



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

Categorical Exclusion
For the Miami-Dade County Water and Sewer Department (WASD)
Wastewater Treatment Plant Electrical Distribution Building Upgrades Project
Pursuant to 40 CFR §6.204(a)(1)(ii)

The U.S. Environmental Protection Agency (EPA) is planning to award a loan under the Water Infrastructure Finance and Innovation Act (WIFIA) to the Miami-Dade County Water and Sewer Department (WASD) located in Miami-Dade County, Florida. The EPA intends for this loan to fund the Wastewater Treatment Plant Electrical Distribution Building Upgrades Project (Project).

The EPA's authorization of funding for the proposed project is a federal action requiring compliance with the National Environmental Policy Act (NEPA), 42 USC §§ 4321–4370(f). According to the Council on Environmental Quality's NEPA regulations, 40 CFR § 1508.4, a federal agency may categorically exclude an action from detailed environmental review as long as the action does not individually or cumulatively have a significant effect on the human environment. An action undertaken by the EPA can qualify as a categorical exclusion if it falls under any category within 40 CFR § 6.204(a)(1)(i)–(iv) and does not exhibit any of the extraordinary circumstances listed in § 6.204(b)(1)–(10).

Project Description

The WIFIA Project consists of the design and construction of five (5) new electrical distribution buildings at three regional wastewater treatment plants (WWTPs): North District WWTP, Central District WWTP, and South District WWTP. The WWTPs are operated and managed by Miami-Dade County Water and Sewer Department (the County). The new electrical distribution buildings are part of the County's Ocean Outfall Legislation (OOL) Program and Capital Improvement Plan. Florida's OOL (as amended in 2013) requires wastewater utilities in southeast Florida (covering Miami-Dade, Broward, and Palm Beach Counties) that are currently disposing treated wastewater through ocean outfalls to reduce nutrient discharges by 2018, cease using the outfalls by 2025 (except for limited continued use to manage peak sewer flows), and reuse 60% of the wastewater flows by 2025. To comply with Florida's OOL, the County is implementing process improvements at each of the three existing wastewater treatment plants to meet projected 2035 flows and loads and to achieve ocean outfall discharge requirements. Concurrent to the expansion of the electrical capacity at each of the WWTPs, the County also plans to incorporate facility hardening requirements into the new buildings and decommission the existing electrical distribution buildings that have reached the end of their useful life.

The electrical distribution building upgrades for each plant will meet the electrical demands of the existing plant as well accommodate additional electrical demands from the OOL Program improvements, as follows:

- **North District WWTP:** The WIFIA Project includes the design and construction of two new electrical distribution buildings (EDB2 and EDB3). Both buildings will be constructed to meet WASD’s facility hardening requirements for extreme weather events. One of the proposed buildings (EDB2) will serve the additional process improvements implemented under the OOL, including filtration, disinfection, and injection. As part of the OOL Program, the plant will upgrade the effluent quality to High Level Disinfection in order to divert flows from the ocean outfall to the injection wells. The second proposed building (EDB3) will replace the plant’s existing distribution building (EDB1).
- **Central District WWTP:** The WIFIA Project includes the design and construction of two new electrical distribution buildings (EDB2 and EDB3). Both buildings will be constructed to meet WASD’s facility hardening requirements for extreme weather events and will replace the plant’s existing distribution building (EDB1) as well as accommodate process improvements implemented under the OOL Program, including oxygenation train, clarification, filtration, disinfection, and injection. Like the North District WWTP, the plant will upgrade the effluent quality to High Level Disinfection in order to divert flows from the ocean outfall to the injection wells.
- **South District WWTP:** The WIFIA Project includes the design and construction of one new electrical distribution building (EDB3). The new building (EDB3) will replace the plant’s existing distribution building (EDB1) as well as accommodate process improvements implemented under the OOL Program, including headworks, oxygenation trains, clarification, pumps, filtration, disinfection, and injection. The second electrical distribution building (EDB2) was constructed in 2013 to meet facility hardening requirements and to accommodate the additional plant capacity at the time and will operate alongside the new building (EDB3). The new building will also be constructed to meet WASD’s facility hardening requirements for extreme weather events.

