UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

July 7, 2017

Mr. Douglas C. Sims, Acting Director
U.S. Army Corps of Engineers
Galveston District Regulatory Office
Regional Planning and Environment Center
P.O. Box 1229
Galveston, TX 77553-1229

Dear Mr. Sims:

In accordance with Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Sabine Pass to Galveston Bay Coastal Storm Risk Management (CSRM) and Ecosystem Restoration (ER) Final Integrated Feasibility Report (IFR)/Environmental Impact Statement (EIS) prepared by the U.S. Army Corps of Engineers (USACE) and the Texas General Land Office (GLO). The IFR/EIS examine the CSRM and ER opportunities along the Texas coast within Orange, Jefferson, Chambers, Harris, Galveston, and Brazoria counties.

The EPA's provided comments to USACE on the Draft IFR/EIS on October 30, 2015, and rated the Draft IFR/EIS as EC-2 (Environmental Concerns – Insufficient Information). With the Final IFR/EIS, the USACE has addressed many of the concerns within the Draft IFR/EIS by including additional information for air, environmental justice, and wetlands and Waters of the U.S. However, EPA continues to have concerns for impacted wetland resources. Detailed comments are enclosed with this letter which clarify our concerns.

EPA appreciates the opportunity to review the Final IFR/EIS. If you have any questions or concerns, please do not hesitate to contact me, or have your staff contact Keith Hayden at hayden.keith@epa.gov or 214-665-2133.

Sincerely,

Robert Houston,
Chief, Special Projects Section

DETAILED COMMENTS

SABINE PASS TO GALVESTON BAY FINAL IFR/EIS

Clean Water Act Section 404 Guidelines

Section 6.15.2 of the Final IFR/EIS states that the alignment of the Orange 3 CSRM Plan has been carefully situated to avoid and minimize impacts to special aquatic sites and the aquatic ecosystem to the greatest extent practicable as required in the CWA 404(b)(1) Guidelines. While a checklist for compliance with the CWA 404(b)(1) Guidelines is included in Appendix H, there is no specific information included in the Main Report to support the conclusions of the checklist regarding compliance with the Guidelines and selection of the least environmentally damaging practicable alternative (LEDPA). Section 5.4.6.5 also contains the general statement that the TSP for each of the CSRM Plans is the environmentally preferable alternative because it is generally the lowest height of all action alternatives evaluated, resulting in a narrower footprint. Since the Orange 3 CSRM system has what the Final IFR/EIS describes as significant wetland impacts, adding specific information describing efforts to avoid and minimize impacts to aquatic resources, such as changes made to the levee alignment or size, would more clearly demonstrate compliance with the CWA 404(b)(1) Guidelines.

No Net Loss of Wetlands

Section 6.15.12 of the Final IFR/EIS states that the impacts to wetlands resulting from construction of the Orange CSRM Plan will be fully compensated by the mitigation plan so that there will be no net loss of wetlands. Due to the use of preservation of existing forested wetlands as mitigation for permanent impacts to bottomland hardwood wetlands, it appears there may in fact be a net loss of wetlands resulting from the Orange 3 CSRM Alternative. Additional mitigation that results in an increase in wetland functions would be needed to avoid a net loss of wetlands. As addressed in the following comments, the 404(b)(1) Guidelines allow wetlands to be preserved as compensatory mitigation under certain circumstances, but preservation is considered a less preferable mitigation option in comparison to restoration or other compensation that increases wetland functions, because it results in a net loss of wetlands.

Final IFR/EIS: Appendix O and Appendix P; Mitigation Plan

Per the 2008 Mitigation Rule, restoration should generally be the first option for compensatory mitigation because the likelihood of success is greater and the impacts to potentially ecologically important uplands are reduced compared to establishment, and the potential gains in terms of aquatic resource functions are greater, compared to enhancement and preservation (40 CFR 230.93(a)(2)). The mitigation plan has proposed preservation only for all compensation for forested wetland impacts resulting from the Orange 3 CSRM Alternative. The Final IFR/EIS should explain why restoration mitigation opportunities do not exist for forested wetlands.

