant demonstrates, to the satisfaction of the District Engineer, that the adverse effects are minimal without mitigation. In such cases, the applicant would submit justification explaining why compensatory mitigation should not be required by the Corps. A functional or conditional assessment on the aquatic resources would also be incorporated as a component of this document.

The EPA's July 22, 2016 letter recommended that this NWP not authorize the loss of waters of the U.S., including wetlands, located within a 100-year floodplain.

Response: Regional Conditions 4, 8, 12, 16 and 28 identify regional thresholds for notification, compensatory mitigation, and limit stream loss. We believe that these conditions, combined with the existing NWP 29 requirements and the NWP general conditions ensure that no more than minimal adverse environmental effects occur in the region as a result of NWP 29. General Condition 10, fills in 100-year floodplains, states that all NWP activities must comply with applicable FEMA-approved state or local floodplain management requirements. We do not agree that waters of the U.S. located in a 100-year floodplain constitute a more than minimal adverse effect and decline to revoke the use of NWP 29 in these waters.

The EPA's July 22, 2016 letter recommended this NWP may be used only once by an individual.

Response: General Condition 15 requires each NWP activity to be a single and complete project, and states that the same NWP cannot be used more than once for the same single and complete project. This condition addresses the EPA's request and no change is recommended.

The EPA's July 22, 2016 letter recommended that pre-construction notification to the District Engineer shall include a sketch plan depicting the proposed footprint of fill. The

sketch plan would also include the property dimensions; building setbacks; wetland boundaries; acreage of the proposed wetland loss; location and acreage of any previously permitted wetland fills; location(s) of any streams, drainage courses, and floodplain limits; location of proposed house, driveway, and utilities; and a compensatory mitigation proposal. The wetland boundary would be determined by a trained wetland delineator.

Response: When a pre-construction notice is required, General Condition 32(b) states that the description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the District Engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. If the applicant does not provide sufficient information to demonstrate compliance with the requested NWP, general conditions and regional conditions, we will require the applicant to provide additional information prior to verification. If the applicant cannot demonstrate compliance with the NWP, general conditions or regional conditions, we will evaluate the application under the Individual Permit process.

The EPA's July 22, 2016 letter recommended that, applicable to all perennial and intermittent streams, the Corps shall provide a copy of the pre-construction notification, including any supporting documentation, to EPA, TCEQ, NMFS, USFWS, and TPWD where the work does not result in: 1) A culvert measuring greater than 24 inches in diameter being depressed 12 inches below the stream bottom; or 2) A culvert measuring 24 inches or less in diameter being depressed 6 inches below the stream bottom; 3) NOTE: Extensions of existing culverts that are not depressed below the stream bottom do not require submission of the requested information as part of the pre-construction notification. The pre-construction notification shall include a narrative documenting measures evaluated to minimize disruption of the movement of aquatic life, as well as specific documentation concerning site conditions, limitations, and/or engineering factors that prohibit meeting culvert depression requirements. This documentation must also include photographs documenting site conditions.

Response: In addition to the hydraulic and biological function the EPA seeks to maintain with their preferred culvert construction method, the culvert and/or bridging design must also consider construction and highway traffic and earth loads; therefore, their design involves both hydraulic and structural design. Due the potential liability of the federal government, we do not establish a preference for construction methods.

2.1.10 NWP 30 - Moist Soil Management for Wildlife

The EPA's July 22, 2016 letter recommended that the proposed regional conditions be revised to add that use of NWP 30 requires that, prior to doing the work, the permittee must submit a pre-construction notification to the District Engineer, in accordance with the current Corps permit application procedures.

Response: NWP 30 only authorizes ongoing wetland soil management activities so that habitat and feeding areas can continue to support target wildlife populations. It does not authorize any losses of jurisdictional wetlands. We do not believe requiring a pre-construction notice is necessary to assure no more than minimal individual or cumulative adverse environmental effects occur in the region as a result of this NWP.

2.1.11 NWP 33 – Temporary Construction, Access, and Dewatering

The EPA's July 22, 2016 letter recommended that for causeways and cofferdams constructed under this NWP, the following applies: 1) Earthen cofferdams and cofferdams of dredged and/or fill material shall not be used due to problems with sedimentation of the waterway during installation and removal of the earthen (fine material) component. Causeways shall consist of only clean rock; 2) Causeways and cofferdams shall extend no more than 1/2 the width of the waterway, and sufficient conveyance of the waterways shall be provided to preclude damage to property or the environment resulting from increased water surface elevations.

Response: NWP 33 requires that appropriate measures must be taken to maintain near normal downstream flows and to minimize flooding. In addition, fill must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. We have also developed Regional Conditions 13 and 22 which identify regional thresholds for notification in addition to the navigable waters requirement. We believe the NWP 33 requirements, NWP general conditions, and regional conditions will result in no more than minimal individual and cumulative adverse environmental effects.

The EPA's July 22, 2016 letter recommended that temporary crossings of wetlands shall be avoided if an alternate location is possible. Where wetland impacts cannot be avoided, timber mats, construction pads, geotextiles or other similar devices shall be used to avoid consolidation of temporary road materials into the wetland substrate.

Response: As demonstrated by our 404(b)(1) Guidelines analyses provided in the national and supplemental decision documents, we have determined that the activities authorized by the NWPs do not result in significant degradation. Alternatives analyses are not required for specific activities authorized by NWPs (see 40 CFR 230.7(b)(1)).

The EPA's July 22, 2016 letter recommended that restoration plans for disturbed wetlands and stream banks shall include a planting plan identifying specific species to be planted. Re-vegetation with species similar to those that pre-existed should be used, unless site specific conditions justify a change. The type of re-vegetation should be in-kind, e.g., herbaceous species replaced with same, shrub species replaced with same, and tree species replaced with same.

Response: The preconstruction notification for NWP 33 must include a restoration plan showing how all temporary fills and structures will be removed and the area restored to preproject conditions. We will evaluate restoration plans in accordance with our standard operating practices.

The EPA's July 22, 2016 letter stated that the Corps shall provide the required pre-construction notification to EPA, TCEQ, NMFS, USFWS, and TPWD for individual coordination when: 1) The activity affects more than 0.5 acre of tidal waters, including jurisdictional tidal wetlands; or 2) The activity affects more than 200 linear feet of a nontidal stream.

Response: The Galveston District will require all NWP 33s to submit a pre-construction notification and will coordinate impacts with the agencies when they exceed 0.5 acres in tidal waters or 200 linear feet of stream.

2.1.12 NWP 35 – Maintenance Dredging of Existing Basins

The EPA's July 22, 2016 letter recommended the proposed regional conditions be revised to add that use of NWP 35 require a pre-construction notification in the following locations: 1) San Jacinto Waste Pits Area of Concern (analyze for dioxin); 2) Houston Ship Channel (analyze for dioxin); 3) Texas City Channel, south and west of the Texas City Dike; 4) Galveston Ship Channel; 5) "Inland portion" of Bayport Channel; 6) Barbour's Cut; 7) Lower San Jacinto River, south of San Jacinto Waste Pits Area of Concern; 8) Port Arthur Ship Canal; 9) Lower Neches River, from Beaumont to Sabine Lake; 10) Point Comfort; 11) Corpus Christi Inner Harbor; and 12) Port of Brownsville, southwest of the "Fishing Port of Brownsville". The pre-construction notification required for use of the NWP in these locations must include dredged material testing results, no more than three years old, collected as per the appropriate testing manual, e.g., Inland Testing Manual, Upland Testing Manual.

Response: Testing of dredged material is not always mandatory, even in instances where dredged material may contain a certain level of contaminants, as described in 40 CFR 230.6. The testing manuals, when required, already require testing evaluation to not exceed three years or the dredging cycle, whichever is longest, unless there is reason to believe conditions have changed. NWP 35 is for maintenance of existing basins and requires placement of the material outside of waters of the U.S., therefore there is no Section 404 permit required. Maintenance dredging activities in areas with known or suspected sediment contaminants can use best management practices and other techniques to minimize the adverse environmental effects that might be caused by exposure of those contaminants during dredging. Those upland placement areas that have a return water will be subject to NWP 16. If the TCEQ issues a 401 water quality certification which includes conditions, we will include these special conditions as conditions of the NWP.

The EPA's July 22, 2016 letter recommended maintenance dredging area must have been previously authorized by the Corps and prior maintenance dredging had to be completed no more than five years prior to the current proposal. Maintenance dredging authorized by this NWP shall be limited to the dimensions (width and depth) of previously authorized dredging.

Response: NWP 35 only authorizes the removal of accumulated sediment for maintenance of previously authorized facilities. Five-year timeframes are generally related to dredge testing requirements which has been addressed above.

2.1.13 NWP 36 - Boat Ramps

The EPA's July 22, 2016 letter recommended that requests to waive the 20-foot width limitation for the intermittent and ephemeral streams must include: 1) A narrative description of the stream. This should include known information on: volume and duration of flow; 2) the approximate length, width, and depth of the waterbody and characteristics observed associated with the Ordinary High Water Mark (e.g. , bed and bank, wrack line, or scour marks); 3) a description of the adjacent vegetation community, including a statement as to if the area is upland or wetland; surrounding land use; water quality; issues related to cumulative impacts in the watershed, and; any other relevant information; 4) An analysis of the proposed impacts to the waterbody.

Response: While we do not anticipate many boat ramps proposed on ephemeral and intermittent streams, the waiver will require a pre-construction notice including a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The notice will include a description, including sketches, of the proposed activity that provides sufficient detail to determine that the adverse environmental effects of the activity will be no more than minimal. NWP 36 is not authorized for use in special aquatic sites, including wetlands.

2.1.14 NWP 39 - Commercial and Institutional Developments

The EPA's July 22, 2016 letter recommended that under the terms of this NWP, wetlands, which are located within the platted lot lines of any commercial or institutional subdivision, will be considered adversely affected, unless the wetlands are protected by a protective covenant, (e.g., conservation easement or deed restriction), or any other real estate mechanism that can demonstrate to the District Engineer that these areas will be protected and preserved in perpetuity. Those wetlands considered adversely affected may require additional project-specific compensatory mitigation or review under other Federal permitting procedures.

Response: A loss of waters of the U.S. is defined as permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Waters of the U.S. temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the U.S. Impacts resulting from activities that do not require Department of the Army authorization, are not included in the measurement of loss of waters of the U.S.

The terms of NWP 39, the requirements of General Condition 15 (single and complete project), and the application of the definition of single and complete nonlinear project, and Regional Conditions 4, 8, 12, 16 and 28 will limit the environmental impacts so that

they are no more than minimal. Any proposed NWP 39 activity that will result in more than minimal adverse environmental effects, after considering the mitigation proposal provided by the applicant will require an individual permit.

The EPA's July 22, 2016 letter recommended for all perennial and intermittent streams that the Corps shall provide a copy of the pre-construction notification, including any supporting documentation, to the EPA, NMFS, USFWS, TCEQ, and TPWD, where the work does not result in: 1) A culvert measuring greater than 24 inches in diameter being depressed 12 inches below the stream bottom; or 2) A culvert measuring 24 inches or less in diameter being depressed 6 inches below the stream bottom. NOTE: Extensions of existing culverts that are not depressed below the stream bottom do not require submission of the requested information as part of the pre-construction notification.

Response: In addition to the hydraulic and biological function the EPA seeks to maintain with their preferred culvert construction method, the culvert and/or bridging design must also consider construction and highway traffic and earth loads; therefore, their design involves both hydraulic and structural design. Due the potential liability of the federal government, we do not establish a preference for construction methods.

2.1.15 NWP 42 – Recreational Facilities

The EPA's July 22, 2016 letter recommended that for activities affecting perennial and intermittent streams the Corps shall provide a copy of the pre-construction notification, including any supporting documentation, to the EPA, NMFS, USFWS, TCEQ, and TPWD, where the work does not result in: 1) A culvert measuring greater than 24 inches in diameter being depressed 12 inches below the stream bottom; or 2) A culvert measuring 24 inches or less in diameter being depressed 6 inches below the stream bottom. NOTE: Extensions of existing culverts that are not depressed below the stream bottom do not require submission of the requested information as part of the pre-construction notification. The pre-construction notification shall include a narrative documenting measures evaluated to minimize disruption of the movement of aquatic life, as well as specific documentation concerning site conditions and limitations on depressing the culvert, and engineering factors that prohibit depressing the culvert. This documentation must also include photographs documenting site conditions.

Response: In addition to the hydraulic and biological function the EPA seeks to maintain, the culvert and/or bridging design must also consider construction and highway traffic and earth loads; therefore, their design involves both hydraulic and structural design. Due the potential liability of the federal government, we do not establish a preference for construction methods. Regional Conditions 4, 8, 12, 16, and 28 identify regional thresholds for compensatory mitigation and limit stream loss. We believe that these conditions, combined with the existing NWP 42 requirements and the NWP general conditions ensure that no more than minimal adverse environmental effects occur in the region as a result of NWP 42.

2.1.16 NWP 43 – Stormwater Management Facilities

The EPA's July 22, 2016 letter stated that NWPs cannot be used to authorize a storm water detention/retention facility in a perennial stream. A Department of the Army standard permit application is required for these projects.

Response: This NWP does not authorize discharges of dredged or fill material into waters of the U.S. for the construction of new stormwater management facilities in perennial streams.

The EPA's July 22, 2016 letter stated the pre-construction notification for NWP 43 must also include the following information: 1) A clear statement of the basic (primary) purpose of the detention/retention facility; 2) A description of the upland-based facility/system that will be utilized to pre-treat storm water prior to discharge into the in-stream/wetland detention/retention facility; 3) A detailed alternatives analysis pursuant to the Section 404(b)(1) Guidelines of the Clean Water Act. This analysis must demonstrate that all other available storm water and sediment/erosion treatment controls will be implemented and that in-stream detention/retention is the only available practicable alternative that would meet the basic project purpose. This analysis shall also include all project site specific factors that may render other storm water detention/retention measures impractical, such as: steep slopes; rock substrate; narrow floodplain; and pre-existing development.

Response: As demonstrated by our 404(b)(1) Guidelines analyses provided in the national and supplemental decision documents, we have determined that the activities authorized by the NWPs do not result in significant degradation. Alternatives analyses are not required for specific activities authorized by NWPs (see 40 CFR 230.7(b)(1)). The maintenance of stormwater management facilities, low impact development integrated management features, and pollutant reduction green infrastructure features that are not in waters of the U.S. do not require a section 404 permit.

2.1.17 NWPs 12 and 13

The EPA's July 22, 2016 letter recommended that impacts to jurisdictional aquatic resources be suspended in National Park Service properties, federal wildlife refuges, National Estuarine Research Reserves, state parks and wildlife refuges, and state coastal preserves.

The July 22, 2016 and February 10, 2017 TPWD letters recommended a regional condition prohibiting the use of NWPs 12 and 13 for discharges into Critical Resource Waters and their adjacent wetlands.

