



Form Surface Water Analysis

Project Name: **State Highway (SH) 249 from Beltway 8 North to Interstate Highway 45 (I-45) North**

CSJ(s): **0720-03-131**

County(ies): **Harris**

Date Analysis Completed: **August 20, 2021**

Prepared by: **Blanton & Associates, Inc.**

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT.

I. Section 402 of the Clean Water Act

No project-specific analysis is required as part of the environmental review process under Section 402 of the Clean Water Act for the reasons provided below:

Since TPDES Construction General Permit (CGP) authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the project. The Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual require a storm water pollution prevention plan (SWP3) be included in the plans of all projects that disturb one or more acres. The Construction Contract Administration Manual requires that the appropriate CGP authorization documents (notice of intent or site notice) be completed, posted, and submitted, when required by the CGP, to TCEQ and the municipal separate storm sewer system (MS4) operator. It also requires that projects be inspected to ensure compliance with the CGP.

The PS&E Preparation Manual requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the "Required Specification Checklists" require the current version of Special Provision 506 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SWP3, and to complete the appropriate authorization documents.

For more information regarding Section 402 of the Clean Water Act, see **ENV's Water Resources Handbook**.

II. Section 404 of the Clean Water Act

Select the appropriate statement(s) below:

- This project will not involve any regulated activity in any jurisdictional waters and therefore does not require a United States Army Corps of Engineers (USACE) "dredge and fill" permit under Section 404 of the Clean Water Act.



- Some or all regulated activity in jurisdictional waters will be authorized under a non-reporting nationwide permit (i.e., no pre-construction notification required). If this statement applies, indicate which non-reporting nationwide permit(s) will be used below.

Non-reporting NWP no(s): **N/A**

- Some or all regulated activity in jurisdictional waters cannot be authorized under a non-reporting nationwide permit; therefore, a nationwide permit with pre-construction notification, individual standard permit, letter of permission, or regional general permit will be required.

For more information regarding Section 404 of the Clean Water Act, see **ENV's Water Resources Handbook**.

III. Section 14 of the Rivers and Harbors Act (33 USC 408)

No project-specific analysis is required as part of the environmental review process under Section 14 of the Rivers and Harbors Act (33 USC 408) ("Section 408") for the reasons provided below:

Any project that involves alterations to, or will temporarily or permanently occupy or use, a USACE federally authorized civil works project (e.g., sea walls, bulkheads, reservoirs, levees, wharfs, or other federal civil works projects, or associated federal land (fee simple) or easements) will require USACE authorization under Section 408 prior to construction of the project. Obtaining any required authorization under Section 408 from the USACE is generally handled by hydraulic and/or design engineers. For any project that requires authorization under both Section 404 and Section 408, the Section 404 authorization cannot be issued until the Section 408 authorization is issued.

For more information regarding Section 408, see **ENV's Water Resources Handbook**.

IV. Section 303(d) of the Clean Water Act

For a CE project, no project-specific analysis is required as part of the environmental review process under Section 303(d) of the Clean Water Act for the reasons provided below:

To date, TCEQ has not identified (through either a total maximum daily load (TMDL) or the review of projects under the TCEQ MOU) a need to implement control measures beyond those required by the construction general permit (CGP) on road construction projects. Therefore, compliance with the project's CGP, along with coordination under the TCEQ MOU for certain transportation projects, collectively meets the need to address impaired waters during the environmental review process. As required by the CGP, the project and associated activities will be implemented, operated, and maintained using best management practices to control the discharge of pollutants from the project site.

For an EA or EIS project, further analysis regarding impaired waters is required under TxDOT's MOU with TCEQ for inclusion in the body of the environmental assessment or environmental impact statement. To do this further analysis, determine whether the project is located within five linear miles (not stream miles) of, is within the watershed of, and drains to, an impaired assessment unit under Section 303(d) of the federal Clean Water Act.



