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

September 21, 2012

Gregory S. Punske, P.E.
Federal Highway Administration
Texas Division
300 East 8th St., Room 826
Austin, TX 78701

Dear Mr. Punske,

In accordance with our responsibilities under 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, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Draft Environmental Impact Statement (DEIS) prepared by the Federal Highway Administration (FHWA). FHWA and the Texas Department of Transportation (TxDOT) are proposing to construct a new location highway facility, approximately 38.2 miles long from US 59 (N) to IH 10 (E), Brazoria and Galveston Counties, Texas.

EPA rates the DEIS as **EC-2**" i.e., EPA has "Environmental Concerns and Requests Additional Information" in the Final EIS. We have enclosed detailed comments that provide recommendations for further clarification and additional discussion in the FEIS. The EPA's Rating System Criteria can be found here: http://www.epa.gov/oecaerth/nepa/comments/ratings.html. Responses to comments should be placed in a dedicated section of the FEIS and should include the specific location where the revision, if any, was made. If no revision was made, a clear explanation should be included.

EPA appreciates the opportunity to review the DEIS. Our classification will be published on the EPA website, www.epa.gov, according to our responsibility under Section 309 of the CAA to inform the public of our views on the proposed Federal action. Please send our office one copy of the FEIS and an internet link. Beginning October 1, 2012, you may only file your EIS using our *e-NEPA Electronic Filing* at http://www.epa.gov/compliance/nepa/submiteis/index.html. If you have any questions or concerns, please contact John MacFarlane of my staff at macfarlane.john@epa.gov or 214-665-7491 for assistance.

Sincerely,

Debra A. Griffin
Associate Director
Compliance Assurance and
Enforcement Division

Enclosure

DETAILED COMMENTS ON THE
FEDERAL HIGHWAY ADMINISTRATION
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE
TX-99/GRAND PARKWAY IMPROVEMENT PROJECT, SEGMENT B
BRAZORIA AND GALVESTON COUNTIES, TX

BACKGROUND: The Grand Parkway (State Highway 99) Segment B is part of a planned 180+ mile circumferential loop around the greater Houston metropolitan area. The Grand Parkway is divided into eleven segments, each in various stages of development. The first segment (Segment D) began construction in 1989, while the last segment (Segment B) is scheduled to begin construction in 2017. The Federal Highway Administration (FHWA) is proposing to construct this new location highway facility, approximately 28.2 miles long, from SH 288 to Interstate Highway (IH) 45 South through Brazoria and Galveston Counties, Texas.

The following comments are offered for your agency's consideration in completing the Final EIS (FEIS):

DETAILED COMMENTS

2.0 ALTERNATIVES ANALYSIS

2.3 Selection of Recommended Alternative, page 2-10

According to 40 CFR 1502.14[1], the Alternatives section "should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public."

Recommendation:

- The FEIS should include an alternatives screening analysis, including a comparison of alternatives. Table 4-26 and the alternative narratives in Section 4.24 should be included in this section.

- Table 2-1 somewhat serves as an alternatives screening analysis, but should be expanded upon. Within Table 2-1, we recommend an explanation of the heading "Community Bisector (No. Affected)."

[1] http://ceq.hss.doe.gov/NEPA/regs/ceq/1502.htm

3.0 AFFECTED ENVIRONMENT

3.3.2.2 Neighborhoods and Community Cohesion, page 3-14

Exhibit 2-5 mentioned on page 3-14 would better identify neighborhoods if the boundaries are well-delineated.

3.3.3.4 Cemeteries, page 3-17

This section states that the Confederate Cemetery is "within 30 to 50 feet of the SH 35 frontage roads..." The FEIS should describe the distance of the cemetery from the proposed ROW for the Central, Central-South, South-New, and Southern 2 alignments.

3.6.1 Criteria Pollutants, page 3-27

This section accurately describes the applicability of transportation conformity to this project, due to its location within the Houston/Galveston/Brazoria 1997 8-hr Ozone National Ambient Air Quality Standard (NAAQS) "severe" nonattainment area. We concur that the project as proposed is consistent with its scope/description in the area's currently-conforming Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP), and that the project must be consistent with a currently conforming MTP and TIP before FHWA and TxDOT take final action on environmental documentation for this project.

This section states that one of the closest monitoring stations to the proposed project area is the Clinton Drive monitor, CAMS C403. Although the Houston/Galveston/ Brazoria area is currently in attainment of the $PM_{2.5}$ fine particulate matter NAAQS, it should be noted that the Clinton Drive monitor is a sensitive monitor for this criteria pollutant, as exceedances of the $PM_{2.5}$ NAAQS have occurred at this site.

Greenhouse Gas (GHG) Emissions and Climate Change

By statutes, Executive Orders, and agency policies, the Federal government is committed to the goals of energy conservation, reducing energy use, and eliminating or reducing greenhouse gas (GHG) emissions. For guidance, please see CEQ's "Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions[2]" dated February 18, 2010.