Response: Per NWP General Condition 22, NOAA-managed marine sanctuaries and marine monuments and National Estuarine Research Reserves are considered designated critical resource waters (DCRW). Per General Condition 22, NWP 12 is not authorized for use in a DCRW, and NWP 13 requires a pre-construction notification. No

Department of the Army permit, whether general permit or individual permit, obviates the need for any project to also have approval or authorization from the National Park Service, or other federal or state agencies that manages their properties, refuges, or preserves. Revoking NWP 12 and 13 in areas that have not been determined to be DCRWs would negatively affect the ability of these federal and state agencies to utilize the NWP program for their own minor projects which may impact waters or wetlands subject to Corps jurisdiction, but that are on properties they own or manage. Revoking NWP 13 in DCRWs would eliminate a streamlined permitting process that may be used to facilitate protection of these DCRWs. We will make a case-by-case determination on proposed NWP 13s to assure that no more than minimal adverse environmental effects result from the use of this NWP in DCRWs.

2.1.18 All Nationwide Permits, Excluding Nationwide Permits 12 and 13

The EPA's July 22, 2016 letter recommended impacts to jurisdictional aquatic resources in National Park Service properties, federal wildlife refuges, National Estuarine Research Reserves, state parks and wildlife refuges, and state coastal preserves, require the applicant to notify the District Engineer in accordance with the NWP General Condition 32, Pre-Construction Notification , and for the Corps to coordinate with the resource agencies as specified in NWP General Condition 32(d), including EPA, USFWS, NMFS, TPWD, and TCEQ/TRRC.

Response: We believe requiring pre-construction notification and agency coordination based on the proposed projects location on state or federally owned lands would negatively affect the ability of these state and federal agencies to utilize the NWP program for their own minor projects. The NWP terms, general conditions, and regional conditions ensure that no more than minimal adverse environmental effects occur in the region as a result of NWP, regardless of property ownership.

2.1.19 Nationwide Permits 12, 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52

The EPA's July 22, 2016 letter recommended any requests to waive the 300 linear foot limitation for the intermittent and ephemeral streams must include: 1) A narrative description of the stream. This should include known information on: volume and duration of flow; 2) the approximate length, width, and depth of the waterbody and characteristics observed associated with the Ordinary High Water Mark (e.g. , bed and bank, wrack line, or scour marks); 3) a description of the adjacent vegetation community, including a statement as to if the area is upland or wetland; surrounding land use; water quality; issues related to cumulative impacts in the watershed, and; any other relevant information; 4) An analysis of the proposed impacts to the waterbody.

Response: When a pre-construction notice is required, General Condition 32(b) states that the description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the District Engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. If the

applicant does not provide sufficient information to demonstrate compliance with the requested NWP, general conditions, and regional conditions the Corps will require the applicant to provide additional information prior to verification. If the applicant cannot demonstrate compliance with the NWP, general conditions and/or regional conditions the Corps will evaluate the application under an Individual Permit process. Galveston District has developed Regional Condition 28 which will require review under an individual permit process for stream impacts greater than 300 linear feet.

2.1.20 NWPs 53 Removal of Low-Head Dams

The USFWS's July 21, 2016 letter recommended we coordinate all NWP 53 proposals with the resource agencies in accordance with General Condition 32(d).

The TPWD July 22, 2016 letter recommended we require agency coordination for all proposed uses of NWP 53, in addition to the proposed pre-construction notification requirement.

Response: Due to the potential for head cutting and/or stream avulsion resulting from the change in the sediment transport system, the Galveston District developed Regional Condition 27 requiring that NWP 53 be coordinated with the agencies in accordance with General Condition 32. The regional differences between similar aquatic resources in a large geographic area such as Texas do not warrant a blanket conclusion that removal of a low-head dam will result in a more than minimal effect in every stream in Texas. NWP 53 requires pre-construction notification during which the other Districts in Texas will make case-by-case determinations to assure the proposed activity will result in no more than minimal individual or cumulative adverse environmental effect.

2.1.21 All Nationwide Permits Authorizing Culverts

The EPA's July 22, 2016 letter recommend the following restrictions on culverts for perennial streams, be added to the proposed regional conditions: 1) The width of the base flow culvert(s) shall be approximately equal to the average channel width. Culvert(s) shall not permanently widen/constrict the channel or reduce/increase stream depth. Multiple pipe culverts may not be used to receive base flows; 2) Bank-full flows shall be accommodated through maintenance of the existing bank-full cross-sectional area; 3) The upstream and downstream invert of culverts (except bottomless culverts) installed in perennial streams will be buried/embedded to a depth of 20% of the culvert height to allow natural substrate to colonize the structure's bottom and encourage fish movement; 4) Culvert slope shall be consistent with average stream segment slope, but shall not exceed 4 percent; 5) Culverts shall be of adequate size to accommodate flooding and sheet flow in a manner that does not cause flooding of associated uplands or disruption of hydrologic characteristics that support aquatic sites on either side of the culvert; 6) Where adjacent floodplain is available, flows exceeding bankfull shall be accommodated by installing equalizer culverts at the floodplain elevation; 7) Unless specifically described in the pre-construction notification, use of undersized culvert to attain storm water management or waste treatment is not authorized.

Response: In addition to the hydraulic and biological function the EPA seeks to maintain with their preferred culvert construction method, the culvert and/or bridging design must also consider construction and highway traffic and earth loads; therefore, their design involves both hydraulic and structural design. Due the potential liability of the federal government, we do not establish a preference for construction methods.

2.1.22 NWP General Condition 18

The USFWSs' July 21, 2016 letter recommended we incorporate language into the regional conditions for review of projects, authorized by NWP and requiring pre-construction notification, through the USFWS's Information, Planning and Consulting IPaC website. A regional condition requirement for "A copy of the US Fish and Wildlife Service "Information, Planning and Consultation (IPaC)" printout identifying federally-listed threatened and endangered species that may occur in the vicinity of the project site <http://ecos.fws.gov/ipac/>" would be an additional prompt to applicants to provide this information to the Corps along with their pre-construction notification.

Response: We believe General Condition 18 and our local procedures described in Section 4.2 of this document are sufficient to assure compliance with the requirements of Section 7 of the Endangered Species Act (ESA).

2.1.23 Designated Critical Resource Waters

The July 22, 2016 and February 10, 2017 TPWD letters recommended that we develop a new statewide regional condition that formalizes and lists the state-designated areas (GEMS, State Coastal Preserves, Sanctuaries, State Scientific Areas, and Ecologically Significant Stream Segments) as Critical Resource Waters.

The July 22, 2016 and February 10, 2017 TPWD letters recommended we develop a new statewide regional condition that formalizes and lists state designated areas for known mussel habitat that prohibits use of NWPs without prior coordination with TPWD.

The July 22, 2016 and February 10, 2017 TPWD letters recommended that for all discharges, work, dredging activities, or dewatering activities proposed in non-tidal waters in which state- and/or federally-listed freshwater mussels species are known to occur (listed in TPWD's Texas Natural Diversity Database) and/or are within one of the 18 listed Texas protected mussel sanctuaries (31 TAC §57.157(d)(2)(A)(P)), we should require the applicant to notify the Galveston District Engineer in accordance with the NWP General Condition 32 (pre-construction notification). In addition, District waivers for discharges of fill material and dredge material should not be allowed in these areas.

Response: The designation as a DCRW under NWP General Condition 22 is an important component of the NWP program assuring that impacts to environmentally and ecologically important waters are not more than minimal. Nationally, DCRWs include NOAA-managed marine sanctuaries and marine monuments and National Estuarine Research Reserves. The District Engineer may also designate, after notice and

opportunity for public comment, additional waters having particular environmental or ecological significance.

The designation as a DCRW prohibits the public, as well as state and federal agencies, from using 18 specific NWP within, or directly affecting, CRWs, including wetlands adjacent to DCRWs. Prohibited NWPs will include those used to construct pipelines, utility lines, roads, residential homes, conduct maintenance dredging, as well as some agricultural practices and storm water management. Applicants seeking authorization for these activities will be required to apply for an individual permit.

In addition to the 18 revoked NWPs, another 19 NWPs will have restrictions placed on them requiring applicants to go through additional administrative procedures and environmental review as outlined in General Condition 32 prior to being verified. Restricted NWPs will include those commonly used to conduct routine maintenance, stabilize shorelines, remove derelict vessels, restore aquatic resources, and manage moist soil units. Those activities determined to have more than minimal adverse impacts to the DCRW will be required to apply for an individual permit.

We believe that TPWD's request to restrict NWPs in state designated areas for known mussel habitat should be addressed concurrently with their request to designate Critical Resource Waters rather than as a regional condition. We will initiate the process with TPWD to designate these waters in an independent public notice process in compliance with NWP General Condition 22.

2.1.24 Streams

The USFWS recommended we require pre-construction notification, resource agency coordination in accordance with General Condition 32(d), and a compensatory mitigation proposal for all NWP authorizations that result in stream bed losses in excess of 50 linear feet for all natural and restored streams. The USFWS seeks to minimize losses of streams and associated habitat from the discharge of non-native materials (e.g., rock, riprap, articulated concrete block, etc.) and/or placement of culverts (which impact aquatic life movements even if they are placed to pass low flows), as even NWP-threshold impacts (i.e., 300 linear feet) can de-stabilize local stream channels to the detriment of fish and wildlife resources. For example, Wheeler (2005) notes a variety of negative effects from culverts, including poor internal habitat (due to low bottom complexity and uniformly high velocities) and barriers to fish movement (shallow depths, development of sediment bars, and/or vertical drops at outflows, etc.).

Response: Regional Conditions 4, 8, 12, 16, and 28 identify regional thresholds for notification, compensatory mitigation, and limit stream loss. We believe that these regional conditions, combined with the existing NWP requirements and the NWP general conditions ensure that no more than minimal individual or cumulative adverse environmental effects occur to streams in the region as a result of NWPs.

2.1.25 Executive Order 13771 and White House Chief of Staff Memorandum entitled “Regulatory Freeze Pending Review.”

The Texas Pipeline Association February 13, 2017 letter stated the proposed regional conditions in the NWP's cannot be finalized without a review conducted under new executive order 13771 and memorandum.

Response: The regional conditions are permit conditions added to a permit rule that was promulgated and published in the Federal Register on Jan. 6, 2017 (82 FR 1860); prior to the issuance of EO 13771. In addition, the Office of Management and Budget's Office of Information and Regulatory Affairs granted an exemption to the White House Chief of Staff memorandum entitled “Regulatory Freeze Pending Review” for the 2017 Nationwide Permits.

2.1.26 Climate Change

The Sierra Club's January 21, 2017 letter recommended we require preparation of a Climate Change Ecological Resilience and Resistance Plan (CCERRP) for all NWP's.

Response: The NWP's are, and will be, an important tool for climate change adaptation, to fulfill the needs of society and communities, and to avoid and minimize adverse effects to jurisdictional waters and wetlands that help provide resilience to changing environmental conditions.

The Sierra Club's January 21, 2017 letter suggested that a “minimum one-for-one ratio for all special aquatic site losses” is inadequate to ensure that “no net wetland loss” is attained. They advised that Washington U.S. Environmental Protection Agency, on February 23, 2011, held a wetlands team assessment meeting at the Corps Galveston District office and provided information that the Gulf of Mexico, including Texas, was losing wetlands at a higher rate than many other regions in the U.S.

Response: Each District evaluates the need for compensatory mitigation in accordance with their standard operating practices and procedures to assure that the NWP program result in no more than minimal individual or cumulative adverse environmental effect to aquatic resources in our region. We do not regulate all wetlands in the State of Texas, only those wetlands that are determined to be waters of the U.S.

2.2 Proposed Regional Conditions

To solicit comments on the following proposed regional conditions for the 2017 NWP's, the Galveston District, as the lead District, issued a public notice on January 12, 2017 for the proposed regional conditions that affect the State of Texas. Below are the proposed regional conditions for NWP 21 as they were published in the January 2017 public notice. Regional Conditions 1-3 applied to the entire State of Texas. Regional Condition 4 applied in Albuquerque, Fort Worth, and Galveston Districts only. Regional Conditions 5-10 applied in Albuquerque District only. Regional Conditions 11-15

applied in Fort Worth District only. Regional Conditions 16-29 applied in Galveston District only, and Regional Conditions 30 and 31 only applied in Tulsa District only.

2.2.1 The Proposed Regional Condition 1 States: For all discharges proposed for authorization under nationwide permits (NWP) 3, 6, 7, 12, 14, 18, 19, 21, 23, 25, 27, 29, 39, 40, 41, 42, 43, 44, 49, 51, and 52, into the following habitat types or specific areas, the applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32, Pre-Construction Notification (pre-construction notice). The Corps of Engineers (Corps) will coordinate with the resource agencies as specified in NWP General Condition 32(d) (pre-construction notice). The habitat types or areas are: a) Pitcher Plant Bogs; b) Bald Cypress-Tupelo Swamps.

The EPA's July 22, 2016 letter recommended the regional condition be modified to expand the list of habitat types into which all discharges proposed for authorization under nationwide permits (NWP) 3, 6, 7, 12, 14, 18, 19, 25, 27, 29, 39, 40, 41, 42, 43, 44, 49, 51, and 52, require the applicant to notify the District Engineer in accordance with the NWP General Condition 32, Pre-Construction Notification (pre-construction notice), and the Corps to coordinate with the resource agencies as specified in NWP General Condition 32(d) (pre-construction notice). Specifically, the EPA recommend that habitat type "b" should be broadened to include all jurisdictional forested wetlands.

The July 22, 2016 TPWD letter recommended that the regional condition should be expanded to include the requirement for federal and state natural resource agency coordination for NWP 21 when pitcher plant bog wetlands or bald cypress and/or tupelo swamps are impacted.

The July 22, 2016 and February 10, 2017 TPWD letters recommended regional condition should be expanded to include the requirement for federal and state natural resource agency coordination for case-by-case waiver decisions when pitcher plant bog wetlands or bald cypress and/or tupelo swamps are impacted.

Response: We have updated the list of NWPs subject to the regional condition to reflect all NWPs that authorize a discharge in a special aquatic sites. The regional condition requires agency coordination for these aquatic resource types, adding language inclusive of waivers is redundant. We do not consider all wetlands with trees to be equivalent in rarity or uniqueness to wetlands dominated by cypress tupelo swamps trees.

The USFWS's July 21, 2016 letter stated that they support the additional protections afforded some rare and ecologically significant habitat types (e.g., cypress/tupelo swamps and pitcher plant bogs) under the proposed statewide regional condition. They recommend the Corps work with the resource agencies to consider the inclusion of additional habitat types which are likewise imperiled, difficult to replace, and deserving of and in need of additional protection for their role in supporting rare or

imperiled species (e.g., coastal freshwater wetlands, bottomland hardwood forested wetlands, freshwater prairie wetlands, intertidal salt marsh and mangrove forest, and streams).

Response: With the exception of NWP 12 and 14, NWPs are not authorized in non-tidal waters adjacent to tidal waters (e.g. coastal freshwater wetlands) and Regional Condition 15 revokes NWPs in mangrove forests, except NWP 3 on a case-by-case basis. Regional General Conditions 4, 12, 16 & 28 identify regional thresholds for notification, compensatory mitigation, and limit stream loss. We believe that these conditions, combined with the existing NWP requirements and the NWP general conditions ensure that no more than minimal individual or cumulative adverse environmental effect occur in the region. We will be coordinating with state and federal agencies, at TPWD's request, to initiate the process to identify Critical Resource Waters in accordance with General Condition 22.