For an EA or EIS project only, provide the date of the Section 303(d) list consulted: **May 12, 2020**

For an EA or EIS project only, check the appropriate box below:

- This project is not located within five linear miles (not stream miles) of, is not within the watershed of, or does not drain to, an impaired assessment unit under Section 303(d) of the federal Clean Water Act.
- This project is located within five linear miles (not stream miles) of, is within the watershed of, and drains to, an impaired assessment unit under Section 303(d) of the federal Clean Water Act.

For an EA or EIS project only, if the second box is checked, fill-in the table below for any impaired assessment units within five miles of the project and within the same watershed as the project:

Watershed	Segment name	Segment number	Assessment unit number
Greens Bayou	Halls Bayou	1006D	1006D_02
Greens Bayou	Greens Bayou Above Tidal	1016	1016_01 (FM 1960 to I-45)
White Oak Bayou	Vogel Creek	1017C	1017C_01

For more information regarding Section 303(d) of the Clean Water Act, see **ENV's Water Resources Handbook**.

V. General Bridge Act/Section 9 of the Rivers and Harbors Act

Select the appropriate statement below:

- This project will not require a permit, bridge lighting authorization, or exemption from the United States Coast Guard under Section 9 of the Rivers and Harbors Act, which outlines the requirements for approval to construct dams, dikes, bridges, or causeways in or over a navigable waterway.
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For more information regarding the General Bridge Act/Section 9 of the Rivers and Harbors Act, see **ENV's Water Resources Handbook**.

VI. Section 10 of the Rivers and Harbors Act



Select the appropriate statement(s) below:

- This project does not require authorization from the USACE under Section 10 of the Rivers and Harbors Act, which outlines the requirements for approval to construct smaller structures in a navigable waterway.

- This project does require authorization from the USACE under Section 10 of the Rivers and Harbors Act. Some or all regulated activity in a navigable waterway will be authorized under a non-reporting nationwide permit (i.e., no pre-construction notification required). If this statement applies, indicate which non-reporting nationwide permit(s) will be used below.

Non-reporting NWP no(s): **N/A**

- This project does require authorization from the USACE under Section 10 of the Rivers and Harbors Act. Some or all regulated activity in a navigable waterway cannot be authorized under a non-reporting nationwide permit; therefore, a nationwide permit with pre-construction notification, individual standard permit under Section 404/10, letter of permission, regional general permit, or individual Section 10 permit will be required.

For more information regarding Section 10 of the Rivers and Harbors Act, see **ENV's Water Resources Handbook**.

VII. Section 401 of the Clean Water Act

Select the appropriate statement below:

- This project will not require authorization under Section 404 of the federal Clean Water Act. Therefore, this project is not required to comply with TCEQ's Water Quality Certification Program, established under Section 401 of the Clean Water Act.

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If the project is required to comply with TCEQ's Water Quality Certification Program, established under Section 401 of the Clean Water Act, then select the appropriate statement below:

- This project will require use of a reporting or non-reporting NWP and comply with Section 401 of the Clean Water Act by implementing TCEQ's conditions for NWPs.

- This project will require use of an individual standard permit and comply with Section 401 of the Clean Water Act by coordinating the water quality certification with TCEQ, providing the water quality certification or waiver to the USACE as required for permit issuance, and using BMPs required by TCEQ for Tier I projects.

- This project will require use of an individual standard permit and comply with Section 401 of the Clean Water Act by coordinating the water quality certification with TCEQ,



providing the water quality certification or waiver to the USACE as required for permit issuance, and using BMPs required by TCEQ for Tier II projects.

For more information regarding Section 401 of the Clean Water Act, see **ENV's Water Resources Handbook**.

VIII. Executive Order 11990, Protection of Wetlands

Select the appropriate statement below:

- This project is not federally funded and therefore is not subject to Executive Order 11990, Protection of Wetlands.
- This project is federally funded and therefore is subject to Executive Order 11990, Protection of Wetlands, and will not involve construction in any wetlands.
- This project is federally funded and therefore is subject to Executive Order 11990, Protection of Wetlands, and will involve construction in one or more wetlands. Explanation of how the project will comply with Executive Order 11990 is provided below.