Project Location

The North District WWTP is located at 2575 NE 156 Street, Miami, FL 33133; Miami-Dade County Latitude 25°55’12”, Longitude 80°9’09.3” (operations building).

The Central District WWTP is located at 3969 Rickenbacker Causeway, Virginia Key, Florida 33149; Miami-Dade County Latitude 25°44’45”, Longitude 80°09’11” (operations building).

The South District WWTP is located at 8950 SW 232 Street, Miami, Florida 33190; Miami-Dade County Latitude 25°32’57.5”, Longitude 80°20’02” (operations building).

Eligibility for Categorical Exclusion

This project is eligible for a categorical exclusion under 40 CFR § 6.204(a)(1)(ii), which requires that projects be:

“Actions relating to existing infrastructure systems (such as sewer systems; drinking water supply systems; and stormwater systems, including combined sewer overflow systems) that involve minor upgrading, or minor expansion of system capacity or rehabilitation (including

functional replacement) of the existing system and system components (such as the sewer collection network and treatment system; the system to collect, treat, store and distribute drinking water; and stormwater systems, including combined sewer overflow systems) or construction of new minor ancillary facilities adjacent to or on the same property as existing facilities.”

This project will construct new electrical distribution buildings to support WASD’s wastewater treatment operations and injection well system. This project involves the construction of ancillary facilities within the existing footprint of each WASD’s regional wastewater treatment plants (WWTPs); therefore, the EPA has determined the proposed project is eligible for a categorical exclusion under 40 CFR §6.204(a)(1)(ii).

Additionally, to qualify as a categorical exclusion, a project cannot fall within any of the exceptions listed under 40 CFR § 6.204(a)(1)(ii). Accordingly, projects cannot be eligible for this categorical exclusion if they:

“involve new or relocated discharges to surface or ground water; will likely result in the substantial increase in the volume or the loading of pollutant to the receiving water; will provide capacity to serve a population 30 percent greater than the existing population; are not supported by the state, or other regional growth plan or strategy; or directly or indirectly involve or relate to upgrading or extending infrastructure systems primarily for the purposes of future development.”

The EPA has determined that these factors do not apply to this project. The proposed project will not involve new or relocated discharges and will not be providing capacity to serve a population 30 percent greater than the existing population. The project does not increase capacity of the water and wastewater systems nor is it intended to expand infrastructure for future development; instead, the project provides for a more reliable electrical distribution system at each of the regional WWTPs that will be hardened against extreme weather events. The electrical distribution systems will support existing operations as well as additional operations that WASD is implementing to further treat its wastewater to meet the water quality requirements of municipal well injection and eliminate the regular use of ocean outfalls, which is consistent with Florida’s Ocean Outfall Legislation (OOL).

Additionally, the project does not conflict with any regional growth strategies as the project is occurring within the existing service area and infrastructure in place and no significant changes in land use or demographics are expected.

Extraordinary Circumstances

The EPA has determined that none of the following extraordinary circumstances outlined in 40 CFR § 6.204(b)(1)–(10) applies to the proposed project:

- 1. The proposed action is not known or expected to have potentially significant environmental impacts on the quality of the human environment either individually or cumulatively over time.*

This project will provide for a reliable electrical distribution system at WASD’s regional WWTPs and support additional treatment operations that are intended to reduce environmental

impacts associated with the use of existing ocean outfalls.¹

2. *The proposed action is not known or expected to have disproportionately high and adverse human health or environmental effects on any community, including minority communities, low-income communities, or federally recognized Indian tribal communities.*

The U.S. Census block group 120860001091 located near the North District WWTP project site has a minority population of 82 percent. As minority demographic data equals or exceeds 50 percent of the population in this block group, environmental justice communities are present. Block group 120860001091 has a low-income population of 56 percent, compared to 36 percent for the state of Florida and 43 percent for Miami-Dade County.² As low-income populations in portions of the project area are meaningfully greater than state and county low-income populations, environmental justice communities are present. Two additional block groups in the project area were identified but have no reported population. No tribal areas were identified at the project location.