The 2008 Mitigation Rule has requirements for the use of preservation as compensatory mitigation, described in 40 CFR 230.93(h). Specifically, mitigation sites using preservation as compensation for impacts to wetlands should be under threat of destruction or adverse modifications (40 CFR 230.93(h)(iv)). Section 8.3 of Appendix O discusses silviculture as a threat to cypress swamps and development as a threat to bottomland hardwood wetlands.

However, additional analysis about the degree of threat is necessary to demonstrate compliance with (40 CFR 230.93(h)(iv)). For instance, the degree of threat of silviculture to Mitigation Area 11, is unclear and may be relatively low, since the analysis provided in Section 8.3 of Appendix O states that an average of 4.27 percent of forested wetlands in the lower Sabine River area were disturbed by logging between 1989 and 2015. In addition, the exemption from Clean Water Act Section 404 for certain silviculture activities (40 CFR 232.2(3)(iii) and 40 CFR 232.3(c)) requires the wetlands to be part of an established silviculture operation (i.e. ongoing), so that regeneration of the forested resources after logging is necessary in order to qualify for the exemption. Therefore, not all timbering would be exempt from Clean Water Act permitting. The November 28, 1995 USACE/EPA Memorandum to the Field for Silviculture Mechanical Site Preparation Activities also clarified that best management practices for mechanical silvicultural site preparation activities recognize that certain wetlands should not be subject to unpermitted mechanical silvicultural site preparation activities, including permanently flooded, intermittently exposed, and semi-permanently flooded wetland communities such as cypress-gum swamps. More information about the potential for exempt silvicultural activities in proposed mitigation areas should be provided to support the analysis of threat of adverse modifications to these wetlands, and determine whether preservation mitigation credit is appropriate for this area.

Section 8.3 also discusses future development (e.g. filling wetlands in order to construct homes and businesses) as a threat to bottomland hardwood wetlands in Area 161. Because such impacts would require a Clean Water Act Section 404 permit and compensatory mitigation for unavoidable impacts, the degree of threat is likewise potentially lower for these wetlands. The Final IFR/EIS would be strengthened by further analysis of the threat of destruction for these wetlands, in order to determine whether preservation mitigation credit is appropriate for this area.

The mitigation plan evaluated the value of the proposed preservation of forested wetlands using the Wetland Value Assessment (WVA), based on a Future Without Project (FWOP) and Future with Project (FWP). While this type of analysis may be used to calculate the value of restoration, enhancement and creation of wetlands, USACE Headquarters has recently determined during a dispute resolution process for a proposed mitigation bank that this approach to calculating preservation value is not supported by the CWA404(b)(1) Guidelines. Rather, higher acreage-based ratios should be used when calculating preservation mitigation, when preservation is deemed an appropriate form of compensatory mitigation for an impact (40 CFR 230.93(h)(v)(2)).

According to Table 8-1 (Appendix O), Orange 3 would directly impact 44.3 acres of BH wetlands and indirectly impact 12.7 acres, for a total of 57 acres. Up to 112.4 acres of BH wetlands would be preserved in Area 161 and up to 155.7 acres of BH wetlands would be preserved in Area 11. If the maximum proposed preservation of BH wetlands were achieved, this is still only a 4.7:1 ratio. This preservation ratio appears low in comparison to preservation ratios previously used in the Galveston District Regulatory Program. To account for the use of preservation, which does not increase wetland functions, the Orange 3 Alternative should propose additional mitigation for impacts to bottomland hardwood wetlands, either increasing proposed preservation that meets the requirements of the Mitigation Rule at 40 CFR 230.93(h), or proposing additional mitigation that increases wetland functions.