The July 22, 2016 and February 10, 2017 TPWD letters recommended that the regional condition should not include NWP 6 to authorize seismic exploratory activities when pitcher plant bog wetlands or bald cypress and/or tupelo swamps are impacted. Seismic survey activities should be required to seek authorization through the individual permit process.

Response: NWP 6 does not authorize permanent fill, access roads, or permanent structures and does not represent any greater probability of having more than minimal individual or cumulative adverse environmental effect than the other NWPs included in this regional condition. The pre-construction notification required in this regional condition allows us, through coordination with the agencies, to determine if a case-specific activity does have a more than minimal individual or cumulative adverse environmental effect.

The January 21, 2016 Sierra Club letter recommended the Corps include Sweet Bay – Swamp Tupelo – Red Maple and Bay Forested wetland types to the pitcher plant bogs and Bald Cypress-Tupelo Swamps that are already listed in the regional condition.

Response: To date, we have not received an Aquatic Resource of National Importance determination (ARNI) in accordance with Section 404(q) Memorandums of Agreements for these wetlands types from the EPA or USFWS, which is the standard we use for inclusion in this regional condition. Other regional conditions, such as Regional General Conditions 4, 13, 17 & 29 will assure that no more than minimal individual or cumulative adverse environmental effects will occur to these regional wetlands.

2.2.1.1 Reason for Notification Requirement for Pitcher Plant Bogs: Pitcher plant bogs are limited in extent within the state of Texas. Pitcher plant bogs primarily occur in east Texas with the largest component occurring in the Big Thicket National Preserve.

Experience to date with permitting a limited number of actions in this habitat has demonstrated that impacts are long-lasting and new habitat is difficult to recreate using conventional mitigation techniques. The Corps has therefore determined that pre-construction notifications will be required for all discharges proposed under this NWP within pitcher plant bogs. The Corps will also coordinate with the resource agencies as specified in NWP general condition 31(d). Case-by-case reviews of activities that could potentially impact these areas will provide an opportunity to add project-specific conditions to the authorizations, if applicable, in order to reduce individual and cumulative impacts to the resource that could result from NWP permitting activity. This type of review also provides an opportunity for the Corps to take discretionary authority, if appropriate, and require that the project be evaluated via the individual permit process. It would then be subject to a review of alternatives and other public interest factors.

2.2.1.2 Reason for Notification Requirement in Cypress-Tupelo Swamps: Bald cypress-tupelo swamps are limited in extent within the state of Texas. Bald cypress and tupelo swamps occur adjacent to rivers located in east and northeast Texas and along the upper to mid Texas coast. Trees in these areas are slow growing and thus take many years to mature. Decades of experience to date with permitting a limited number of actions in these habitat areas has demonstrated that impacts are long-lasting and new habitat is difficult to recreate using conventional mitigation techniques. The Corps has therefore determined that pre-construction notifications will be required for all discharges proposed under this NWP within these aquatic resource areas. Case-by-case reviews of activities that could potentially impact these areas will provide an opportunity to add project-specific conditions to the authorizations, if applicable, in order to reduce individual and cumulative impacts to the resource that could result from NWP permitting activity. This type of review also provides an opportunity for the Corps to take discretionary authority, if appropriate, and require that the project be evaluated via the individual permit process. It would then be subject to a review of alternatives and other public interest factors.

2.2.2 Proposed Regional Condition 2 states: For all activities proposed for authorization under NWP in Palustrine and Lacustrine aquatic resource types, best management practices (BMPs) are required to reduce the risk of transferring zebra mussels to or from project sites. The following BMPs, as a minimum, will be required: A) Clean: Clean both the inside and outside of equipment and gear, by removing all plants, animals, and mud and thoroughly washing the equipment using a high pressure spray nozzle. Equipment operated or stored in a water body on the Texas list of zebra mussel (*Dreissena polymorpha*) infected water bodies shall be decontaminated in accordance with State of Texas law prior to relocation; B) Drain: Drain all water from receptacles before leaving the area, including livewells, bilges, ballast, and engine cooling water on boats and; C) Dry: Allow time for your equipment to dry completely before relocating in other waters. Minimum drying time is one week. Equipment operated or stored in a water body on the Texas list of zebra mussel (*Dreissena*

polymorpha) infected water bodies shall be dried a minimum of 20 days prior to relocation. High temperature pressure washing (greater than or equal to 140F) or professional cleaning may be substituted for drying time.

TxDOT stated in their July 21, 2016 and February 7, 2017 letters that while they understand that BMPs specified in the regional condition are consistent with TPWD's current approach for preventing the spread of invasive zebra mussels, they requested that the 20-day minimum drying time requirement be omitted from the regional condition. Instead, TxDOT recommended the regional condition reference the online calculator be referenced for determining minimum drying time on a project-by-project basis. TPWD currently recommends use of an on line calculator in order to determine drying time. The online calculator bases recommended drying time on 1) location and 2) time of year, considering the average maximum relative humidity and average minimum temperature for both factors. TxDOT also understands that high-temperature pressure washing would effectively prevent the spread of zebra mussels, but facilities offering high-temperature pressure washing are not available throughout the state, which renders this an unviable option for permittees.

Perennial Environmental Services' February 10, 2017 letter recommend modifying this condition to exclude linear transportation projects or allow for some watershed exclusions. Even through careful routing design, it is not uncommon for linear transportation projects to cross dozens of palustrine aquatic resource types during construction. Linear transportation projects would take exponentially longer to complete if per crossing equipment drying or cleaning expectations were established; which would result in prolonged, unnecessary, and increased disturbances within both upland areas and waters of the United States. Additionally, by cleaning equipment on-site with high pressure water you are greatly increasing the potential for hydrocarbon laden wastewater to be introduced to the environment. Economically, this would result in substantial construction delays, idle equipment, and price increases for commodities delivered via linear transportation systems within Texas and nationally. We also suggest further defining "before relocating to other waters". This can be interpreted as every palustrine "Water of the United States" crossed by a given project regardless of proximal distance to another aquatic feature; by river basin; or by other hydrological means. We also suggest further defining "before relocating to other waters". This can be interpreted as every palustrine water of the United States crossed by a given project regardless of proximal distance to another aquatic feature; by river basin; or by other hydrological means.

GPA Midstream's February 12, 2017 letter requests that Corps remove this regional condition, as it has no direct bearing on dredging or placement of fill material in a Water of the U.S. There are existing state regulations and programs in the State of Texas governing the spread of zebra mussels and other invasive species; therefore, this requirement is unnecessary. If the Corps is unwilling to remove this requirement then GPA Midstream requests that Corps exempt pipeline projects from Regional Condition 2. The requirement could be overly burdensome for linear projects such as pipelines, which frequently encounter numerous palustrine aquatic resource types during

construction of a single linear project. Often times when this occurs the aquatic resources are within relatively close proximity and contained within the same watershed. The proposed cleaning and drying requirements would add significant delays to project timelines and high temperature pressure washing could result in the deposition of other unwanted materials in waters of the US. The potential negative consequences of imposing Regional Condition 2 on pipeline projects far outweigh the minimal benefits that would be gained.

The Texas Pipeline Association February 13, 2017 letter recommended that the proposed Regional Condition 2 should be removed or, in the alternative, pipeline projects should be excepted from Regional Condition 2. The State of Texas already has a regulatory program in place to address the spread of zebra mussels, meaning that the proposed federal requirement would be duplicative or, even worse, inconsistent with the State program. As such the condition should be removed. In the alternative, Regional Condition 2 should contain an exception for pipeline projects, because the burden and delays associated with the zebra mussel cleaning and drying requirements along a long stretch of pipeline would greatly outweigh any environmental benefits that the requirements would provide.

Freese and Nichols' February 10, 2017 letter recommend omitting the terms Palustrine and Lacustrine. However, if retained, the usage of the terms Palustrine and Lacustrine needs to be clarified. As written, this Regional Condition would pertain to all Palustrine and Lacustrine aquatic resources including Palustrine wetlands that never have water to support zebra mussels. We recommend revising the first sentence to read, "For all activities proposed for authorization under NWP in waterbodies listed on the Texas list of zebra mussel (*Dreissena polymorpha*) infected waterbodies (the Corps should provide a web link to this list), best management practices (BMPs) are required to reduce the risk of transferring zebra mussels to or from project sites."

Response: Since zebra mussels were first found in Texas in 2009, six Texas lakes in three river basins were fully infested by 2016, meaning they have an established, reproducing population and boats or other equipment can transfer them from these lakes to new areas. Zebra mussels have been found on isolated occasions in five other Texas lakes so we expect the list of infested state waters to increase. Applying the factors described in the TPWD calculator to develop a year-round, state-wide drying time that assures equipment being transferred from a zebra mussel infested waterbody does not pose a potential for transfer we concluded 20 days drying time is required. This regional condition provides a simple, repeatable requirement for the public and is limited to removing and relocating equipment from those water bodies on the Texas list of zebra mussel infected water bodies to another waterbody. To provide some flexibility, in accordance with state law, we have included high temperature pressure wash as an alternative to the 20 day drying time. Portable, high temperature pressure washers capable of temperatures in excess of 300 degrees Fahrenheit are readily available. Our intent of this regional condition was not to require these BMPs for equipment being relocated from a non-infested waterbody to a non-infested waterbody.

We will revise the language to clarify that the BMPs are required when equipment is relocated from a state listed, zebra mussel infested waterbody to a non-infested waterbody.

2.2.3 Proposed Regional General Condition 3 states: For all activities proposed for authorization under NWP at sites approved as compensatory mitigation sites (either permittee-responsible, mitigation bank and/or in-lieu fee) under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899, the applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32 (Pre-Construction Notification) prior to commencing the activity.

The TCEQ July 29, 2016 letter, stated the regional condition is newly proposed in this 2017 revision and requires that applicants notify the Corps prior to commencing activities proposed for authorization under NWPs at sites identified as compensatory mitigation sites under Section 404 of the Clean Water Act and/ or Section 10 of the Rivers and Harbors act of 1899. Because these mitigation sites are intended to replace the lost functions of aquatic resources permitted for impacts, it is unclear how the use of NWPs on mitigation sites is consistent with the "no-net-loss of wetlands" policy. The TCEQ recommends that activities proposed for authorization under NWPs not be allowed at mitigation sites and that an individual permit be required. If this is not practicable, please provide an explanation regarding the need for use of NWPs on mitigation sites.

The EPA's July 22, 2016 letter recommended the proposed regional condition be modified as follows: For mitigation (i.e. restoration) activities proposed for authorization under NWP at sites identified as compensatory mitigation sites (either permittee-responsible, mitigation bank and/or in-lieu fee) under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899, the applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32 (Pre-Construction Notification) prior to commencing the activity. For "non-mitigation activities" all NWPs are suspended at sites identified as compensatory mitigation sites.

The USFWS's July 21, 2016 letter supports the Corps' proposed regional condition but is concerned that the language is ambiguous. It is not clear to the USFWS that the issue being addressed is for alterations of previously authorized plans for compensatory mitigation sites (by the responsible party or the third party mitigation provider) or if it is meant to address proposed new impacts on such sites by additional parties. Regardless, the USFWS recommends that these actions either, (1) automatically undergo an individual permit review, as compensatory mitigation sites should be presumed to be protected by conservation easement or other restrictive covenant, or, (2) at a minimum, that the proposed action impacting or altering a compensatory mitigation site be coordinated with the resource agencies for review and comments and including Interagency Review Team (IRT) review for impacts proposed to existing in-lieu-fee projects or mitigation banks. Likewise, the USFWS recommends the word

"identified" in this proposed RC be changed to "previously authorized" to clarify that the issue being addressed is an impact to an existing, previously authorized compensatory mitigation site.

Response: The purpose of this regional condition is to assure that non-reporting NWP's are not used in compensatory mitigation sites approved as a condition of a Department of the Army permit. Most compensatory mitigation plans are authorized as a condition of a permit, including both individual and general permits. Others are associated with a Mitigation Banks Instrument or In-Lieu-Fee Agreement in accordance with 33 CFR 332. The development of this regional condition assures that all activities proposed within an approved compensatory mitigation site are reviewed and verified by us prior to being conducted. We agree that activities proposed at a compensatory site that do not support the stated goals of the approved mitigation plan are likely to have more than minimal individual or cumulative adverse environmental effect and would require evaluation under an individual permit.

2.2.4 Proposed Regional Condition 8 states: Dredge and Fill Activities in Intermittent and Perennial Streams, and Special Aquatic Sites: (a) For all activities subject to regulation under the Clean Water Act Section 404 in intermittent and perennial streams, and special aquatic sites (including wetlands, riffle and pool complexes, and sanctuaries and refuges), pre-construction notice to the District Engineer is required in accordance with General Condition 32.

Freese and Nichols' February 10, 2017 letter stated that while special aquatic sites and streams are important aquatic resources in the region, and therefore, warrant protection, this new condition would place undue burdens on applicants for discharges of negligible and/or insignificant quantities of fill within any jurisdictional wetland and most stream types within the district. Negligible and/or insignificant quantities of fill related to small projects like routine maintenance activities would have no more than a minimal impact on waters of the U.S., and therefore, do not warrant the unnecessary project delays and costs related to a pre-construction notice. Furthermore, this condition would even trigger notification for negligible amounts of temporary fill related to water quality best management practices installed temporarily to protect/benefit aquatic resources. Freese and Nichols' recommend revising this condition by reinstating an acreage limit (such as 1/10 acre) that would trigger a pre-construction notice under this condition.

GPA Midstream's February 12, 2017 letter stated that GPA Midstream believes this requirement for pre-construction notification for all special aquatic sites is unnecessary and over burdensome. GPA requests this requirement be removed or further information and justification be required from the Corps.

W&M Environmental Group's February 10, 2017 comment requested the Corps not require compensatory mitigation for stream impacts based on a linear footage threshold. NWP 18 is already steering applicants toward avoidance and minimization by using a volume threshold that allows some impacts to ephemeral streams that may slightly

exceed 300 linear feet of very small streams that are located at the extreme upper reaches of jurisdiction. Where an applicant can currently adjust a project to fit impacts under the 10 cubic yard impact to avoid the cost and delay of the pre-construction notification, removing that incentive will eliminate projects or result in impacts to larger volume stream segments. The standard operating procedures for mitigation are due for revisions. The costs for stream mitigation are too high, especially in secondary and tertiary service areas of mitigation banks. The prioritization of use of mitigation bank credits when the site is within a secondary or tertiary service area is not beneficial to the watershed where the project is located.

Response: Both TPWD and USFWS have provided peer-reviewed scientific papers to support their recommendation that streams losses in excess of as little as 50 feet constitute a more than minimal adverse impact to the environment. The EPA and Corps' Compensatory Mitigation Rule (33 CFR 332) identifies streams as difficult-to-replace aquatic resources and the EPA made multiple recommendations for culvert requirements on several NWPs. Among many other functions, tens of millions of migratory birds are dependent on wetland and riparian stopovers in arid and semiarid regions of North America during migration. Under current conditions, these habitats are declining in quantity and quality. To assure that no more than minimal individual or cumulative adverse environmental effect occur in the region to these important aquatic resources, the Albuquerque District developed the regional condition to address both special aquatic site and stream loss.