Minor, short-term impacts on communities during construction may occur such as noise, vibration, increased construction traffic, temporary roadway detours, and erosion and runoff, which would be reduced by following construction Best Management Practices (BMPs). Each WWTP will construct new electrical distribution buildings that will incorporate facility hardening requirements to maintain facility operations during severe wet weather events.¹ Therefore, implementation of the project is not anticipated to have disproportionately high and adverse impacts on minority and low-income populations.

3. *The proposed action is not known or expected to significantly affect federally listed threatened or endangered species or their critical habitat.*

The EPA generated official species lists for each WWTP using the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) tool in September 2019. The EPA received a Consistency letter for the Central District WWTP and the South District WWTP for specified threatened and endangered species that may occur in the proposed project locations, pursuant to the IPaC determination key titled 'Clearance to Proceed with Federally-Insured Loan and Grant Project Requests.' Updated species lists were created in May 2020 for the two WWTPs, but no additional species were identified.³ Based on the IPaC determination key, it was determined that the proposed projects are unlikely to affected species of concern or critical habitats for the Central District WWTP and the South District WWTP. The determination key is for all federally insured loans, loan transfers, or grant requests.

As part of the Clean Water Act Section 404 permitting process, the borrower is coordinating with the U.S. Army Corps of Engineers (USACE) to assess and reduce potential impacts to threatened or endangered species that may occur in the vicinity of the proposed project location at the North

¹ WASD WIFIA Application – Supporting Narrative, August 2019.

² EJSCREEN Reports, May 2020.

³ ESA Consultations, May 2020.

District WWTP. As such, the EPA will rely on the results of the Endangered Species Act (ESA) consultation conducted as part of this permitting process for the North District WWTP.

4. *The proposed action is not known or expected to significantly affect national landmarks or any property with nationally significant historic, architectural, prehistoric, archaeological, or cultural value, including but not limited to, property listed on or eligible for the National Register of Historic Places.*

The South District WWTP and the Central District WWTP electrical distribution buildings will be constructed within the existing facilities. The NDWWTP electrical distribution buildings will be constructed on previously cleared and disturbed land adjacent to the existing plant. EPA used the NEPAAssist tool to look for historic properties listed on the National Register of Historic Places (NRHP) within or in proximity to the project boundaries. No historic properties were found within or in proximity to project boundaries and the EPA made a determination of no effect to historic properties.

The EPA initiated Section 106 consultation with the Florida Division of Historic Resources (DHR) on September 20, 2019. Florida DHR recommended that cultural resource assessment surveys (CRAS) be conducted for the North District WWTP (for historical and archaeological resources) and for the Central District WWTP (as a historical resource group). CRAS reports for both facilities were completed and delivered to DHR in March 2020. Florida DHR concurred with the EPA's determination of no effect on historic properties listed, or eligible for listing, on the NRHP, or otherwise of historical, architectural, or archaeological value at all three regional WWTPs on May 6, 2020.^{4,5}

5. *The proposed action is not known or expected to significantly affect environmentally important natural resource areas such as wetlands, floodplains, significant agricultural lands, aquifer recharge zones, coastal zones, barrier islands, wild and scenic rivers, and significant fish or wildlife habitat.*

The project will occur on previously disturbed areas within the existing WWTPs. There are no wetlands located at the Central District WWTP or the South District WWTP; therefore, no wetlands will be affected at these locations. The National Wetland Inventory (NWI) data indicated that wetlands were in the area of the project site at the North District WWTP and WASD is coordinating with the Florida Department of Environmental Protection (FDEP) and the USACE for Clean Water Act Section 404 permitting before construction under this project occurs at the North District WWTP.^{6,7}

⁴ EPA Section 106 letter to Florida DHR, September 2019.

⁵ DHR Section 106 Correspondence, May 2020.

⁶ WASD WIFIA Application – Supporting Narrative, August 2019.

⁷ U.S. Fish and Wildlife Services NWI data through NEPAAssist for project site, June 2018.