Recommendation:

- Due to the proposed project's long-term utility and location in ozone "severe" non-attainment counties, the FEIS should identify the project's potential contribution to GHG emissions and discuss the potential impacts of climate change on the proposed project.

[2] http://ceq.hss.doe.gov/current_developments/new_ceq_nepa_guidance.html

3.9.1 Navigable Waters of the United States (U.S.), page 3-42

The DEIS states that no navigable waterways (i.e. waters that are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce) occur within the proposed study area. Please note that in reference to Sections 9 and 10 of the Rivers and Harbors Act other Traditional Navigable Waters (TNWs) may be present with the study area that may be impacted. Tidal portions of designated stream segments may be included in the study area such as Dickinson Bayou Tidal Segment 1103. Under CFR 33 Part 328.3 Definitions, (a)(1) waters include all waters which are subject to the ebb and flow of the tide. Further, under the December 02, 2008, revised Rapanos guidance[3], TNWs include all (a)(1) waters. Additionally, under the Rapanos Guidance, the USACE or the EPA may determine that a waterbody such as Dickinson or Chocolate Bayou for example are TNWs under Section 404 of the Clean Water Act.

Recommendation:

- The FEIS should provide verified field wetland delineations using a combination of the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Atlantic and Gulf Coastal Plain Regional Supplement (Version 2.0).

- Project team should verify the extent of Traditional Navigable Waters in the study area.

3.9.3 Wetlands, page 3-42

The DEIS based wetland identification on National Wetland Inventory (NWI) maps. We believe that wetlands impacts are generally undervalued by utilizing NWI data which is from the analysis of high altitude imagery and not detailed on-the-ground inspections.

Recommendation:

- Verified field wetland delineations should be provided using a combination of the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Atlantic and Gulf Coastal Plain Regional Supplement (Version 2.0).

- If access to private property hinders wetland delineations, a Geographic Information System (GIS) should be utilized to better identify wetlands. Natural Resources Conservation Service soil data and color infrared photography could be utilized for the GIS analysis. However, as mentioned above, verified wetland delineations are preferred.

4.0 ENVIRONMENTAL CONSEQUENCES

4.2.3 Farmlands, page 4-3

All Alternative Alignments would impact agricultural lands. Converting productive agricultural lands to transportation uses not only directly converts that land from arable land to

[3] http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm

impervious surfaces, but reduces the amount of food and fiber produced in this region. By reducing crops available for sale, farm revenues may be adversely affected. Farmers would incur access issues and longer travel times when traveling to fields that are bisected by the proposed project.

Recommendation:

- The FEIS should fully disclose the local and regional economic impacts of converting an estimated 770 acres of farmland to transportation uses, including additional conversion by induced development. The discussion of impacts should include the analysis of farmland access and farm equipment travel time.

4.3.5 Environmental Justice, page 4-21

Environmental justice and tribal communities were addressed and taken into consideration and, at this time, the EIS does not appear to show any disproportionate impacts on these communities.

Recommendation:

The project team should continue to strive for open communication and dialogue during this comment period and until the Record of Decision is signed. Any project updates should be provided to all residents in the project area and especially those directly affected by roadway construction. Residents should be given ample opportunity to discuss their concerns or hardships during the planning and construction phases of this project and the additional segments of the Grand Parkway. We recommend that the project team always be cognizant of any language barriers and be attentive to cultural differences.

4.8 Water Quality, page 4-57

All Reasonable Alternatives cross streams and/or wetlands that recharge the underlying aquifer, while one alternative may destroy two wells for public or private ground water systems. The aquifer underlying the study area is not a Sole Source Aquifer; however, all means of preventing spills and runoff during and after construction should be pursued to protect the aquifer.

Recommendation:

- EPA recommends implementing a Source Water Protection Plan for all public water systems and using best management practices for spills and runoff during and after construction and focusing on bridges over water bodies that recharge ground water.

- According to this section, three streams listed on the Texas Commission on Environmental Quality's Texas Water Quality Inventory and 303(d) list would be affected by the project. The FEIS should fully characterize and analyze the impacts to water quality of those waterways, and their receiving waterways, and state whether or not

it will exacerbate the impairment status. If the proposed project has the potential to exacerbate the impairment, mitigation measures must be implemented.

4.9.3 Wetlands, page 4-64

This section states "However, the USACE is the agency to make the final determination as to the jurisdictional status of wetlands." Please note in the Memorandum of Agreement[4] (MOA) between EPA and the USACE dated January 19, 1989, the Administrator of EPA has the ultimate authority under the Clean Water Act to determine the geographic jurisdictional scope of Section 404 waters of the United States. Following the Rapanos guidance, EPA will review any USACE draft jurisdictional determinations (JD) for isolated non jurisdictional wetlands or significant nexus determinations.

Recommendation:

- To determine the true extent of wetlands in the project area, verified field wetland delineations and a JD from the USACE, Galveston District is required. When an approved wetland delineation and JD is obtained, a preferred alternative can be refined.