The Texas Pipeline Association February 13, 2017 letter stated TPS believes that the proposed requirement to submit pre-construction notifications for activities in wetlands generally are unwarranted and would cause undue burden. In particular, discharges associated with NWP 12 (commonly used in our industry for pipeline-related activities) must comply with Section 404(b)(1) guidelines regarding, inter alia, minimization of adverse impact on aquatic ecosystems. This being so, adequate protection for wetlands is already built into the process. An additional layer of regulatory oversight is therefore unnecessary.

Response: Applicants are not required to conduct an alternatives analyses for specific activities authorized by NWPs including demonstrating avoidance or compliance with the 404(b)(1) Guidelines. (see 40 CFR 230.7(b)(1)) We conducted our 404(b)(1) Guidelines analysis at both a national and regional level for the NWPs, as demonstrated in the national and supplemental decision documents. Our regional analysis concluded that in addition to the NWP terms and NWP General Conditions, additional regional conditions are required so that the activities authorized by the NWPs do not result in significant degradation.

2.2.5 Proposed Regional Condition 9 states: Springs. For all discharges of dredged or fill material within 100 feet of the point of groundwater discharge of natural springs, pre-construction notice is required to the Corps in accordance with General Condition 32. A natural spring is defined as any location where ground water emanates from a

point in the ground and has a defined surface water connection to another waters of the United States. For purposes of this regional condition, springs do not include seeps or other groundwater discharges which lack a defined surface water connection.

No comment was received on the regional condition.

2.2.6 Proposed Regional Condition 10 states: Suitable Fill. Use of broken concrete as fill or bank stabilization material is prohibited unless the applicant demonstrates that its use is the only practicable material (with respect to cost, existing technology, and logistics). Any applicant who wishes to use broken concrete as bank stabilization must provide notification to the District Engineer in accordance with General Condition 32 (Pre-Construction Notification) along with justification for such use. Use of broken concrete with rebar or used tires (loose or formed into bales) is prohibited in all waters of the United States.

No comment was received on the regional condition.

2.2.7 Proposed Regional Condition 12 states: For all discharges proposed for authorization under all NWP's, into the area of Caddo Lake within Texas that is designated as a "Wetland of International Importance" under the Ramsar Convention, the applicant shall notify the Fort Worth District Engineer in accordance with the NWP General Condition 32. The Corps will coordinate with the resource agencies as specified in NWP General Condition 32(d) (Pre-Construction Notification).

TPWD's February 10, 2017 letter stated that it appreciates the identification of Caddo Lake as a designated "wetland of international importance" and the requirement to coordinate with resource agencies.

2.2.8 Proposed Regional Condition 13 states: Compensatory mitigation is required for all losses of waters of the United States that exceed 1/10 acre and for all losses to streams that exceed 300 linear feet. Mitigation thresholds are cumulative irrespective of aquatic resource type. Compensatory mitigation requirements will be determined in accordance with the appropriate district standard operating procedures and processes. The applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32 (Pre-Construction Notification) prior to commencing the activity.

The USFWS's July 21, 2016 letter recommends the Corps retain RC 1 from the 2012 NWP's and its requirement for compensatory mitigation at a minimum of one-to-one ratio for all "special aquatic site losses that exceed 1/10th acre" and not just those for wetlands as required by NWP General Condition 23.

The EPA's July 22, 2016 letter recommended that former Regional Condition 1 be retained, but in a modified form: Compensatory mitigation is required at a minimum one-for one ratio for all special aquatic sites that exceed 1/10 acre and require pre-construction notification.

The EPA's July 22, 2016 letter recommended the regional condition change to "In-kind compensatory mitigation at a minimum one-for-one ratio will be required for all stream losses and require notification in accordance with General Condition 32(Pre-Construction Construction Notification), unless the District Engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement."

Response: The Fort Worth District has developed the regional condition for loss of all waters of the United States that exceed 1/10th of an acre and 300 linear feet of stream. Compensatory mitigation requirements will be determined in accordance with the appropriate standard operating procedures and processes.

TxDOT's July 21, 2016 letter requested clarification. This regional condition could be interpreted to mean that all stream losses exceeding 300 linear feet would require notification and compensatory mitigation (along with the same requirement for the loss of 0.1 acre of other waters of the U.S.), or it could be interpreted to mean that all stream losses 1) exceeding 300 linear feet AND 2) 0.1 acre would require notification and compensatory mitigation. If the intent is to establish a pre-construction notice requirement for stream losses exceeding 300 linear feet, TxDOT recommends either revising the sentence structure and verbiage to explicitly state the compensatory mitigation requirements or, at a minimum, revising the proposed language to read "more than 300 linear feet of streams and more than 0.1 acre for all other waters of the U.S. More importantly, TxDOT recommends omitting these new pre-construction notice and compensatory mitigation requirements for projects that do not otherwise require a pre-construction notice.

TxDOT's February 7, 2017 letter stated that the regional condition would require compensatory mitigation for projects that would cause the loss of more than 300 linear feet of stream but not otherwise require a pre-construction notice, and subsequently result in a new pre-construction notice trigger. Under NWP 14, which is commonly utilized by TxDOT, the regional condition would result in a new pre-construction notice trigger for losses of streams that are less than approximately 15 feet wide (wider streams with 300 linear feet of loss would have already triggered a pre-construction notice because of the 1/10 acre threshold). And under NWP 13, the regional condition would result in a new pre-construction notice trigger for losses of streams between 300 and 500 linear feet. Under both NWPs 14 and 13, the compensatory mitigation requirement and subsequent pre-construction notice trigger would be new. These new requirements would make permitting much more stringent and create costly implications for TxDOT and other members of the regulated public.

Response: The Fort Worth District has clarified the regional condition to state that when the loss of stream bed plus any other losses of jurisdictional wetlands and waters

caused by the NWP activity exceed a total of 1/10-acre pre-construction notification and compensatory mitigation is required. Those NWPs requesting a waiver for the 300-foot limit are already required by General Condition 32 to submit a pre-construction notification and be coordinated with the agencies. We would also like to clarify that this requirement is not new, the 2012 NWPs included this requirement in Regional Condition 1.

TxDOT's February 7, 2017 letter recommended revising the statement to read "mitigation thresholds are cumulative at a given crossing irrespective of aquatic resource type," in order to clarify that this statement refers to a given single and complete crossing along a linear project, and not to the total of all multiple single and complete crossings along an entire linear project.

Freese and Nichols' February 10, 2017 letter recommend revising the second sentence to read as follows: "Mitigation thresholds are cumulative irrespective of aquatic resource types at each single and complete crossing." the Corps should define how this Regional Condition would apply to linear projects vs. non-linear projects. For example, single and complete crossings for linear transportation projects should be calculated separately unless there is more than one aquatic resource at the specific crossing such as a stream and an adjacent wetland that would result in a cumulative impact that exceeds 1/10 acre. As written, this proposed Condition ignores the concept of single and complete crossings which could result in a substantial expansion of mitigation requirements for minimal-effects activities.

Response: For NWPs 12 and 14 the mitigation thresholds of 0.1 acre and 300 linear feet would apply to each single and complete crossing as defined by the "single and complete linear project" in the NWP definitions.

The July 22, 2016 TPWD letter recommended former Regional Condition 1 should require federal and state natural resource agencies be provided the opportunity to review and provide comments on proposed project-specific waivers (i.e., case-by-case waiver decisions), and not allow project-specific waivers for pre-construction notice requirements when special aquatic sites are impacted.

Response: Proposed in the 2017 NWPs are 12 NWPs which are authorized to have waivers; 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52 & 54. Of these, 13, 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 require agency coordination in accordance with General Condition 32 if a waiver is requested. Waivers are not granted for special aquatic sites except under NWP 13, which requires agency coordination. The remaining NWPs, 36 and 54, only require waivers for discharges in open water. If the review for a waiver, after a case-specific analysis including consideration of mitigation and agency comments, concludes that the activity would result in more than minimal adverse effects, then an individual permit would be required.

2.2.9 Proposed Regional Condition 16 states: No NWPs, except NWP 3, shall be used to authorize discharges into the habitat types or specific areas. The applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32, Pre-Construction Notification (pre-construction notice) prior to commencing the activity under NWP 3.

- a. Mangrove Marshes. For the purpose of this regional condition, Mangrove marshes are those waters of the United States that are dominated by mangroves (*Avicennia* spp., *Laguncularia* spp, *Conocarpus* spp., and *Rhizophora* spp.).
- b. Coastal Dune Swales. For the purpose of this regional condition, coastal dune swales are wetlands and/or other waters of the United States located within the backshore and dune areas in the coastal zone of Texas. They are formed as depressions within and among multiple beach ridge barriers, dune complexes, or dune areas adjacent to beaches fronting tidal waters of the United States.
- c. Columbia Bottomlands. For the purpose of this regional condition, Columbia bottomlands are defined as waters of the United States that are dominated by bottomland hardwoods in the Lower Brazos and San Bernard River basins.

The July 22, 2016 TPWD letter recommended Regional Condition 8 should include the four species of mangroves in North America: black mangrove, red mangrove, white mangrove, and button mangrove as part of the marsh mangrove definition.

TPWD's February 10, 2017 letter stated they appreciate the clarification and inclusion of mangrove marshes, coastal dune swales, and Columbia Bottomland habitats.

Response: Although we do not consider all four of these species to be common along the Texas coast, The Galveston District updated the regional condition to identify the additional species requested by TPWD.

Perennial Environmental Services' February 10, 2017 and GPA Midstream's February 12, 2017 letters recommend that linear transportation projects continue to be authorized under NWPs 12 and 14 when crossing Columbia Bottomlands, provided construction activities take place in accordance with NWP general conditions. According to The Nature Conservancy, the Columbia Bottomlands encompass approximately 700,000 acres within the Galveston District. Due to its size and location, it will be virtually impossible for many linear transportation projects in southeast Texas to reach coastal refineries or other infrastructure without crossing designated Columbia Bottomlands. If linear utility projects are no longer authorized under the NWP Program within Columbia Bottomlands, one of two scenarios will occur. A given project will attempt to commit to avoiding all forested wetlands via multiple horizontal directional drills (HDD); or an individual permit will be pursued. If the HDD option is pursued, large additional temporary workspace (ATWS) areas will be situated within uplands (usually forested) adjacent to every forested wetland crossing to provide sufficient workspace area for drill pads, construction equipment, etc. This in turn will result in an increase of forest conversion and habitat fragmentation, as the Columbia Bottomlands contain numerous wetland and upland complexes throughout its designation.

Freese and Nichols' February 10, 2017 letter stated the Corps should provide a definitive geographic boundary or a source showing definitive limits regarding the area covered by the Columbia Bottomlands.

The Texas Pipeline Association February 13, 2017 letter stated they are opposed to the elimination of coverage of certain NWP's in the Columbia Bottomlands. As long as permitted activities are in compliance with NWP general conditions, the Association sees no need to eliminate the ability of companies to utilize NWP's in these areas. The Columbia Bottomlands is a large area located along and near the Gulf Coast near Houston. Because the area is geographically proximate to a significant amount of oil and gas activities and infrastructure, eliminating the ability to use NWP's 12 and 14 in this area will cause a substantial disruption, delay, and increased expense for construction activities on pipelines that traverse the area, as companies might be forced to undergo the lengthy process of applying for and obtaining an individual permit.

Response: The regional condition is only applicable to waters of the United States identified in the Columbia Bottomland maps developed from the 1997 Memorandum of Agreement between the EPA, USFWS, NRCS, and TPWD for bottomland hardwoods in Brazoria County. These maps will be provided to the public and do not constitute the full acreage described by the Nature Conservancy. Forest conversion and habitat fragmentation frequently occur in uplands located in the Columbia Bottomlands and are not subject to Section 404 of the Clean Water Act and do not require a permit; this regional condition is unlikely to change that. The EPA and USFWS frequently designate Columbia Bottomland wetlands as Aquatic Resources of National Importance (ARNI) in accordance with Section 404(q) Memorandums of Agreement. The loss or conversion of ARNIs results in more than minimal individual or cumulative adverse environmental effect and will be evaluated under an individual permit.

2.2.9.1 Reason for Exclusion of Mangrove Marshes: Of the four species of mangroves common to the Gulf of Mexico, the black and red mangrove are species able to sufficiently tolerate Texas winters. Even so, their extent within the Galveston District is limited. Mangrove communities are most prevalent from central Texas, southward. They reach their greatest development on warm bay shores that are protected from exposure to high waves or strong currents. Black and red mangroves have one of the highest salt tolerances of all mangrove species; however, they lack the stereotypical aerial prop roots that facilitate exploitation of permanently subtidal, nearshore waters. Hence, their seaward extent at any one location is limited. Mangroves occupy the same ecological niche and perform the same ecological functions within central and southerly located Texas estuaries, as do the salt marshes that are more commonly located within the less saline estuaries of the upper Texas coast. Within each stand of mangroves, sediment accretion takes place as root systems effectively stabilize the mud. Leaf litter is broken down by primary consumers such as small crustaceans and decomposed by bacteria and fungi; thereby resulting in detritus that adds bulk and substance to the soil. Spring tides regularly inundate these areas, depositing fine sediments, strands of algae and other debris, which together with progressively decomposing leaf litter, turn the water into rich organic soup. Molluscs,

and larger crustaceans (mainly crabs and shrimp species), feed on this organic material. Juvenile fish, utilizing the mangroves as protective nursery habitat, ingest these organisms and, in turn, become food for many species of wading shorebirds (e.g. herons, egrets, bitterns). In spite of their ecological importance, mangrove communities are still one to the least studied habitats of the western Gulf of Mexico. Efforts at reproducing mangrove habitats have been largely unsuccessful. The Galveston District therefore believes that it is necessary to examine with greater scrutiny, via the individual permit process, both the individual and cumulative impacts to black mangrove habitat that may result from discharges potentially authorized by this NWP.

2.2.9.2 Reason for Exclusion of Coastal Dune Swales: Few waters of the U.S. of this type exist along the Texas coast. While relatively small, freshwater wetland coastal dune swales are extremely important foraging, nesting and cover sites for several species of migratory and resident aquatic birds. These wetlands often provide a rare source of fresh water for avian species such as mottled duck (*Anas fulvigula*), and the white-faced ibis (*Plegadis chihi*). These swales are also the only available habitat in their locality for many amphibians. For example, all eight species of frogs and toads that are known to exist on barrier islands in Texas, require habitat such as this for their existence. Seven species of reptiles such as the gulf salt marsh snake (*Nerodia clarki*), also found on barrier islands, utilize freshwater wetland swales. Of these reptiles, the red-eared turtle (*Chrysemys scripta*) and the western ribbon snake (*Thamnophis proximus*) are totally restricted to freshwater habitats. It is likely that similar relationships between birds, reptiles, and amphibians exist on other barrier islands of the Texas coast which contain freshwater wetland dune swales. Coastal dune swales also reduce erosion by stabilizing and anchoring soil. They act as reservoirs for runoff during periods of high rainfall. From 1981-1989, the acreage of wetland swales on Galveston Island decreased from 32 to 25 acres, and approximately 12 acres remained in 1994. The Galveston District is concerned about the cumulative losses that have occurred thus far to this type of wetland, due to both regulated and non-regulated activities. The District is therefore excluding the use of this NWP for discharges in these aquatic resource areas. Such activities will instead have to be reviewed via the individual permit process. They will be subject to a review of alternatives and other public interest factors.

