



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202 – 2733

March 9, 2018

Ms. Felicity Dodson
Policy Analysis Branch
Regulatory Division, CESWG-RD-P
U.S. Army Corps of Engineers
P.O. Box 1229
Galveston, Texas 77553-1229

Dear Ms. Dodson:

The U.S. Environmental Protection Agency (EPA) Region 6 has reviewed Public Notice (PN) SWG-2014-00412, dated December 22, 2017. The applicant, Texas Central Railroad, LLC, proposes to construct the Dallas to Houston High Speed Rail Project which includes two parallel rail lines, terminal stations, and related maintenance and utility facilities for transportation. The entire project site will extend between the cities of Dallas and Houston. The project activities in the referenced PN are located in portions of Waller County and Harris County, Texas.

The following comments are being provided for use in reaching a decision relative to compliance with the EPA's *404(b)(1) Guidelines for the Specification of Disposal Sites for Dredged or Fill Material* (Guidelines) (40 CFR Part 230):

Avoidance and Minimization of Impacts to Waters of the United States (U.S.)

The PN includes a summary table of proposed unavoidable temporary and unavoidable permanent impacts to waters of the U.S. by the construction of the applicant's preferred alignment in Waller and Harris Counties. Those impacts include approximately 18,439 linear feet of streams and 78.76 acres of ponds and wetlands. As noted in the PN, the Federal Railroad Administration (FRA) is preparing an Environmental Impact Statement (EIS) for the proposed project which includes the applicant's evaluation of proposed alternatives and the selection of the applicant's preferred alternative. The draft EIS project design proposes to use viaduct on approximately 60% of the Build Alternatives to avoid and minimize impacts to waters of the U.S., and it identifies a compliance measure as limiting impacts to 0.50 acres or less for each single and discrete crossing.

The EPA continues to encourage the applicant evaluate additional avoidance and minimization of direct effects through-out the project and incorporate more avoidance of impacts to surface water hydrology. Engineering design could further minimize these impacts by increasing the percent of track on viaduct or increasing the number of above-grade structures. The basis for using a 0.5 acres or less threshold has not been provided, and it is unclear whether the referenced threshold is inclusive of both wetland and stream impacts. Additionally, the EPA 404(b)(1) Guidelines do not include such a threshold. Furthermore, simply limiting impacts from crossings or other facilities under this threshold does not necessarily equate to avoiding or minimizing impacts to the greatest extent practicable.

Mitigation Plan and Mitigation Measures

The PN states that compensatory mitigation for aquatic resources will be required for single and complete crossings of waters of the U.S. that exceed 0.10 acres of wetland and/or 300 linear feet of stream. Per the PN, the applicant intends to purchase in-kind credits from an approved mitigation bank or banks, based on the impact locations and credit availability. It is unclear why mitigation is intended only for crossings and features that exceed these Corps of Engineers (COE) Nationwide Permit (NWP) thresholds given the action being considered is an individual permit. Furthermore, it should be noted that the Galveston District COE has established a NWP regional condition requiring a compensatory mitigation plan for all special aquatic site losses that exceed 0.10 acres and/or 200 linear feet of streams. The EPA continues to encourage mitigation for all unavoidable impacts to wetlands and waters of the U.S., and if any temporary fill activities are expected to be in place for an extended period of time, the EPA suggests consideration of additional mitigation for these impacts as well.

In terms of a compensatory mitigation plan, it is noted that the FRA EIS will adopt the final COE approved mitigation plan. The EPA recommends a more detailed mitigation plan be shared for review at the earliest stage possible to allow the public and commenting agencies to have a more complete understanding of the proposed mitigation for unavoidable adverse impacts. These details would include the quantity and type of credits needed for mitigation and the methodology utilized to determine the required credits needed to ensure that compensation is adequate from a functional perspective. The EPA recommends the proposed mitigation plan and mitigation sequencing follow the 2008 Final Rule on Compensatory Mitigation for Losses of Aquatic Resources.

Culvert Design and Aquatic Life Movement

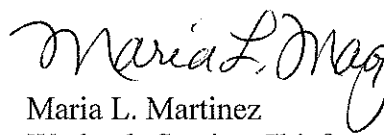
The EPA would also like to ensure that, at a minimum, the proposed structures meet the requirements of Nationwide Permit (NWP) general condition (2) for Aquatic Life Movements. This condition states that “all permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species,” (USACE, 2017, p. 40). The EPA recommends bottomless culverts where it is an appropriate design. The permit condition further states that “[i]f a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements” (USACE, 2017, p. 40). If a bottomless culvert cannot meet the project design requirements, then the EPA recommends the use of an embedded culvert.

The 2012 Federal Highway Administration (FHWA) Hydraulic Design of Highway Culverts describes an embedded culvert: “[a]n embedded culvert can be any shape, but is most often a circular, box or pipe arch that has been buried into the ground typically 20-40% of its height” (p. 1.10). These culverts are typically larger than requirements to meet hydraulic conveyance and flood capacity design standards in order to benefit aquatic life movements. The FHWA further states: “[w]hile the culvert will cost more initially, it has the potential for reducing maintenance costs over the life of the culvert installation. The FHWA procedure emphasizes the use of oversized, embedded culverts that provide a natural invert, but also allows some measure of grade control by the culvert invert” (2012, p. 1.12). The EPA recommends following the design guidelines presented by the FHWA for aquatic organism passage.

The EPA would like clear documentation as to what type of structure will be used and how it will be designed to provide for aquatic life movement. If policy restricts the use of a particular structure or design. The EPA would like clear documentation of the language in policy, and what additional measures can be taken to meet the required permit conditions.

In summary, the EPA recommends the Corps of Engineers work with the applicant to augment the information provided in regard to an alternatives evaluation, the avoidance of impacts, and a proposed mitigation. Thank you for the opportunity to review and comment on this PN, and for your consideration of these recommendations. If you have any questions on these comments, please contact Paul Kaspar of my staff, at kaspar.paul@epa.gov or 214-665-7459.

Sincerely,

A handwritten signature in black ink that reads "Maria L. Martinez". The signature is written in a cursive, flowing style.

Maria L. Martinez
Wetlands Section Chief

cc: U.S. Fish and Wildlife Service, Clear Lake, TX
Texas Commission on Environmental Quality, Austin, TX
Texas Parks and Wildlife Department, Dickinson, TX