- Draft mitigation scenarios should be developed for the unavoidable adverse impacts to waters of the U.S., including wetlands.

- Conduct a Section 404(b)(1)[5] alternatives analysis for this project to determine the least environmentally damaging practical alternative.

- Use approved wetland functional assessment models to determine the wetland types that would be impacted and the extent of functional loss and appropriate compensatory mitigation that would be required to fully restore the unavoidable adverse impacts to waters of the U.S., including special aquatic sites as identified in 40 CFR Part 230 Section 404(b)(1).

Table 4-23 Potential Wetland Impacts Within The Alternative Alignments, page 4-65

It appears based on NWI mapping of wetland impacts that the northern alignment would have no impact to forested wetlands and potential impact to 24 acres of non-forested wetlands, which is less than any other alternative with the exception of Southern 2. However, Southern 2 would potentially impact three acres of forested wetlands. Mature forested wetlands in the West Galveston Bay watershed are few in extent and of great importance to the watershed and wildlife habitat. These forested wetlands should be avoided to the greatest extent practicable.

In contrast, the preferred South-New alignment would impact 10 acres of forested wetlands and 35 acres of non-forested wetlands. Based on NWI data, which is subject to field

[4] http://water.epa.gov/lawsregs/guidance/wetlands/404f.cfm
[5] Federal Guidelines promulgated at 40 CFR Part 230 under Section 404(b)(1) of the Clean Water Act

verification of wetlands, it appears that the northern alternative alignment is environmentally preferable to the recommended preferred alternative.

4.10 Permits, page 4-68

This section discusses a preference hierarchy for mitigation options. It states that the most preferred option is mitigation bank credits with the least preferred option being permittee-responsible mitigation. As this project is located in the West Galveston Bay watershed, HUC 12040204, EPA does not support mitigating any impacts from this project in the pending Gulf Coastal Plains Wetland Mitigation Bank in Chambers County because the mitigation would be out of kind and out of the watershed.

Recommendation:

- Develop a draft mitigation plan (and make it available to EPA prior to the release of the FEIS). A draft plan should strive for avoidance and minimization first and should outline appropriate compensation and enhancement measures for unavoidable impacts to waters of the U.S., including wetlands. A draft plan should include the evaluation of the least environmentally damaging practicable alternative, according to the Section 404(b)(1) guidelines and should outline a monitoring plan. Please note that any compensatory mitigation plan must fully comply with the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule[6] (Mitigation Rule) effective June 9, 2008.

4.21 Construction Impacts (Air Quality), page 4-92

This section indicates that because of possible short-term, localized degradation of air quality through dust and exhaust gases associated with construction equipment "Measures to control dust would be considered and incorporated into the final proposed SH 99 Segment B design and construction specifications."

Recommendation:

- In order to reduce potential air quality impacts associated with construction activities, the agencies responsible for the project should also include a Construction Emissions Mitigation Plan and adopt this plan in the Record of Decision. In addition to all applicable local, state, or federal requirements, EPA recommends that the following mitigation measures be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of NOx, CO, PM, SO_2, and other pollutants from construction-related activities:

  Fugitive Dust Source Controls:

  1. Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate at

[6] http://water.epa.gov/lawsregs/guidance/wetlands/wetlandsmitigation_index.cfm

active and inactive sites during workdays, weekends, holidays, and windy conditions;
2. Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions; and
3. Prevent spillage when hauling material and operating non-earthmoving equipment and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

1. Plan construction scheduling to minimize vehicle trips;
2. Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections;
3. Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed;
4. If practicable, utilize new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible;
5. Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site; and
6. Consider alternative fuels and energy sources such as natural gas and electricity (plug-in or battery).

Administrative controls:

1. Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking;
2. Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips; and
3. Identify sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).

4.24 Preferred Alternative Recommendation, page 4-95

Within Table 4-26, the Indirect and Cumulative row states that there are indirect and cumulative impacts and they are equal along all seven Alternative Alignments. However, some alignments that follow existing roadways and traverse previously developed areas may have

fewer induced development impacts. It is stated so under some of the alignment explanations on pages 4-98 and 4-99.

Recommendation:

- The Indirect and Cumulative row should be alternative specific and state the degree of those indirect and cumulative impacts.

5.0 INDIRECT IMPACT ANALYSIS

A single and complete project must be identified which likely would include Project Specific Locations (PSLs) such as borrow areas used to fill jurisdictional waters of the U.S. or placement areas located in waters of the U.S. In the opinion of EPA, the permit applicants would be responsible for permitting and mitigation. In addition, criteria should be established for PSLs that would state that all PSLs must be located in previously disturbed uplands.

Recommendation:

- Coordinate with EPA and the USACE to identify environmentally sensitive sites that should be avoided for use as PSLs.

- Make a concerted effort to identify previously disturbed upland sites to be used for PSLs and analyze any impacts to the natural environment by utilizing those PSLs.