2.2.9.3 Reason for Exclusion of Columbia Bottomlands: The Columbia Bottomlands are characterized by the mixed hardwood forests stretching across the floodplains of three major rivers (Colorado, San Bernard, and Brazos) and their associated bayous. Many species of trees may be found in these areas, including green ash (*Fraxinus pennsylvanica*), hackberry (*Celtis occidentalis*), honey locust (*Gleditsia triacanthos*), pignut (*Carya glabra*), hickory (*Carya* spp.), cherry laurel (*Prunus laurocerasus*), American beech (*Fagus grandifolia*), magnolia (*Magnolia grandiflora*) and pecan (*Carya illinoensis*) trees. (Rosen et al. 2008) The area is an important stopover habitat for migrating neotropical birds like hummingbirds, warblers, thrushes and orioles. During the height of migration, it is estimated that 239 million birds representing 237 species pass through the Columbia Bottomlands each spring. Once covering over a thousand square miles, the bottomlands have been reduced to 250 square miles. The forests

contain the last remaining examples of the Brazoria palm and the state's oldest and largest live oak trees. Decades of experience with permitting a limited number of actions in these habitat areas has demonstrated that impacts are long-lasting and new habitat is difficult to recreate using conventional mitigation techniques. The Corps has therefore determined that pre-construction notifications will be required for all discharges proposed under this NWP within these aquatic resource areas. Case-by-case reviews of activities that could potentially impact these areas will provide an opportunity to add project-specific conditions to the authorizations, if applicable, in order to reduce individual and cumulative impacts to the resource that could result from NWP permitting activity. This type of review also provides an opportunity for the Corps to take discretionary authority, if appropriate, and require that the project be evaluated via the individual permit process. It would then be subject to a review of alternatives and other public interest factors. The areas excluded are limited to waters of the United States, including wetlands, located in areas of concern identified in the Columbia Bottomland maps developed from the 1997 Memorandum of Agreement between the EPA, USFWS, NRCS, and TPWD for bottomland hardwoods in Brazoria County. Maps of these areas will be provided to the public.

2.2.10 Proposed Regional Condition 17 states: Compensatory mitigation is required for all special aquatic site losses that exceed 1/10 acre and for all losses to streams that exceed 200 linear feet. Compensatory mitigation requirements will be determined in accordance with the appropriate district standard operating procedures and processes. The applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32 (Pre-Construction Notification) prior to commencing the activity.

The USFWS's July 21, 2016 letter recommends the Corps retain Regional Condition 1 from the 2012 NWPs and its requirement for compensatory mitigation at a minimum of one-to-one ratio for all special aquatic site losses that exceed 1/10th acre and not just those for wetlands as required by NWP General Condition 23.

The EPA's July 22, 2016 letter recommended this condition be modified as follows: In-kind compensatory mitigation at a minimum one-for-one ratio will be required for all stream losses that exceed 200 linear feet and require notification in accordance with General Condition 32 (Pre-Construction Notification).

The EPA's July 22, 2016 letter recommended that former Regional Condition 1 be retained, but in a modified form: Compensatory mitigation is required at a minimum one-for one ratio for all special aquatic sites that exceed 1/10 acre and require pre-construction notification.

The July 22, 2016 TPWD letter recommended former Regional Condition 1 should not be excluded. It should be reinstated and reauthorized to require one for one compensatory mitigation for loss of all special aquatic sites including seagrass and oyster habitat losses greater than one-tenth acre.

Response: The Galveston District has developed the regional condition for loss of all special aquatic sites that exceed 1/10th of an acre and 200 linear feet of stream. Compensatory mitigation requirements will be determined in accordance with the appropriate standard operating procedures and processes.

The July 22, 2016 and February 10, 2017 TPWD letters recommended former Regional Condition 1 should require federal and state natural resource agencies be provided the opportunity to review and provide comments on proposed project-specific waivers (i.e., case-by-case waiver decisions), and not allow project-specific waivers for pre-construction notice requirements when special aquatic sites are impacted.

Response: Proposed in the 2017 NWP's are 12 NWP's which are authorized to have waivers; 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52 & 54. Of these, 13, 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 require agency coordination in accordance with General Condition 32 if a waiver is requested. Waivers are not granted for special aquatic sites except under NWP 13, which requires agency coordination. The remaining NWP's, 36 and 54, only require waivers for discharges in open water. If the review for a waiver, after a case-specific analysis including consideration of mitigation and agency comments, concludes that the activity would result in more than minimal adverse effects, then an individual permit would be required.

TPWD's February 10, 2017 letter stated that they appreciate the Galveston District's regional condition requires compensatory mitigation for all special aquatic site losses that exceed 1/10 acre and for all losses to streams that exceed 200 linear feet. However, mitigation thresholds should be cumulative irrespective of aquatic resource type.

Response: The Galveston District has clarified the regional condition to indicate that the requirement does not occur when you have both a greater than 1/10th acre loss and greater than 200-linear-foot loss to streams but a greater than 1/10th acre loss and/or greater than 200-linear-foot loss to streams. The requirement that mitigation thresholds being cumulative irrespective of aquatic resource type means that all impacts proposed with the activity, not just those that triggered the requirement under the regional condition, will be considered in the mitigation.

TxDOT's February 7, 2017 letter stated the regional condition would require compensatory mitigation for projects that would cause the loss of more than 1/10 acre of a special aquatic site and/or 200 linear feet of stream but not otherwise require a pre-construction notice, and subsequently result in a new pre-construction notice trigger. Changing the compensatory mitigation threshold from 300 to 200 linear feet would constitute a 33% reduction in the length of stream loss that, until now, has been considered a minor loss that would result in no more than minimal individual and cumulative adverse environmental impacts. Thirty-three percent (33%) is a significant

change - one that, to TxDOT's knowledge, came without published environmental findings to explain, support, or justify it. These new requirements would overburden the regulated public with excessive and costly mitigation requirements for what have previously been considered by the USACE to be minor losses.

Freese and Nichols' February 10, 2017 letter stated reducing the stream threshold to 200 linear feet unnecessarily expands the Corps' reach by requiring pre-construction notices for an increasing number of minimally-impacting activities. This regional condition should clarify that the mitigation thresholds would apply separately to each single and complete crossing. The proposed Condition also should differentiate between flow types such as perennial, intermittent, and ephemeral to be consistent with the Corps NWPs which allow District Engineers to waive the stream length thresholds for intermittent and ephemeral streams in certain cases. Because this is a proposed Galveston District condition, it should refer specifically to the Galveston District Engineer rather than the "appropriate District Engineer."

Response: Both TPWD and USFWS have provided peer-reviewed scientific papers to support their recommendation that streams losses in excess of as little as 50 feet constitute a more than minimal adverse impact to the environment. The EPA and Corps' Compensatory Mitigation Rule (33 CFR 332) identifies streams as difficult-to-replace aquatic resources and the EPA made multiple recommendations for culvert requirements on several NWPs. While we did not concur with these recommendations, we would like to clarify that this requirement is similar to the existing 2012 NWP's Regional Condition 1. To address continued concerns raised by state and federal agencies, the Galveston District revised the regional condition to address both special aquatic site and stream loss. The threshold of 200 linear feet, or approximately sixteen 12-foot freeway lanes, was determined to be appropriate to protect the aquatic environment and the public interest while effectively authorizing activities that have no more than minimal individual and cumulative adverse environmental effects.

2.2.11 Proposed Regional Condition 26 states: The use of NWPs in the San Jacinto River Waste Pits Area of Concern are revoked.

The EPA's July 22, 2016 letter recommended the regional condition be modified to suspend the use of NWPs in the San Jacinto Waste Pits Area of Concern.

The July 22, 2016 TPWD letter recommended the Corps modify the regional condition so that all proposed work in the San Jacinto Waste Pits Area of Concern be authorized through the Corps Public Notice (individual permit) process, not under a NWP, and no waivers should be granted.

Response: The Galveston District developed Regional Condition 29 revoking the use of NWPs in the San Jacinto Waste Pits Area of Concern.

GPA Midstream's February 12, 2017 letter requested that Corps reconsider allowing the use of NWP's within the San Jacinto River Waste Pits Area of Concern. Alternately, the Corps could consider limiting the retraction of NWP's in this area to activities within Section 10 waters only. The referenced area of concern encompasses upland areas and GPA Midstream believes that NWP's should be authorized above the high tide line and/or for activities that do not disturb the mud line below the water.

The Texas Pipeline Association February 13, 2017 letter stated they are opposed to the elimination of coverage of NWP's within the San Jacinto River Waste Pits Area of Concern. As long as permitted activities are in compliance with NWP general conditions, the Association sees no need to eliminate the ability of companies to utilize NWP's in these areas. In addition, with respect to the San Jacinto River Waste Pits Area of Concern, they support GPA Midstream's alternative position to consider limiting the retraction of the NWP's to activities within Section 10 waters only. The proposed curtailment or elimination of NWP coverage in these areas appears to be overbroad, unreasonable and would result in a situation where any environmental benefit would be greatly outweighed by the burden that the proposal would place on the natural gas industry.

Response: Department of the Army permits are only required for losses of waters of the United States, including wetlands. This addition of this regional condition does not expand our regulatory authority into the uplands located in the San Jacinto Waste Pits Area of Concern.

W&M Environmental Group's February 10, 2017 comment stated tis regional condition unfairly targets applicants located within the San Jacinto Area of Concern. They know there are impacts in the sediment from the San Jacinto Waste Pits and are already required to handle them appropriately. This condition is especially onerous given that applicants within the AOC have been waiting for periods of time beyond performance standards for documentation of non-NWP permits.

Response: On March 19, 2008, the EPA placed the San Jacinto River Waste Pits Superfund Site (Site) on the National Priorities List marking the beginning of the EPA's cleanup of the Site through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. We continue to be concerned that permitted activities that impact the within the San Jacinto Area of Concern may expose permittees to CERCLA liability. To minimize permittee exposure to CERCLA liability and to continue to effectively evaluate proposed and permitted activities, we have used our discretion to revoke NWP's and requires activities within the San Jacinto Area of Concern be evaluated under and individual permit.

2.2.11.1 Reason for Exclusion of San Jacinto Waste Pits. On March 19, 2008, the EPA placed the San Jacinto River Waste Pits Superfund Site (Site) on the National Priorities List marking the beginning of the EPA's cleanup of the Site through the

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. We continue to be concerned that permitted activities that impact within the San Jacinto Area of Concern may expose permittees to CERCLA liability. To minimize permittee exposure to CERCLA liability and to continue to effectively evaluate proposed and permitted activities, we have used our discretion to revoke NWP and require activities within the San Jacinto Area of Concern be evaluated under an individual permit. A map of the San Jacinto Waste Pits Area of Concern will be provided to the public.

2.2.12 Proposed Regional Condition 29 states: Stream losses exceeding 300 linear feet have more than minimal effect and will require an Individual Permit.

The USFWS's July 21, 2016 letter recommended the regional condition include resource agency coordination in accordance with NWP General Condition 32(d) for all proposed project-specific waivers.

The July 22, 2016 TPWD letter recommended that as a requirement of this regional condition, project-specific waivers (i.e., case-by-case waiver decisions) for any stream losses that exceed 300 linear feet or one-half acre should not be authorized under NWPs.

Response: Galveston District developed this regional condition requiring an individual permit for all stream losses exceeding 300 linear feet. Activities that propose impacts to greater than 300 linear feet will be required to apply for an individual permit.

TxDOT's February 7, 2016 letter states that they strongly objects to the regional condition and urged the Corps to reconsider and omit this new, extremely burdensome requirement. To TxDOT's knowledge, there is no published body of evidence that would support the need to elevate all projects with stream losses exceeding 300 linear feet to an individual permit. Because of the wide array of jurisdictional streams throughout the state, it is not reasonable to contend that losses in excess of 300 linear feet would amount to more than minor loss in every situation.

Freese and Nichols' February 10, 2017 letter stated that indiscriminately requiring an individual permit for all stream losses exceeding 300 linear feet unnecessarily expands the Corps' reach by requiring a time-consuming and costly standard individual permit application for potentially minimally-impacting activities. This proposed regional condition should differentiate between flow types such as perennial, intermittent, and ephemeral to be consistent with Corps' NWPs which allow District Engineers to waive the stream length thresholds for intermittent and ephemeral streams in certain cases.

W&M Environmental Group's February 10, 2017 comment requested the use of waiver to utilize NWPs for impacts to streams over 300 linear feet. Allow the District Engineer to decide on a case-by-case basis whether they can issue a waiver and use a NWP

where the applicant can make a case that impacts to the stream have a minimal effect on aquatic systems. Not all streams are equal. Where an arbitrary linear footage threshold is imposed as a condition for use of NWP the district is taking away the tremendous advantage that NWP can offer to applicants and further burdening a permits section that is not currently meeting performance standards.

Response: Both TPWD and USFWS have provided peer-reviewed scientific papers to support their recommendation that stream losses in excess of as little as 50 feet constitute a more than minimal adverse impact to the environment. The EPA and Corps' Compensatory Mitigation Rule (33 CFR 332) identifies streams as difficult-to-replace aquatic resources and the EPA made multiple recommendations for culvert requirements on several NWPs. While we did not concur with these recommendations, we do agree that stream loss of more than 300 feet, or approximately twenty-five 12-foot-wide freeway lanes, in this region results in a more than minimal effect and will require an individual permit.

TPWD's February 10, 2017 letter agrees with the Galveston District's regional condition prohibiting use of any NWPs for authorizing stream losses exceeding 300 linear feet. TPWD proposes that the regional condition apply to the entire State of Texas requiring resource agency coordination.

Response: The regional differences between similar aquatic resources in a large geographic area such as Texas do not warrant a blanket conclusion that stream losses exceeding 300 linear feet result in a more than minimal effect in every stream in Texas. Requests for those NWPs in other districts that require waivers for stream impacts exceeding 300 linear feet will continue to be coordinated with the agencies in accordance with General Condition 32(d).

2.2.29.1 Reason for Notification Requirement and Prohibition on Waivers for Streams: Human activities have almost universally played an important role in shaping and disturbing stream ecosystems nationwide (Petersen et al. 1987, Resh and Grodhaus 1983). Stream ecosystems are particularly sensitive to construction in both the channel and within the riparian zone due to unique characteristics of the fluvial environment and biota. In addition, the increased downstream transport of water and sediment resulting from construction spreads chemical and fine sediment pollution, causing the ecological impacts of construction in and along streams to extend farther in streams than in other aquatic environments (Fonnan and Alexander, 1998).

In 1976, Weber and Reed concluded that even with the presence of functioning sediment-control best management practices, streams impacted by construction carried 5 to 12 times more fine sediment than control streams in their study. Barton, in 1977, concluded that suspended solids load of his study stream increased from an average of 2.8 mg/l to 352.0 mg/l during the initial clearing phase of the construction and peaked at 1,390 mg/l during the height of construction. In addition, Barton observed a 10-fold increase in downstream fine sediment deposition following a channelization project. A

study funded by TxDOT on Danz Creek, an ephemeral stream in Travis County, Texas, found a least a five-fold increase in the concentration of suspended solids even with the presence of an extensive system of temporary controls (Barrett et al. 1995). These increases in suspended sediment load are detectable for long distances (miles) downstream of construction sites (Wellman et al., 2000) and the sediments deposit in the important downstream habitats found in pools, riffles, and small impoundments such as check-dams (Duck, 1985; Brookes, 1986). The overall conclusion is that streams impacted by construction accumulate (Clarke and Scruton, 1997) and transport (Weber and Reed, 1976) many times more sediment than undisturbed streams.