The project area is within the boundaries of the Biscayne Aquifer System (BAS), which is designated as a sole source aquifer (SSA). The proposed project will occur above ground and will not impact the BAS.⁸

On September 18, 2019, the EPA submitted a determination for all three WWTPs to the Florida State Clearinghouse, indicating that the WWTPs are consistent with the Florida Coastal Management Program (FCMP) and the Coastal Zone Management Act (CZMA). The Florida State Clearinghouse responded to the EPA's consistency determination stating that the project was not selected for review and that the EPA may proceed with the project.⁹

The proposed electrical buildings are located in flat topography along the coast of Florida. The climate is sub-tropical which can create large numbers of intense thunderstorms and is also subject to severe impacts from tropical storms and hurricanes. The combination of flat terrain, sub-tropical climate, and coastal boundary creates a flood risk to the project site from coastal surge, as well as rainfall. To reduce risk to structures and facilities from storm surge, WASD has evaluated new storm surge elevations at the plants using future sea level rise (SLR) projections. Consequently, new facilities will be designed with critical infrastructure located above the revised projected elevations, or with appropriate water-proofed accessories (hardening). The design elevations selected by WASD for new facilities use more recent estimates of surge coupled with SLR and extreme rainfall at each of the WWTPs, with 4.0 feet of SLR, 2.0 feet of freeboard, and 1.0 foot of safety factor. The SLR and precipitation estimates are based on high projections for 2075. Therefore, the project will be designed to conform to applicable state and local protection standards from storm surge and flooding associated with tropical storms and hurricanes.

The project is not located within any coastal barriers and no prime or unique farmlands, wild and scenic rivers or essential fish habitat occur within the project area. The Central District WWTP is located on an island that is partially designated as a coastal barrier, but the facility itself is outside of the coastal barrier boundaries and therefore, it would not conflict with the Coastal Barriers Resources Act.¹⁰

6. *The proposed action is not known or expected to cause significant adverse air quality effects.*

The project area is designated as either in attainment or unclassified for all criteria pollutants. The emissions associated with this project, which are anticipated to derive from the exhaust of mobile equipment and fugitive dust from earthmoving, are not predicted to affect the area's attainment of air quality standards. The borrower plans to purchase new backup generators at each of the distribution buildings, which are designed to meet the EPA's Tier IV diesel emission standards and will not adversely affect the air quality standards in the area.¹¹

⁸ WASD WIFIA Application – Supporting Narrative, August 2019.

⁹ Florida State Clearinghouse CZMA Correspondence, September 2019.

¹⁰ <https://www.fws.gov/ecological-services/habitat-conservation/cbra/maps/mapper.html>.

¹¹ U.S. EPA Non-attainment Area data accessed through NEPAAssist for project sites (June 2018).

7. *The proposed action is not known or expected to have a significant effect on the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population including altering the character of existing residential areas, and is not expected to be inconsistent with state or local government, or federally-recognized Indian tribe approved land use plans or federal land management plans.*

No changes to land use are anticipated due to the project. Land uses and land use patterns will not be modified by the proposed project.

8. *The proposed action is not known or expected to cause significant public controversy about a potential environmental impact of the proposed action.*

The project is not expected to cause public controversy about a potential environmental impact. The project uses proven technology and construction methodologies and occurs within the existing footprint of the regional WWTPs.

9. *The proposed action is not known or expected to be associated with providing financial assistance to a federal agency through an interagency agreement for a project that is known or expected to have potentially significant environmental impacts.*

The proposed action is to provide financial assistance to WASD and is not expected to have any significant impacts.

10. *The proposed action is not known or expected to conflict with federal, state, local government, or federally recognized Indian tribe environmental, resource-protection, or land-use laws or regulations.*

The project would comply with all applicable federal, state, local government, or tribal environmental, resource-protection, or land-use laws or regulations.

Finding

The EPA finds that the action is eligible for exclusion from detailed environmental review under 40 CFR § 6.204(a)(1)(ii) and will not involve any of the extraordinary circumstances delineated under 40 CFR § 6.204(b)(1)–(10). Consequently, the EPA will not prepare an environmental impact statement or an environmental assessment for the proposed project. The EPA may revoke this categorical exclusion if changes in the proposed action render it ineligible for exclusion or if new evidence emerges which indicates that serious local or environmental issues exist or federal, state, or local laws would be violated.

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Date