Mitigation credit calculations should be based upon functional lift between pre- and post-project (actual) site conditions, based on 40 CFR 230.98(o)(3), in the Mitigation Rule, not calculated

based on a future theoretical loss in the absence of preservation. According to Appendix O, the bottomland hardwood wetlands in Area 161 have Chinese tallow infestation scattered throughout the site and visible on autumn satellite imagery. If portions of Area 161 are in need of enhancement or restoration, it should not be eligible for preservation credits, as restoration is a higher priority according to the Mitigation Rule, and as when preservation is used as compensatory mitigation, it shall be done in conjunction with aquatic resource restoration, establishment and/or enhancement to the degree practicable (40 CFR 230.93(h)(2)). Table 8-4 shows that enhancement of Area 161 through Chinese tallow control and removal would generate 6.4 AAHU. Additional information should be provided about the extent of the Chinese tallow infestation and baseline wetland conditions within Area 161, to demonstrate whether preservation or enhancement is the most appropriate type of mitigation.

"Best Buy Plan" Approach and Preservation

The "Best Buy Plan" approach, which emphasizes the cost per unit of various mitigation alternatives, favors preservation of aquatic resources over restoration or enhancement, because using the WVA in the manner proposed (evaluating potential future losses of wetland functions versus future wetland function gains), preservation is consistently the less expensive mitigation type since no active restoration of wetlands is required This approach is not in line with the national goal of achieving a no net loss of wetlands, or with the preference given to restoration in the CWA 404(b)(1) Guidelines (40 CFR 230.93(a)(2)). The Guidelines consider practicability, of which cost is a factor. However, mitigation plans that are not the least expensive plan may still be considered practicable compensatory mitigation options.

Site Protection Instrument

A perpetual site protection instrument should be required for all mitigation sites, including preservation sites (40 CFR 230.93(h)(v)). Specifically, we recommend that a conservation entity such as a certified land trust hold the Conservation Easement for any non-public mitigation lands that are acquired, as opposed to the non-federal sponsor (NFS). This is standard practice for mitigation banks and permittee-responsible mitigation projects in the Galveston District.

Temporal Losses

Proposed performance standards for forested wetlands require that acquisition of mitigation areas occur by Year 7 after the commencement of the project construction. To reduce temporal losses, acquisition of all mitigation areas should occur as soon as possible, preferably before or shortly after commencement of construction. The performance standards also propose for baseline surveys of all forested mitigation areas, and implementation of Chinese tallow control as necessary, to begin by Year 10 of the mitigation implementation period. Likewise, these activities should be conducted as soon as possible to reduce temporal losses.

The document states up to 5 acres of forest within Mitigation Areas 11 or 161 could be sold without replacement, if sale or release is approved by the agency owner, determined to be in the public interest, and reported to USACE. This would appear to be contrary to the proposal to perpetually preserve wetlands as mitigation lands under a Conservation Easement.

Monitoring and Adaptive Management

Appendix P, Section 3.1.1.2, proposes that a minimum of 87 acres of BH forest in Area 161 and 241 acres of cypress swamp in Area 11 would be required to be maintained in perpetuity, to

achieve a minimum WVA-based mitigation ratio of 1:1. However, for BH wetlands this would achieve less than a 2:1 ratio based on acres of wetlands preserved. The acreage ratio for cypress swamp is significantly higher, at approximately 19:1, which is likely adequate if it is determined that preservation is appropriate based on the existence of threat to high quality wetlands. However, if preservation is determined to be appropriate mitigation for the Orange 3 impacts, we recommend removal of this language that only requires long-term maintenance of a portion of the wetland acreage within the proposed preservation areas. In particular, this proposed adaptive management trigger results in a preservation mitigation ratio that is too low for BH wetlands.

The proposed trigger for adaptive management through Chinese tallow control is if over 40% of existing swamp or bottomland hardwood acreage in monitored blow-down areas or gaps is infested with Chinese tallow (a majority of midstory or overstory canopy). If 40% of gaps are dominated by Chinese tallow, this represents a significant infestation that may be difficult to control. Mitigation banks in the Galveston District consistently achieve 0% Chinese tallow in the overstory and less than 1% in the understory in forested mitigation areas. This will remove the seed source for Chinese tallow and reduce its ability to colonize new gaps that may occur on the property.

Success Criterion CEM 5 proposes that in Year 8, a minimum of 90% of invasive and nuisance vegetation in the restored marsh be removed. Mitigation banks in the Galveston District typically maintain less than 5% invasive vegetation in herbaceous strata, which may better ensure that nuisance and invasive vegetation remains under control.