Aquatic fauna often have a more difficult time avoiding these increased sediment loads than other fauna that utilize streams because their movements are generally confined to the narrow linear geometry of the stream channel. The effect of fine sediments on stream biota has been recognized for decades (Ellis, 1936) and is the subject of many reviews (Chutter, 1969; Bruton, 1985; Ryan, 1991; Waters 1995; Wood and Armitage, 1997; Henley et al., 2000). The effects of the increased sediment load from construction can immediately alter macroinvertebrate and fish communities as a result of a variety of mechanisms (Barton, 1977). Stream periphyton and macrophytes are abraded, suffocated, and shaded by sediment (Waters, 1995). Increased sediment loads impact macroinvertebrates by inducing catastrophic drift (Culp et al., 1986), damaging individual's respiratory structures (Lemly, 1982), and reducing macroinvertebrate habitat by clogging interstitial spaces in streambeds (Lenat et al., 1981). Increased sediment can also clog the gills of fishes and reduce the quality of their habitats for feeding by impairing visibility and reducing prey abundance (Bruton, 1985) resulting in lower reproductive success of fishes (Burkhead and Jelks, 2001). The result is population reductions of over 50% for both insectivorous and herbivorous fishes (Whitney and Bailey, 1959; Barton, 1977; Berkman and Rabeni 1987). Fish and invertebrate communities may begin recovering after the fine sediment loads are reduced and deposits wash downstream, but full recovery will require years (Taylor and Roff, 1986).

In addition, construction alters the hydraulic connection of streams to their watersheds, fundamentally altering the physical processes, which control channel geomorphology, form habitat, and ultimately contribute to the streams biotic integrity (Wang et al., 2001; 2003).

Channelization results in increased channel slopes, reduces base flows, increases peak flows, altered substrate composition, and severs floodplain links (Hubbard et al., 1993). These changes reduce habitat diversity characteristics of natural streams by replacing coarse substrates with finer substrates, reducing depth and velocity heterogeneity, creating more laminar flows, removing cover, and eliminating natural pool-riffle sequences (Peters and Alvord, 1964; Narf, 1985).

Physical barriers, such as culverts and fill material, isolate populations which results in reduced genetic diversity and increased probability of regional elimination due to demographic instability and impeded recolonization. While most investigations of fish

movement barriers have focused on economically important fishes with known migration patterns; entire fish communities are vulnerable to movement barriers (Jackson, 2003) and the importance of movement and movement barriers to nongame fishes and fish communities is poorly understood.

Various studies have shown that fish migration in intermittent streams is a critical aspect of stream ecology that results in consistent fish assemblages in these streams whenever water is available. Smith (1963), Larimore et al. (1959), and Matthews (1987) found consistent assemblages in their study streams and documented notable local movement of fishes recolonizing lengths of rewatered reaches of several low-gradient intermittent streams across the U.S.

Fish migration in intermittent streams is dependent on the availability of pools that hold permanent water through dry periods, referred to as perennial pools. (Schlosser, 1987; Capone and Kushlan, 1991). There is a marked difference in the dynamics of fishes of a stream reach without perennial pools, which only attains a new fish assemblage after flow resumes, and a stream reach that includes perennial pools in which some fishes can persist and rapidly move up or downstream when flow resumes. (Griswold et al. 1982; Williams and Coad 1979; and Paloumpis 1958)

Intermittent streams are a dominant component of drainage systems in the southern and coastal plains of Texas and intermittent streams with perennial pools are common. For example, the East Fork of the Trinity River in northcentral Texas has no perennial first-order streams; only 2 of 61 second-order streams maintain flow throughout the year, and 38% of the third order tributaries are intermittent. These conditions are even more pronounced in years of below normal precipitation, when even mid- order streams, listed as perennial on topographic maps, cease to flow in this region. (Hill and Gardner 1987)

Hill and Gardner (1987) compared net primary productivity and respiration stream substrate on two Texas streams; Mrs. White's Creek, a second-order perennial stream and Squirrel Creek, a third-order intermittent stream. Their study concluded that productivity in the intermittent stream, after four months without stream flow, returned within 1 month to a level comparable to the perennial stream, which experienced no cessation in flow during the study. The rapid return of "normal" levels of productivity suggests that intermittent streams may be biologically stable, relative to perennial streams of a similar size within the region. Hill and Gardner did note that the respiratory levels between the two streams were not comparable and concurred with Fisher *et. al* (1982) that the ability of intermittent stream producers to withstand desiccation and the lower levels of microbial activity following desiccation affected measured respiration rates.

Intermittent streams in the prairies and coastal plains of Texas can contain a diversity of native fish species such as Bullhead Minnow (*Pimephales vigilax*), Blacktail Shiner (*Cyprinella venusta*), Golden Shiner (*Notemigonus crysoleucas*), Bullhead Catfish (*Ameiurus* spp.), Redfin Pickerel (*Esox americanus americanus*), Pirate Perch

(*Aphredoderus sayanus*), Blackstripe Topminnow (*Fundulus notatus*), sunfishes (*Lepomis* spp.) and Slough Darter (*Etheostama gracile*) among others (Matthews 1988, Zale et al. 1989).

In contrast to intermittent streams, ephemeral stream flow precludes the occurrence of permanent fish populations of the intermittent and perennial streams, allowing for the greater abundance of amphibians (Barr and Babbitt 2002; Lowe and Bolger 2002). Ephemeral streams also contribute significantly to the streamflow, sediment, debris, organic matter, and nutrients of the downstream intermittent and perennial stream segments (Gomi et al. 2002; MacDonald and Coe 2007; Meyer et al. 2007) and influence rates of litter and organic-matter breakdown and carbon storage (Kirkman et al. 2000; Baker et al. 2001; Euliss et al. 2006; Battle and Golladay 2007; Inkley et al. 2008), the physicochemical (geochemical) environment (Magnusson and Williams 2006), the composition and breeding success of pool-breeding amphibians (Semlitsch et al. 1996; Brodman et al. 2003; Jakob et al. 2003; Skidds and Golet 2005; Baldwin et al. 2006), and the composition and richness of the invertebrate community (Schneider 1999; Brooks 2000;). Peterson et al. (2001) documented that streams in headwater areas typically export almost half the inorganic nitrogen from their watersheds.

There is compelling scientific information demonstrating that intermittent and ephemeral streams provide important chemical, physical and biological functions in local and downstream receiving waterbodies such as the rivers, bays and estuaries along the Texas coast. The Galveston District also recognizes the cumulative functional loss of these important aquatic resources, due to both regulated and un-regulated activities. The Galveston District concludes that intermittent and ephemeral streams deserve the same level of protection as perennial streams due to the important effect these small streams have on downstream waters in the region. Therefore, like perennial streams, activities proposing greater than 300 feet of loss in intermittent and ephemeral streams will require an individual permit in the Galveston District and all stream losses exceeding 200 linear feet will require preconstruction notification to determine if compensatory mitigation is required to assure that the proposed activity does not result in more than minimal adverse direct and cumulative effect on the aquatic environment.

2.2.30 Proposed Regional Condition 30 states: Upland Disposal: Material disposed of in uplands shall be placed in a location and manner that prevents discharge of the material and/or return water into waters or wetlands unless otherwise authorized by the Tulsa District Engineer.

No comment was received on the regional condition.

2.3 Recommendations for Additional Regional Conditions

2.3.1 All Nationwide Permits authorizing Culverts

The TPWD's July 22, 2016 letter requested reinstatement of former Regional Conditions 5, 6, 7, 8, 9 and 10.

The EPA's July 22, 2016 letter recommend reinstatement of Regional Conditions 5, 7, 6, and 10.

Response: The Fort Worth District replaced former Regional Condition 5 with Regional Condition 11, Regional Condition 9 with a regional note, and Regional Condition 10 with Regional Condition 14. Regional Condition 8 was replaced by General Condition 31. Regional Condition 7 was determined to no longer be necessary to assure that no more than minimal adverse effects result from the use of NWP's in the study area of the "Final Regional Environmental Impact Statement (EIS), Trinity River and Tributaries" (May 1986).

3.0 Alternatives

3.1 No Regional Conditions

If no additional regional conditions would be issued for this NWP, all work authorized by this NWP would be subject to its current terms and conditions, as well as the NWP general conditions. However, our experience with previously permitted activities has shown that regional aquatic resources need to be protected to a greater degree to prevent more than minimal individual and cumulative adverse environmental effects from occurring in the region. Proposed impacts involving these resources need to be evaluated through a case-by-case analysis. By not implementing regional conditions, this NWP has the potential to result in more than minimal impacts to waters of the U.S. which would result in suspension or revocation of the NWP in the region. As such, this alternative would not achieve one of the goals of the Corps NWP Program, which is to reduce the regulatory burden on applicants for activities that result in no more than minimal individual and cumulative adverse environmental effects.

3.2 Alternative Regional NWP Limits or Pre-Construction Notification Thresholds

Through the evaluation of the 2017 NWP's, the Corps has considered lowering or establishing acreage limits and/or linear foot limits or lowering pre-construction notification thresholds is necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal in light of other regional conditions, NWP general conditions, and current NWP pre-construction notification thresholds. When appropriate, the Corps finds lowering the pre-construction notification threshold rather than lowering the acreage and/or linear foot limits preferable. This allows the Corps to conduct an activity-specific review and determine on a case-by-case basis if the proposed activity will have more than minimal adverse effect on the environment. Regional conditions requiring pre-construction notification requirements have been

included for several NWP's to allow for a case-by-case reviews of activities that could potentially impact these areas. This review will provide an opportunity for the Corps to add project-specific conditions to the authorizations, if applicable, in order to reduce individual and cumulative impacts to the resource that could result from NWP permitting activity. This type of review also provides an opportunity for the Corps to exercise discretionary authority, and require an individual permit if necessary.

The Corps evaluated the need to include acreage and/or linear foot limits to address cumulative regional loss of rare and/or difficult-to-replace aquatic resources. In these cases, the Corps must decide to impose a cap on loss or to require compensatory mitigation to offset the loss at a threshold lower than the NWP general conditions. When appropriate, the Corps finds requiring compensatory mitigation at thresholds lower than General Condition 23 is preferable to imposing caps. This allows the Corps to make activity-specific determinations, after considering compensatory mitigation, to assure activities will result in no more than minimal individual and cumulative adverse effects on the environment. The Corps has identified several rare and/or difficult-to-replace aquatic resources in Texas that require compensatory mitigation at lower thresholds and have identified caps on loss requiring an individual permit review process.

In addition to regional limits and pre-construction notification thresholds, the Corps has evaluated the need to exclude some rare and/or difficult-to-replace aquatic resources from the NWP program. The Corps has excluded several rare and/or difficult-to-replace wetland aquatic resources from the NWP program as a result of the cumulative losses of these regional resources. Activities proposed in these wetlands will require an individual permit subject to a review of alternatives and other public interest factors.

The regional conditions relevant to this NWP include: 1, 2, 7, 8, 9, 10, 11, 12, 15, 16, 23, 28, and 29.

3.3 Other Regional Conditions

See Section 2.3 Recommendations for Additional Regional Conditions

4.0 Section 7 of the Endangered Species Act (ESA)

4.1 General Considerations

In addition to being subject to the requirements of general condition 18 (Endangered Species), under the current Corps regulations (33 CFR 325.2(b)(5)), the District Engineer must review all permit applications for potential impact on threatened and endangered species or critical habitat. For the NWP program, this review occurs when the District Engineer evaluates the pre-construction notification as a requirement for all NWP activities that might affect those listed species or their designated critical habitat, or that occur in their designated critical habitat. General condition 18 of the NWP's

provides that no activity is authorized under any NWP that may affect a listed species or critical habitat unless ESA Section 7 consultation addressing the effects of the proposed activity has been completed. General condition 18 also requires prospective non-federal permittees to notify the Corps if any federally listed threatened or endangered species, or designated critical habitat might be affected, or is in the vicinity of the project, or if the project is located in designated critical habitat. In such cases, General Condition 18 provides that the prospective permittee shall not begin work until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is authorized. If the Corps determines that the activity may affect any federally-listed species or critical habitat, the Corps must initiate Section 7 consultation with the USFWS or the National Marine Fisheries Service (NMFS) under the ESA. The Corps may authorize the activity under a NWP by adding, if appropriate, activity-specific conditions; or assert discretionary authority and require an individual permit (see 33 CFR 330.4 and 330.5) prior to, or concurrent with, Section 7 consultation. The ESA requirements are essentially the same for NWPs as for any other Corps permit type, including individual permits, in that no activity is authorized to affect a federally-listed threatened or endangered species, or its critical habitat, until the appropriate consultation with the USFWS or NMFS has occurred and the activity is expressly authorized.

Based on the evaluation of all available information, the District Engineer initiates consultation with the FWS or the NMFS, as appropriate, if he or she determines that the regulated activity may affect any threatened and endangered species or critical habitat. Consultation may occur during the NWP authorization process or the District Engineer may exercise discretionary authority to require an individual permit review for the proposed activity and initiate consultation through the individual permit process, if appropriate. If ESA consultation is conducted during the NWP authorization process without the District Engineer exercising discretionary authority, then the applicant will be notified that he or she cannot proceed with the proposed activity until ESA consultation is complete. If the District Engineer determines that the activity will have no effect on any threatened and endangered species or critical habitat, then the District Engineer will notify the applicant that he or she may proceed under the NWP authorization.

4.2 Local Operating Procedures for Section 7 of the Endangered Species Act

The Corps has an ongoing commitment to consult, informally and formally, with the USFWS and NMFS, as appropriate, case-by-case when the Corps receives pre-construction notifications, and other requests for verification, for authorization under the NWPs.

The Districts coordinate regularly with local USFWS and NMFS officials responsible for Texas and continue to update established informal local operating procedures that assist the Corps Districts in determining whether the proposed activity may affect a federally-listed threatened or endangered species or its critical habitat. The Corps will review available information and work with permit applicants to gather other necessary information, to determine whether a proposed activity may affect listed species or critical

habitat. If the activity is located within a habitat area of concern, the Corps would contact the USFWS or the NMFS, as appropriate. These procedures help to ensure that proposed Corps permit actions will not jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat of a listed species.

5.0 Section 106 of the National Historic Preservation Act

Current regulatory procedures are outlined in the 25 April 2005 Appendix C interim guidance, and 31 January 2007 Clarification of the Revised Interim Guidance, provided by the U.S. Army Corps of Engineers, Directorate of Civil Works. The Corps is in the process of revising its regulatory program procedures, Appendix C of 33 CFR 325 "Procedures for the Protection of Historic Properties", for compliance with Section 106 of the NHPA and its implementing regulations codified by the Advisory Council on Historic Preservation (ACHP) in 36 CFR Part 800. The revisions to the regulatory program procedures have been necessitated by the 2004 revisions to 36 CFR Part 800.