Explanation of why there is no practicable alternative to such construction:

There are no practicable alternatives to the proposed project that completely avoid wetlands identified within the project area. Avoidance of these impacts is not feasible because changes in the horizontal alignment would potentially displace additional businesses or residences and cause community impacts. The proposed detention ponds have been sited and designed to maximize use of undeveloped lands, avoid impacts to businesses or residences, and provide the needed drainage for the roadway. The alternative selected weighed various factors to avoid wetland impacts to the greatest extent practicable.

Explanation of how the project includes all practicable measures to minimize harm to wetlands:

The project footprint (roadway and detention ponds) has been minimized to that necessary to meet design and safety standards. The revised detention pond design has avoided 3.90 acres of potential wetland impacts.

For more information regarding Executive Order 11990, Protection of Wetlands, see **ENV's Water Resources Handbook**.

IX. Executive Order 11988, Floodplain Management

Select the appropriate statement below:

- This project is not federally funded and therefore is not subject to Executive Order 11988, Floodplain Management.



- This project is federally funded and therefore is subject to Executive Order 11988, Floodplain Management, and will not involve construction in the floodplain.
- This project is federally funded and therefore is subject to Executive Order 11988, Floodplain Management. However, the project will not involve a significant encroachment in the floodplain.

“Significant encroachment” means “a highway encroachment and any direct support of likely base flood-plain development that would involve one or more of the following construction-or flood-related impacts:

- (1) A significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route.
- (2) A significant risk, or
- (3) A significant adverse impact on natural and beneficial flood-plain values.” 23 CFR 650.105(q)

In the above definition, “risk” means “the consequences associated with the probability of flooding attributable to an encroachment. It shall include the potential for property loss and hazard to life during the service life of the highway.” 23 CFR 650.105(o).

- This project is federally funded and therefore is subject to Executive Order 11988, Floodplain Management, and will involve a significant encroachment in the floodplain. Explanation of how the project will comply with Executive Order 11988 is provided below.

Explanation of how the project has been designed or modified, or will be designed or modified, to minimize potential harm to or within the floodplain:¹

N/A

Reasons why the proposed action must be located in the floodplain:²

N/A

Alternatives considered and why they were not practicable (i.e., capable of being done within reasonable natural, social, or economic constraints):³

N/A

Statement indicating whether the action conforms to applicable State or local floodplain protection standards:⁴

The project will comply with the standards in the TxDOT Hydraulic Design Manual.

¹ EO 11988, Section 2.(a)(2).
² 23 CFR 650.113(a)(1).
³ 23 CFR 650.105(k), 650.113(a)(2).
⁴ 23 CFR 650.113(a)(3).



For more information regarding Executive Order 11988, Floodplain Management, see **ENV's Water Resources Handbook**.



X. Drinking Water Systems

No project-specific analysis is required as part of the environmental review process for drinking water systems for the reasons provided below:

In accordance with TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (Item 103, Disposal of Wells), any drinking water wells would need to be properly removed and disposed of during construction of the project.

XI. Resources Consulted

Indicate which resources were consulted/actions were taken to make the surface water determinations recorded in this form (DO NOT ATTACH TO THIS FORM OR UPLOAD TO ECOS ANY RESOURCES CONSULTED – JUST CHECK THE APPROPRIATE BOX(ES)):

- Aerial Photography (list dates mm/yyyy): 08/1953, 12/1978, 01/1995, 02/2004, 02/2019 (Aerial Photography reviewed on Google Earth)
- Topographic Maps Floodplain Maps
- Site Visit USFWS NWI Maps NRCS Soil Survey
- NHD TCEQ Streams/Waterbodies LIDAR
- USACE Approved JDs USACE Section 10 waters USACE 408 data
- TCEQ 303(d) Impaired Waters
- Contacted resource agency (list agency and reason): _____
- Other (list): Field visits on September 3 - 5, 2019 and July 30, 2021