



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF WATER

**Categorical Exclusion**

**For the Miami-Dade Water and Sewer Department Ocean Outfall  
Discharge Reduction and Resiliency Enhancement 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 Water and Sewer Department (WASD) in Miami-Dade County, Florida. The EPA intends for this loan to fund the Ocean Outfall Discharge Reduction and Resiliency Enhancement 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).

Injection wells are regulated by the EPA under the authority of the Underground Injection Control (UIC) program, as provided for by Part C of the Safe Drinking Water Act. Federal Underground Injection Control regulations are located at 40 CFR parts 144-147. This program is implemented by the Florida Department of the Environment (FDEP) within the State of Florida. The construction, operation, permitting, and closure activities for injection wells are administered in accordance with Chapter 62-528, Florida Administrative Code (F.A.C.). Chapter 62-528, F.A.C., contains stringent requirements to prevent the degradation of the existing water quality of the aquifers adjacent to the injection zone. The proposed project is being permitted as part of the UIC program; construction and testing permits were issued by FDEP for wells at the South District Wastewater Treatment Plant (SDWWTP) and the Central District Wastewater Treatment Plant (CDWWTP) dated October 10, 2018 and September 24, 2018, respectively.<sup>1</sup> The UIC program does not need to comply with the formal requirements of NEPA under a functional equivalence analysis<sup>2</sup>. Although the UIC permit process for wells and components around wells has been deemed equivalent to the NEPA process, the EPA is voluntarily making this Categorical Exclusion determination for the issuance of the WIFIA loan.

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<sup>1</sup> FL DEP UIC permit for construction and testing at SDWWTP and CDWWTP (October and September 2018).

<sup>2</sup> See *Western Nebraska Resources Council v. US EPA*, 943 F.2d 867, 871-72 (8th Cir. 1991) and EPA Associate General Counsel Opinion (August 20, 1979).



## Project Description

Miami-Dade County (the County) WASD is constructing alternative disposal routes for its three regional wastewater treatment plants (WWTPs) to eliminate the normal use of two ocean outfalls by 2025 and to accommodate projected 2035 peak flow rates. The County is requesting a WIFIA loan of \$79 million to construct a total of 14 Class I municipal injection wells and six associated monitoring wells at three existing regional WWTPs, including WASD's North District WWTP (NDWWTP), CDWWTP, and SDWWTP. The County is also seeking funding through the State Revolving Fund (SRF) and on October 23, 2018, FDEP directed the County to prepare and submit the construction loan application for CDWWTP and SDWWTP. The proposed injection wells will dispose of treated and highly disinfected wastewater at a low pressure into the porous Lower Floridan aquifer Boulder Zone (a non-potable aquifer). WASD is seeking WIFIA funds to provide additional disposal capacity to serve the utility's projected flows through 2035, as follows:

- **North District WWTP** – Four new Class I injection wells and two dual-zone monitoring wells will be constructed with a planned increase in injection well capacity of 75 millions of gallons per day (MGD). The total well capacity for NDWWTP is 127 MGD, which includes four existing injection wells on site. NDWWTP is currently permitted to discharge 100 MGD annual average daily flow (AADF) through an ocean outfall.
- **Central District WWTP** – Seven new Class I injection wells and four dual-zone monitoring wells will be constructed. The total injection well capacity for CDWWTP is 143 MGD, which includes two recently constructed industrial injection wells that will be placed in service in 2019. The industrial wells are planned to receive 31 MGD or more secondary treated effluent and approximately 1 MGD high-nutrient centrate and landfill leachate. As compared to municipal injection wells, the two industrial wells do not require high-level disinfection treatment prior to wastewater disposal. CDWWTP is currently permitted to discharge 143 MGD AADF.
- **South District WWTP** – Three new Class I injection wells will be constructed with a planned increase in well capacity of 45 MGD. SDWWTP will have a total injection well capacity of 329 MGD, which includes 17 existing injection wells on site. SDWWTP does not have a permitted ocean outfall and solely relies on injection wells for wastewater disposal. Four single-zone monitoring wells will be constructed under separate contract from the well construction. WIFIA funding does not include these monitoring wells.

## Project Location

The CDWWTP is located at 3969 Rickenbacker Causeway, Virginia Key, Florida 33149; Miami-Dade County Latitude 25°44'45", Longitude 80°09'11" (operations building). The plant operates under FDEP permit number FLA024805. The first two injection wells at this facility were constructed under a separate UIC permit, 0317749-004-UC/1X.