5.1 General Considerations

Under the current Corps regulations (33 CFR 325.2(b)(3), the Corps must review all permit applications for potential impact on properties listed or eligible for listing in the National Register of Historic Places (NRHP) and comply with the National Historic Preservation Act of 1966 (NHPA) and implementing regulations. The Corps follows the interim guidance procedures referenced in Section 5.0 above to that end. NWP general condition 20 provides that no activity is authorized under any NWP that may affect properties listed, or eligible for listing, in the NRHP, until the requirements of Section 106 of the NHPA have been satisfied. General condition 20 also requires prospective non-federal permittees to notify the Corps if any authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the NRHP, including previously unidentified properties. The Corps, working with the prospective permittee, must make a reasonable and good faith effort to carry out appropriate identification efforts. Where historic properties have been identified that have the potential to be affected by the proposed activity, the prospective permittee may not begin work until notified by the Corps that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

NWP activities are evaluated by the Corps Staff Archeologist to determine if a proposed permit action has the potential to affect historic properties. The initial evaluation process includes the review of existing cultural resource site records and reports and an evaluation of the permit area to determine the potential for the presence of cultural resources that are, or have the potential to be, eligible for listing in the NRHP. If the Corps determines that the action has no potential to affect cultural resources, the Corps will proceed to verify the NWP authorization without further consultation with the State Historic Preservation Officer (SHPO) and the Texas Historic Preservation Officer

(THPO). If the Corps determines that there will be no effect or no adverse effect to any NRHP-eligible historic property, the Corps will provide the SHPO/THPO a 30-day review of that determination prior to verifying authorization. If the Corps determines that the action may affect an NRHP-eligible historic property, the Corps will coordinate the PCNs with the SHPO/THPO. Following the initial evaluation, the Corps may either: (1) consult with the SHPO/THPO during the NWP review process, or (2) require an individual permit for the proposed work and initiate consultation through the individual permit process.

5.2 Local Operating Procedures for Section 106 of the National Historic Preservation Act

In addition to the procedures outlined in 5.1, permit areas that contain previously recorded cultural resources and/or have the potential for the presence of significant cultural resources will require a cultural resource investigation. Investigations may include, but not be limited to, cultural resources inventories (terrestrial, aquatic, and/or marine, reconnaissance and/or intensive), site delineation and NRHP testing, data recovery, avoidance plans and historic structures analysis. The level of effort involved in any cultural resource investigation is coordinated with the Corps Staff Archeologist and the SHPO/THPO by the applicant and their contracted professional archeologist. The prospective permittee compiles the results of initial work in a report and forwards the report to the SHPO/THPO for review and comment and the Corps for approval. After site identification, the Corps will select sites potentially eligible for the NRHP in consultation with the prospective permittee and the SHPO/THPO for testing. The permittee tests these sites according to a research design developed prior to this phase of field work. The permittee forwards the research design to the SHPO/THPO for review and comment and to the Corps for approval prior to implementation of testing. After testing is completed, the prospective permittee forwards a testing report to the SHPO/THPO for review and comment and the Corps for approval. The prospective permittee develops a plan for data recovery if NRHP-eligible properties are identified during the testing phase. The permittee forwards this plan to the SHPO/THPO for review and comment and the Corps for approval. The permittee compiles and forwards a completed report of the data recovery phase of work to the SHPO/THPO for review and comment and the Corps for approval. All historic properties/cultural resources work is undertaken by qualified personnel. The work is accomplished in conformance with Council of Texas Archeologists Guidelines for Field Investigations and Reporting, and the Department of the Interior's "Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines" (FR, Vol. 48, No. 190). All sites are assigned trinomial numbers and are assessed according to the criteria for the NRHP contained in 36 CFR 60.4. As noted above, prospective permittees are not authorized to initiate any construction for any undertaking that would affect an NRHP-eligible property until the significance of the property and the effects of the undertaking on the property are determined and any necessary treatment is complete. Prospective permittees may not begin work in the permit area until the Corps has verified that the requirements of 36 CFR Part 800 have been met. The Corps also considers that if a previously unknown cultural resource site is encountered in the permit area during work authorized by an

NWP, the permittee must contact the Corps and avoid further impact to the site until assessment by state and federal cultural resource specialists is complete and the Corps has verified that the requirements of 36 CFR Part 800 have been met and the Corps has notified the permittee that work may resume in the affected area.

6.0 Government-to-Government Consultation with Tribes

6.1 Consultation Summary

On March 10, 2016, the Deputy Commanding General for Civil and Emergency Operations issued guidance for conducting government-to-government consultation with tribes on the proposed 2017 NWPs. The Galveston District, as lead District for the State of Texas sent letters to the Alabama-Coushatta, Apache, Caddo, Cherokee, Choctaw, Comanche, Coushatta of Louisiana, Fort Sill Apache, Kickapoo Traditional, Kiowa, Lipan Apache, Mescalero Apache, Osage, Tonkawa, Wichita tribes to initiate consultation on the 2017 NWPs, including regional conditions, the potential for suspension or revocation of the NWP in specific geographic areas, and the development of coordination or consultation procedures for NWP PCNs.

The Southwestern Division coordinated with all interested recognized tribes by letter, and offered to hold coordination meetings. The tribes did not express an interest in holding meetings, or communicate any concerns with the revised NWPs.

6.2 Local Operating Procedures for Protecting Tribal Rights, Tribal Trust Resources, and Tribal Lands

In the Galveston District, one tribal reservation is located within its boundaries. The Alabama-Coushatta Tribe of Texas will be consulted whenever an activity is located adjacent to or on tribal property

In the Fort Worth District, at the request of a tribe, or based on ethnographic documentation, the Corps may choose to coordinate with Recognized Tribes known to have been resident in the area. The Corps will request that the Recognized Tribe provide comments on the proposed NWP action.

In the Tulsa District, there are no regional conditions that address any discovery of human remains or Native American culture objects falling under the Native American Graves Protection and Repatriation Act protected resources or anthropological evidence. However, general condition 21 for the *Discovery of Previously Unknown Remains and Artifacts* and general condition 20 for *Historic properties* adequately address the protection of Tribal Resources. Additionally, the Tulsa District procedures for PCN NWPs deal with the Native American Graves Protection and Repatriation Act, as appropriate.

The Tulsa District standard processing procedure for pre-construction notification ensures the NWP proposals are reviewed by the Tulsa District staff archeologist, prior to issuance. Upon determining that a NWP proposal would impact protected resources or anthropological evidence, the project is further coordinated until cleared by the SHPO/THPO. This ensures compliance with the Appendix C, the Interim Guidance, and NHPA Section 106 Guidance.

In the Albuquerque District, one tribe is located within its Texas boundaries. The Ysleta del Sur Pueblo of El Paso Texas will be consulted whenever an activity is located adjacent to or on tribal property.

If the NWP action may affect Tribal lands, the Corps will follow tribal consultation procedures as outlined in the 2004 revised ACHP, 36 CFR Part 800 procedures; Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" dated 6 November 2000; and through Corps Policy Guidance Letter No. 57, "Indian Sovereignty and Government-to-Government Relations with Indian Tribes", dated 18 February 1998.

7.0 Essential Fish Habitat

The Galveston District consulted with the NMFS under the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Management and Conservation Act. No response was received.

8.0 Regional Supplement to the Analyses in the National Decision Document

8.1 Public Interest Review Factors (33 CFR 320.4(a)(1))

In addition to the discussion in the national decision document for this NWP, Albuquerque, Galveston, Fort Worth and Tulsa Districts have considered the local impacts expected to result from the activities authorized by this NWP, including the reasonably foreseeable cumulative effects of those activities.

- (a) Conservation: Same as discussed in the national decision document.
- (b) Economics: Same as discussed in the national decision document.
- (c) Aesthetics: Same as discussed in the national decision document.
- (d) General environmental concerns: Same as discussed in the national decision document.
- (e) Wetlands: Same as discussed in the national decision document.

- (f) Historic properties: Same as discussed in the national decision document.
- (g) Fish and wildlife values: Same as discussed in the national decision document.
- (h) Flood hazards: Same as discussed in the national decision document.
- (i) Floodplain values: Same as discussed in the national decision document.
- (j) Land use: Same as discussed in the national decision document.
- (k) Navigation: Same as discussed in the national decision document.
- (l) Shore erosion and accretion: Same as discussed in the national decision document.
- (m) Recreation: Same as discussed in the national decision document.
- (n) Water supply and conservation: Same as discussed in the national decision document.
- (o) Water quality: Same as discussed in the national decision document.
- (p) Energy needs: Same as discussed in the national decision document.
- (q) Safety: Same as discussed in the national decision document.
- (r) Food and fiber production: Same as discussed in the national decision document.
- (s) Mineral needs: Same as discussed in the national decision document.
- (t) Considerations of property ownership: Same as discussed in the national decision document.

8.2 Section 404(b)(1) Guidelines Impact Analysis (Subparts C-F)

- (a) Substrate: Same as discussed in the national decision document.
- (b) Suspended particulates/turbidity: Same as discussed in the national decision document.
- (c) Water: Same as discussed in the national decision document.
- (d) Current patterns and water circulation: Same as discussed in the national decision document.
- (e) Normal water level fluctuations: Same as discussed in the national decision document.

- (f) Salinity gradients: Same as discussed in the national decision document.
- (g) Threatened and endangered species: Same as discussed in the national decision document.
- (h) Fish, crustaceans, molluscs, and other aquatic organisms in the food web: Same as discussed in the national decision document.
- (i) Other wildlife: Same as discussed in the national decision document.
- (j) Special aquatic sites: The potential impacts to specific special aquatic sites are discussed below:
- (1) Sanctuaries and refuges: Same as discussed in the national decision document.
 - (2) Wetlands: Same as discussed in the national decision document.
 - (3) Mud flats: Same as discussed in the national decision document.
 - (4) Vegetated shallows: Same as discussed in the national decision document.
 - (5) Coral reefs: Same as discussed in the national decision document.
 - (6) Riffle and pool complexes: Same as discussed in the national decision document.
- (k) Municipal and private water supplies: Same as discussed in the national decision document.
- (l) Recreational and commercial fisheries: Same as discussed in the national decision document.
- (m) Water-related recreation: Same as discussed in the national decision document.
- (n) Aesthetics: Same as discussed in the national decision document.
- (o) Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar areas: Same as discussed in the national decision document.

8.3 Regional Cumulative Effects Analysis

This section discusses the anticipated cumulative effects of the use of NWP 21 in Texas during the period this NWP is in effect.

The cumulative effects of this NWP are dependent upon the number of times the NWP is used in the state and the quantity and quality of waters of the United States impacted as a result of the activities authorized by this NWP (see 40 CFR 230.7(b)).

Based on reported use of this NWP during the period of March 19, 2012, to June 10, 2016, the Albuquerque, Galveston, Fort Worth and Tulsa Districts estimate that this NWP will be used approximately 16 times per year in Texas, resulting in impacts to approximately 188 acres of waters of the United States. The reported use includes pre-construction notifications submitted to the Albuquerque, Galveston, Fort Worth and Tulsa Districts, as required by the terms and conditions of the NWP as well as regional conditions imposed by division engineers. The reported use also includes voluntary notifications submitted to the Albuquerque, Galveston, Fort Worth and Tulsa Districts where the applicants request written verification in cases when pre-construction notification is not required. The reported use does not include activities that do not require pre-construction notification and were not voluntarily reported to the Albuquerque, Galveston, Fort Worth and Tulsa Districts.

Based on reported use of this NWP during that time period, the Albuquerque, Galveston, Fort Worth and Tulsa Districts estimated that 95 percent of the NWP 21 verifications will require compensatory mitigation to offset the authorized impacts to waters of the United States and ensure that the authorized activities result in only minimal adverse environmental effects. The verified activities that do not require compensatory mitigation will have been determined by Albuquerque, Galveston, Fort Worth and Tulsa district engineers to result in no more than minimal individual and cumulative adverse environmental effects without compensatory mitigation. During 2017-2022, the Albuquerque, Galveston, Fort Worth and Tulsa Districts expect little change to the percentage of NWP 21 verifications requiring compensatory mitigation, because there have been no substantial changes in the mitigation general condition or the NWP regulations for determining when compensatory mitigation is to be required for NWP activities. The Albuquerque, Galveston, Fort Worth and Tulsa Districts estimates that approximately 105 acres of compensatory mitigation will be required each year to offset authorized impacts. The demand for these types of activities could increase or decrease over the five-year duration of this NWP.

Based on these annual estimates, the Albuquerque, Galveston, Fort Worth and Tulsa Districts estimated that approximately 80 activities could be authorized over a five year period until this NWP expires, resulting in impacts to approximately 940 acres of waters of the United States. Approximately 600 acres of compensatory mitigation would be required to offset those impacts. Compensatory mitigation is the restoration (re-establishment or rehabilitation), establishment, enhancement, and/or preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved. [33 CFR 332.2]

In addition to the cumulative losses associated with specific NWPs, we are also concerned about loss associated with the entire NWP program in specific types of

waters of the U.S. We have included exclusions to certain types of rare wetlands including mangrove swamps as well as those wetlands found in dune swale complexes and the Columbia bottomlands. In addition, we have required pre-construction notification for rare wetlands resources such as pitcher plant bogs and cypress tupelo swamps as well the region of Caddo Lake designated as a “Wetland of International Importance” under the Ramsar Convention. In addition to wetlands, the cumulative effects of NWP’s on the navigable waters such as the Canadian River, Prairie Dog Town Fork of the Red River, Red River, Sabine-Neches Waterway and Gulf Intracoastal Waterway also compelled us to require pre-construction notices and/or exclusions to the NWP’s in these waters. Finally, we have included compensatory mitigation requirements when necessary to reduce the contribution of those activities to the cumulative effects on the Nation’s wetlands, streams, and other aquatic resources, by providing ecological functions to partially or fully replace some or all of the aquatic resource functions lost as a result of those activities.

9.0 Final Corps Regional Conditions for NWP 21

Based on comments and concerns submitted by state and federal agencies as well as the regulated public during both the June, 7 2016 and January 12, 2017 public notices, the Corps has revised its regional conditions for the State of Texas. The following is a list of final Corps regional conditions for NWP 21:

1. For all discharges proposed for authorization under Nationwide Permits (NWP) 3, 6, 7, 12, 14, 18, 19, 21, 23, 25, 27, 29, 39, 40, 41, 42, 43, 44, 49, 51, and 52, into the following habitat types or specific areas, the applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32, Pre-Construction Notification (PCN). The Corps of Engineers (Corps) will coordinate with the resource agencies as specified in NWP General Condition 32(d) (PCN). The habitat types or areas are:
 - a. Pitcher Plant Bogs: Wetlands typically characterized by an organic surface soil layer and include vegetation such as pitcher plants (*Sarracenia* spp.) and/or sundews (*Drosera* spp.).
 - b. Bald Cypress-Tupelo Swamps: Wetlands dominated by bald cypress (*Taxodium distichum*) and/or water tupelo (*Nyssa aquatic*).
2. For all activities proposed for authorization under any Nationwide Permit (NWP) at sites approved as compensatory mitigation sites (either permittee-responsible, mitigation bank and/or in-lieu fee) under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899, the applicant shall notify the appropriate District Engineer in accordance with the NWP General Condition 32 - Pre-Construction Notification prior to commencing the activity.
7. Channelization. Nationwide Permit (NWP) General Condition 9 for Management of Water Flows is amended to add the following: Projects that would result in permanent channelization to previously un-channelized streams require pre-construction

notification to the Albuquerque District Engineer in accordance with NWP General Condition 32 – Pre-Construction Notification.

8. Dredge and Fill Activities in Intermittent and Perennial Streams, and Special Aquatic Sites: For all activities subject to regulation under the Clean Water Act Section 404 in intermittent and perennial streams, and special aquatic sites (including wetlands, riffle and pool complexes, and sanctuaries and refuges), pre-construction notification (PCN) to the Albuquerque District Engineer is required in accordance with Nationwide Permit General Condition 32 - PCN.

9. Springs. For all discharges of dredged or fill material within 100 feet of the point of groundwater discharge of natural springs located in an aquatic resource, a pre-construction notification (PCN) is required to the Albuquerque District Engineer in accordance with Nationwide Permit General Condition 32 - PCN. A natural spring is defined as any location where ground water emanates from a point in the ground and has a defined surface water connection to another waters of the United States. For purposes of this regional condition, springs do not include seeps or other groundwater discharges which lack a defined surface water connection.

10. Suitable Fill. Use of broken concrete as fill or bank stabilization material is prohibited unless the applicant demonstrates that its use is the only practicable material (with respect to cost, existing technology, and logistics). Any applicant who wishes to use broken concrete as bank stabilization must provide notification to the Albuquerque District Engineer in accordance with Nationwide Permit General Condition 32 - Pre-Construction Notification along with justification for such use. Use of broken concrete with rebar or used tires (loose or formed into bales) is prohibited in all waters of the United States.

11. For all discharges proposed for authorization under all Nationwide Permits (NWP) into the area of Caddo Lake within Texas that is designated as a “Wetland of International Importance” under the Ramsar Convention, the applicant shall notify the Fort Worth District Engineer in accordance with the NWP General Condition 32 – Pre-Construction Notification (PCN). The Fort Worth District will coordinate with the resource agencies as specified in NWP General Condition 32(d) - PCN.

12. Compensatory mitigation is generally required for losses of waters of the United States that exceed 1/10 acre and/or for all losses to streams that exceed 300 linear feet. Loss is defined in Section F of the Nationwide Permits (NWP). Mitigation thresholds are cumulative irrespective of aquatic resource type at each single and complete crossing. Compensatory mitigation requirements will be determined in accordance with the appropriate district standard operating procedures and processes. The applicant shall notify the Fort Worth District Engineer in accordance with the NWP General Condition 32 - Pre-Construction Notification prior to commencing the activity.

15. No Nationwide Permits (NWP), except NWP 3, shall be used to authorize discharges into the habitat types or specific areas listed in paragraphs a through c, below. The applicant shall notify the Galveston District Engineer in accordance with the NWP General Condition 32 - Pre-Construction Notification prior to commencing the activity under NWP 3.

a. Mangrove Marshes. For the purpose of this regional condition, Mangrove marshes are those waters of the United States that are dominated by mangroves (*Avicennia* spp., *Laguncularia* spp., *Conocarpus* spp., and *Rhizophora* spp.).

b. Coastal Dune Swales. For the purpose of this regional condition, coastal dune swales are wetlands and/or other waters of the United States located within the backshore and dune areas in the coastal zone of Texas. They are formed as depressions within and among multiple beach ridge barriers, dune complexes, or dune areas adjacent to beaches fronting tidal waters of the United States.

c. Columbia Bottomlands. For the purpose of this regional condition, Columbia bottomlands are defined as waters of the United States that are dominated by bottomland hardwoods in the Lower Brazos and San Bernard River basins identified in the 1997 Memorandum of Agreement between the U.S.

Environmental Protection Agency, U.S. Fish and Wildlife Service, Natural Resource Conservation Service, and Texas Parks and Wildlife Department for bottomland hardwoods in Brazoria County. (For further information, see <http://www.swg.usace.army.mil/Business-With-Us/Regulatory/Permits/Nationwide-General-Permits/>)

16. A Compensatory Mitigation Plan is required for all special aquatic site losses, as defined in Section F of the Nationwide Permits (NWP), that exceed 1/10 acre and/or for all losses to streams that exceed 200 linear feet. Compensatory mitigation requirements will be determined in accordance with the appropriate district standard operating procedures and processes. The applicant shall notify the Galveston District Engineer in accordance with the NWP General Condition 32 - Pre-Construction Notification prior to commencing the activity.

23. No Nationwide Permits (NWP), except NWPs 3, 16, 20, 22, 37, shall be used to authorize discharges, structures, and/or fill within the standard setback and high hazard zones of the Sabine-Neches Waterway as defined in the Standard Operating Procedure - Permit Setbacks along the Sabine-Neches Waterway. The applicant shall notify the Galveston District Engineer in accordance with NWP General Condition 32 - Pre-Construction Notification for all discharge, structures and/or work in medium hazard zones and all NWP 3 applications within the standard setback and high hazard zones of the Sabine-Neches Waterway.

28. For all activities proposed under Nationwide Permits (NWP) 21, 29, 39, 40, 42, 43, 44, and 50 that result in greater than 300 feet of loss in intermittent and/or ephemeral streams, as defined in Section F of the NWPs, require evaluation under an Individual Permit.

29. Upland Disposal: Except where authorized by Nationwide Permit 16, material disposed of in uplands shall be placed in a location and manner that prevents discharge of the material and/or return water into waters or wetlands unless otherwise authorized by the Tulsa District Engineer.

10.0 Water Quality Certification and Coastal Zone Management Act consistency determinations

TCEQ, by letter dated March 6, 2017, conditionally certified NWP 12 stating that Soil Erosion and Sediment Controls under General Condition 12 are required. Post-construction TSS controls under General Condition 25 are required. NWP 12 is not authorized for use in coastal dune swales, mangrove marshes, and Columbia bottomlands in Texas. (Encl 1)

The TCEQ has reviewed the Notice of Reissuance of Nationwide Permits for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the CMP regulations (Title 31, Texas Administrative Code (TAC), Chapter (§)505.30) and has determined that the action is consistent with the applicable CMP goals and policies.

This certification was reviewed for consistency with the CMP's development in critical areas policy (31 TAC §501.23) and dredging and dredged material disposal and placement policy (31 TAC §501.25). This certification complies with the CMP goals (31 TAC §501.12(1, 2, 3, 5)) applicable to these policies.

The EPA, by letter dated March 2, 2017, stated they hereby certify the use of the 2017 NWPs for use on the Ysleta del Sur Pueblo tribal lands. For the remaining affected tribes within the State of Texas EPA did not certify the use of the 2017 NWPs, rather, in accordance with Corps regulations at 33 CFR 330.4(c), anyone wanting to perform an activity subject to the NWPs on tribal land is required to obtain an activity specific water quality certification or waiver from EPA before proceeding under a NWP. (Encl 2)

The TXGLO, by letter dated March 7, 2017, stated that pursuant to Title 31 Natural Resources and Conservation, Part 16 Coastal Coordination Council rules, Section 506.30, the NWP Reissuance has been reviewed for consistency with the Texas Coastal Management Program (CMP). The TXGLO has determined that there are no significant unresolved consistency issues with respect to the 2017 NWPs. Therefore, this project is consistent with the CMP goals and policies. (Encl 3)

Under Texas Natural Resource Code, Title 3, and the Texas Water Code, Chapter 26, the Texas Railroad Commission (TXRCC) has the responsibility for the prevention of pollution that might result from activities associated with the exploration, development,

and production of oil, gas, or geothermal resources of the State. The 60-day period for WQC ended on March 6, 2017 and no response was received from the TXRRC. Therefore, WQC is considered waived for these activities.

11.0 Measures to Ensure No More than Minimal Adverse Environmental Effects

The terms and conditions of the NWP, including the pre-construction notification (PCN) requirements and the regional conditions listed in Section 9.0 of this document, will ensure that this NWP authorizes only activities with no more than minimal individual and cumulative adverse environmental effects. High value waters will be protected by the restrictions in general condition 22, the regional conditions discussed in this document, and the PCN requirements of the NWP. Through the PCNs, the Albuquerque, Galveston, Fort Worth and Tulsa Districts will review certain activities on a case-by-case basis to ensure that those activities result in no more than minimal adverse environmental effects, individually and cumulatively. Through the PCN review process, the District Engineer can add special conditions to a NWP authorization to ensure that the NWP activity results in no more than minimal adverse environmental effects, individually and cumulatively. During the PCN process, the District Engineer may also exercise discretionary authority and require an individual permit for a proposed activity that will result in more than minimal individual and cumulative adverse environmental effects.

For those activities where compensatory mitigation is required to offset authorized losses of jurisdictional waters and wetlands so that the net adverse environmental effects are no more than minimal, the Albuquerque, Galveston, Fort Worth and Tulsa Districts have developed standard operating procedures and practices for compensatory mitigation. The standards ensure that the activities authorized by this NWP will result in no more than minimal individual and cumulative adverse environmental effects in the region.

If, at a later time, there is clear, unequivocal evidence that the use of this NWP would result in more than minimal individual and cumulative adverse environmental effects, the modification, suspension, or revocation procedures at 33 CFR 330.4(e) or 33 CFR 330.5 will be used.

12.0 Final Determination

Based on the considerations discussed above, and in accordance with 33 CFR 330.4(e)(1) and 330.5(c), I have determined that this NWP, including its terms and conditions, as well as these regional conditions, will authorize only those activities that have no more than minimal individual and cumulative adverse environmental effects.

13.0 References

- Baker T.T. III et al. 2001. Leaf litter decomposition and nutrient dynamics in four southern forested floodplain communities. *Soil Sci Soc Am J* 65:1334–1347.
- Baldwin R.F. et al, 2006. The significance of hydroperiod and stand maturity for pool-breeding amphibians in forested landscapes. *Can J Zool* 84:1604–1615.
- Barrett, M. E. et al. 1995. Effects of highway construction and operation on water quality and quantity in an ephemeral stream in the Austin, Texas area." Technical Report-University Of Texas Center For Research In Water Resources.
- Battle J.M. and S.W. Golladay. 2007. How hydrology, habitat type, and litter quality affect leaf breakdown in wetlands of the Gulf Coastal Plain of Georgia. *Wetlands* 27:251–260.
- Brodman R.J. et al. 2003. Multivariate analyses of the influences of water chemistry and habitat parameters on the abundances of pond-breeding amphibians. *J Freshw Ecol* 18:425–436.
- Brooks R.T. 2000. Annual and seasonal variation and the effects of hydroperiod on benthic macroinvertebrates of seasonal forest ("vernal") ponds in central Massachusetts, USA. *Wetlands* 20: 707–715.
- Dunton, K.H et al. 2003. Concluding Report. Effects of dredge deposits on seagrasses: an integrative model for Laguna Madre. Volume I: Executive Summary. U.S. Army Corps of Engineers, Galveston District, Galveston, Texas.
- Euliss N.H. Jr et al. 2006. North American prairie wetlands are important nonforested land-based carbon storage sites. *Sci Total Environ* 361:179–188.
- Fisher S. G. et al. 1982. Temporal succession in a desert stream following flash flooding. *Ecol. Monogr.*, 52:93-110.
- Fritz, K.M. et al. 2006. Field Operations Manual for Assessing the Hydrologic Permanence and Ecological Condition of Headwater Streams. EPA/600/R-06/126. U.S. Environmental Protection Agency, Office of Research and Development, Washington, D.C.
- Gomi, T., et al. 2002. Understanding processes and downstream linkages of headwater systems. *BioScience* 52(10):905-916.
- Hill, B., & T. Gardner.1987. Benthic Metabolism in a Perennial and an Intermittent Texas Prairie Stream. *The Southwestern Naturalist*, 32(3), 305-311.

Inkley M.D. et al. 2008 Effects of drying regime on microbial colonization and shredder preference in seasonal woodland wetlands. *Freshw Biol* 53:435–445

Jakob C. et al. 2003 Breeding phenology and larval distribution of amphibians in a Mediterranean pond network with unpredictable hydrology. *Hydrobiologia* 499:51–61

Kirkman L.K. et al. 2000. Depressional wetland vegetation types: a question of plant community development. *Wetlands* 20:373–385

Larimore, R. W. et al. 1959. Destruction and re- establishment of stream fish and invertebrates affected by drought. *Trans. Am. Fish. Soc.* 88:261-285.

Levick, L.. et al. 2008. The ecological and hydrological significance of ephemeral and intermittent streams in the arid and semi-arid American southwest. U.S. EPA and U.S. Department of Army/ARS Southwest Watershed Research Center, EPA1600/R-081134, ARS/233046. U.S. Environmental Protection Agency, Office of Research and Development, Washington, D.C.

Magnusson A. K. and, D.D Williams.2006. The roles of natural temporal and spatial variation versus biotic influences in shaping the physicochemical environment of intermittent ponds: a case study. *Arch Hydrobiol* 165:537–556.

Matthews, W. J. 1987. Physicochemical tolerances and selectivity of stream fishes as related to their geographic ranges and local distributions, p. 111-120. In: W. J. Matthews and D. C. Heins (eds.). *Community and evolutionary ecology of North American stream fishes*. Univ. Oklahoma Press, Norman.

Matthews, W.J. 1988. North American prairie streams as systems for ecological study. *Journal of the North American Benthological Society*. Vol. 7, No. 4, pp. 387-409.

Nadeau, T.L. and M.C. Rains. 2007. Hydrological connectivity between headwater streams and downstream waters: how science can inform policy. *Journal of the American Water Resources Association* 43(1): 118-133.

Petersen R. C. et al.. 1987. Stream management: emerging global similarities. *Ambio* 16:166.

Peterson, B.J., et al. 2001. Control of nitrogen export from watersheds by headwater streams. *Science* 292:86-90.

Resh, V. H., and G. Grodhaus. 1983. *Aquatic insects in urban environments. Urban entomology: interdisciplinary perspectives*. Praeger Publishers, New York. Pages 247-276.

Rosen, D. J., et al. 2008. Conservation strategies and vegetation characterization in the Columbia Bottomlands, an under-recognized southern floodplain forest formation. *Natural Areas Journal*, 28(1), 74-82.

Schneider D.W. 1999 Snowmelt ponds in Wisconsin: influence of hydroperiod on invertebrate community structure. In: Batzer DP et al (eds) *Invertebrates in freshwater wetlands of North America: ecology and management*. Wiley, New York.

Semlitsch R.D. et al. 1996. Structure and dynamics of an amphibian community: evidence from a 16-year study of a natural pond. In: Cody ML, Smallwood JA (eds) *Long-term studies of vertebrate communities*. Academic, San Diego, California.

Skidds D.E. and .FC. Golet. 2005 Estimating hydroperiod suitability for breeding amphibians in southern Rhode Island seasonal forest ponds. *Wetlands Ecol Manag* 13:349–366

SMITH, P. W. 1963. A study of seasonal distribution of fishes in the Kaskaskia River ditch, a highly modified stream in eastern Illinois. *Copeia*, 1963:251-259.

Wheeler, AP., et al. 2005. Impacts of new highways and subsequent landscape urbanization on stream habitat and biota. *Reviews in Fisheries Science* 13: 141 -164.

Zale, A.V., et al. 1989. The physicochemistry, flora, and fauna of intermittent prairie streams: a review of the literature. U.S. Fish and Wildlife Service Biological Report 89(5).