The SDWWTP is located at 8950 SW 232 Street, Miami, Florida 33190; Miami-Dade County Latitude 25°32'57.5", Longitude 80°20'02" (operations building). The plant operates under FDEP permit number FLA042137. Existing injection wells (17) are operated under the separate UIC permit, 061787-026-042-UO/1M.

The NDWWTP 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 plant operates under FDEP permit number FL0032182. Existing injection wells (four) are operated under four separate UIC permits, 0057792-017-



UO, 0057792-018-UO, 0057792-019-UO, and 0057792-020-UO and discharge to Class G-IV groundwater.

### **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 be an expansion of WASD’s existing injection well system, which is only one component of WASD’s entire wastewater system. WASD already relies on 17 injection wells at its SDWWTP and four injection wells at the NDWWTP to dispose of treated disinfected effluent. Two new industrial injection wells have been completed at CDWWTP and are scheduled to be placed in service in 2019. As the project involves new minor ancillary facilities adjacent to or on the same property as existing facilities, 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 for this project. The project will allow for the continued disposal of treated and highly disinfected wastewater from existing and new injection wells. The proposed injections wells, as previously stated, are located at three existing WWTPs and do not involve new or relocated discharges. After the proposed injection wells are installed, the injection wells would dispose of treated and highly disinfected wastewater; therefore, this project is not likely to place a substantially higher quantity of pollutants into a receiving water.

The project will not be providing capacity to serve a population 30 percent greater than the existing population. The project does not increase capacity of the WWTPs; instead, the project changes the disposal method by eliminating the use of ocean outfalls for normal flow. The new injections wells, in combination with existing wells at the CDWWTP, NDWWTP, and SDWWTP will accommodate the total flows through injection, allowing only peak flows to discharge to existing ocean outfalls. The primary objective of the project is to eliminate the use of ocean outfalls for the discharge of normal



flows from the WWTPs, not to provide capacity to serve a population 30 percent greater than the existing population.<sup>3</sup>

Additionally, the project does not conflict with any regional growth strategies as the project is occurring within existing WWTPs and no significant changes in land use or demographics are expected. The project's purpose is not to upgrade infrastructure for future development; instead, its "primary objective" is to eliminate the use of ocean outfalls for the discharge of normal flows from the WWTPs.

### **Extraordinary Circumstances**

The EPA has determined that none of the following extraordinary circumstances outlined in 40 CFR § 6.204(b)(1)-(10) apply 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 is being developed to reduce environmental impacts associated with the use of existing ocean outfalls consistent with Florida's Ocean Outfall Legislation (OOL).<sup>4</sup>
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 block group 120860001091 located near the project site has a minority population of 77 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 60 percent, which compares to 38 percent in Florida and 45 percent for Miami-Dade County.<sup>5</sup> 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. Other block groups in the project area 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) and a Construction Noise Control Plan and a Traffic Control Plan. The injection wells associated with the proposed project will eliminate the normal use of ocean outfalls for Miami-Dade County and, therefore, will provide a significant reduction of nutrient loading to the ocean. Therefore, implementation of the project would not result in 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 (FWS) Information, Planning and Consultation (IPaC) tool. The EPA received a Consistency letter for the NDWWTP, CDWWTP and SDWWTP injection well projects for specified threatened and endangered species that may

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<sup>3</sup> WASD Technical Memo.

<sup>4</sup> WASD Technical Memo.

<sup>5</sup> EJ Screen data for project area (June 2018).



occur in the proposed project locations, pursuant to the IPaC determination key titled 'Clearance to Proceed with Federally-Insured Loan and Grant Project Requests'. Based on the IPaC determination key, the proposed projects are unlikely to affect species of concern or critical habitats.<sup>6</sup> The determination key is for all federally-insured loans, loan transfers, or grant requests.

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 EPA has reviewed the cultural resources documents provided for the project and has determined that historic properties will not be adversely affected by the described undertaking.

The Florida Division of Historic Resources (DHR) provided a letter on September 15, 2017 to the Florida State Clearinghouse related to New Class I Municipal Wells (including the CDWWTP and SDWWTP).<sup>7</sup> This letter addresses the National Historic Preservation Act (NHPA) Section 106 compliance as confirmed by DHR and the Clearinghouse Policy and Procedure's Manual, which states, "The Clearinghouse reviews selected federal assistance applications for compatibility with ... the National Historic Preservation Act." The letter states that the proposed project is unlikely to affect historic properties and provides direction on the inadvertent discovery of historic or prehistoric artifacts. The EPA reviewed the submitted material and the information available and concurs with the determination that it is unlikely to affect historic properties at the SDWWTP and CDWWTP.

Miami contacted the Florida Master Site File which stated that there were no known archeological sites or any other cultural resources found at the NDWWTP.<sup>8</sup> The EPA sent a letter to the Florida DHR on September 10, 2018 with the determination of no affect to historic resources for activities at the NDWWTP.<sup>9</sup> On October 17, 2018, the EPA received a letter from DHR concurring with the EPA's determination, and therefore Section 106 consultation has been completed.<sup>10</sup>

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 use an existing National Pollutant Discharge Elimination System (NPDES) permitted outfall. No new outfalls will be generated by the project. All injection wells are located on previously disturbed areas within the existing WWTPs. There are no wetlands located at the south and central WWTP; therefore no wetlands will be affected at

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<sup>6</sup> ESA Consultations.

<sup>7</sup> DHR SHPO letter to Florida State Clearinghouse, September 15, 2017.

<sup>8</sup> Master Site File correspondence.

<sup>9</sup> EPA /DHR letter on NDWWTP, September 10, 2018.

<sup>10</sup> DHR/EPA concurrence letter, October 17, 2018.



this location<sup>11</sup>. National Wetland Inventory (NWI) data indicated that wetlands were in the area of the project site at the NDWWTP; however further field research indicated that wetlands were not in the immediate project footprint.<sup>12</sup> WASD retained a professional that conducted the wetland delineation, and met onsite with the County and FDEP representatives that confirmed the wetland locations. The project area is within the boundaries of the Biscayne sole source aquifer. The proposed wells will discharge to the Lower Floridan Aquifer (Boulder Zone), with well depths of approximately 3,200 feet. The proposed well depths are considerably below the Biscayne Aquifer, which is shallower than 500 feet. Both the Biscayne Aquifer and the Upper Floridan Aquifer are separated from the injection zone by confining units tested during construction of the wells. Since the depths of the proposed wells are considerably below the Biscayne Aquifer, aquifers are separated by confining units, and aquifer depths were considered as part of the UIC permit, there will be no impact to the Biscayne sole source aquifer (SSA).

All the proposed disposal wells at the WWTPs will take place on previously developed land within each of the WWTPs. The project area is not included on the inventory of Prime or Unique Farmlands and will not impact or convert any existing farmlands to nonagricultural uses.

The SDWWTP and CDWWTP have received a consistency determination from the Florida DEP on September 15, 2017<sup>13</sup>, stating that FDEP has no objections and the funding award is consistent with the Florida Costal Management Program (FCMP). The EPA concurs with the determination that activities are consistent with the FCMP. On September 19, 2018, the EPA submitted a consistency determination for the NDWWTP to the Florida State Clearinghouse, indicating that the NDWWTP is consistent with the FCMP and the Coastal Zone Management Act (CZMA).<sup>14</sup> On September 24, 2018, 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.

According to the U.S. FWS Official Coastal Barrier Resources System Maps, the NDWWTP and SDWWTP are not located within any coastal barriers; however, the CDWWTP is located on an island that is partially designated, but the facility itself is outside of the coastal barrier boundaries. Therefore, the project would not conflict with the Coastal Barrier Resources Act. There are no Wild and Scenic Rivers within the project area. The project area is not located in or nearby essential fish habitat.

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.<sup>15</sup>

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<sup>11</sup> Fish and Wildlife Service's National Wetland Inventory data accessed through NEPAassist (June 2018).

<sup>12</sup> WASD responses to WIFIA, July 27, 2018.

<sup>13</sup> Florida State Clearinghouse correspondence with Florida SRF Program, September 15, 2017.

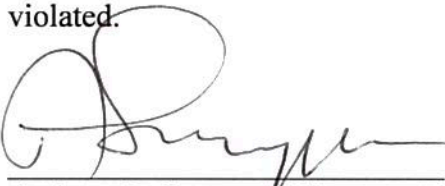
<sup>14</sup> Florida State Clearinghouse CZMA correspondence to EPA for NDWWTP, September 24, 2018.

<sup>15</sup> U.S. EPA Non-attainment Area data accessed through NEPAassist for project site (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.* The project site is situated entirely on previously disturbed land that is the existing WWTPs. No changes to land use are anticipated from the project. Land uses and land use patterns will not be modified by the proposed project.<sup>16</sup>
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. This is expansion using proven technology that is already in use at each of the WWTPs. This project is being developed to reduce environmental impacts associated with the use of existing ocean outfalls consistent with Florida's OOL.
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 and local 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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Andrew D. Sawyers, Director  
Office of Wastewater Management

12/6/18  
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Date

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<sup>16</sup> Technical memo.

