

Memorandum



Date: July 20, 2021

To: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

Agenda Item No. 14(A)(19)

From: Honorable Daniella Levine Cava
Mayor

Resolution No. R-775-21

Daniella Levine Cava

Subject: Resolution Approving the Certification of Financial Responsibility as Required by Rule 62-528.435(9) of the Florida Administrative Code for Underground Injection Wells and Related Monitoring Wells at the County's Central District Wastewater Treatment Plant

Recommendation

It is recommended that the Board of County Commissioners (Board) approve the attached resolution that approves the Certification of Financial Responsibility (attached hereto as Exhibit A) as required by Rule 62-528.435(9) of the Florida Administrative Code.

This Certification of Financial Responsibility confirms that the County has the financial resources necessary to close, plug and abandon at the Central District Wastewater Treatment Plant (CDWWTP): (a) two existing Class I underground injection wells; (b) one existing related monitoring well; (c) seven new Class I municipal underground injection wells that are currently being drilled along with four related monitoring wells that are under construction; and (d) two new Class I underground injection wells that the County is applying to the Florida Department of Environment Protection (FDEP) for permission to construct. This Certification is a requirement of FDEP's permit application process.

Scope

This item is of countywide significance because the County's wastewater system is interconnected. The injection and monitoring wells are located at the CDWWTP in District 7, which is represented by Commissioner Raquel A. Regalado.

Fiscal Impact/Funding Source

There is no fiscal impact related to Board approval of this Certification of Financial Responsibility. There will only be a fiscal impact if a well is plugged and abandoned. In the event any of the wells need to be plugged and abandoned, the estimated cost for each well is itemized in Exhibit B. The funding source for plugging and abandoning a well is sewer operations and maintenance revenue.

Track Record/Monitor

WASD's Deputy Director of the Capital Improvement Program, Hardeep Anand, will oversee the process of maintaining the Certification of Financial Responsibility to ensure compliance with the requirements of the FDEP permit applications.

Delegation of Authority

The addition of two new Class I injection wells at the CDWWTP requires an update to the Certification of Financial Responsibility for the CDWWTP, which was adopted by this Board in March 2018 (Resolution No. R-227-18, attached hereto as Exhibit C). Through this item, the County Mayor or County Mayor's designee will be delegated authority to execute and submit the updated Certification of Financial Responsibility to the FDEP on the County's behalf.

Background

The CDWWTP is a 143 million gallon per day facility located at 3989 Rickenbacker Causeway in Virginia Key. The treated effluent is discharged via an ocean outfall located three miles off the coast. To comply with the State of Florida's Ocean Outfall Legislation, which mandates that all ocean outfalls statewide cease operations on December 31, 2025, the County constructed two Class I injection wells and one monitoring well at the CDWWTP. The two existing Class I injection wells are used to divert flows out of the existing ocean outfall and to dispose of treatment plant process flows, wastewater effluent, and landfill leachate into an underground formation known as the Boulder Zone, which is approximately 3,000 feet below the ground surface. The monitoring well is used to monitor groundwater quality above the injection zone.

On September 24, 2018, WASD submitted to FDEP a Class I underground injection well (UIC) construction permit application (Permit No. 0317749-006-012-UC/M) to allow WASD to construct an additional seven injection wells and four monitoring wells as part of the County's Ocean Outfall Legislation Compliance Plan. The seven additional injection wells currently being drilled at the CDWWTP will further divert flows out of the ocean outfall and dispose of wastewater effluent into the Boulder Zone. The four monitoring wells currently being drilled at the CDWWTP will be used to monitor groundwater quality above the injection zone.

On November 4, 2020, WASD submitted a permit modification to the above referenced UIC permit [DEP Application No.: 0317749-017(CDIW-10)-018(CDIW-11)-UC/1M] to add two new additional municipal injection wells as part of the Ocean Outfall Legislation Compliance Plan. The two new injection wells that the County is seeking permission from FDEP to build will increase capacity and nutrient diversion at the CDWWTP. Therefore, the Certification of Financial Responsibility must be updated to include the two additional new injection wells the County has applied to construct.

In accordance with Rule 62-528.435(9) of the Florida Administrative Code, the County must demonstrate it has the ability to maintain the financial responsibility and resources necessary to close, plug, and abandon the underground injection operations as a condition to the issuance of any injection well operation permit. The Certification of Financial Responsibility, attached hereto as Exhibit A, confirms the County's ability to comply with Rule 62-528.435(9) of the Florida Administrative Code.



Jimmy Morales
Chief Operations Office

Exhibit A

CERTIFICATION OF FINANCIAL RESPONSIBILITY

The County of Miami-Dade, a unit of local government of the State of Florida, hereby certifies that it has unconditionally obligated itself to have the financial resources necessary to close, plug, and abandon its Class I underground injection well(s) and related monitoring wells, as required by Chapter 62-528, Florida Administrative Code. It is further understood that the cost estimate to conduct plugging and abandonment, established on March 14, 2021, shall be reviewed on an annual basis and this obligation shall incorporate accumulated inflation costs. An annual adjustment exceeding 10 percent in any one year shall require submission of an updated certification form.

Facility where the wells will be located and operated:

Facility Name: Central District Wastewater Treatment Plant

Facility Address: 3989 Rickenbacker Causeway, Miami, FL 33149

Facility Contact: Wayne Myers

Phone Number: 786-552-4213

Latitude/Longitude of Facility: 25°44'41.53" / 80°08'49.85"

DEP/EPA WACS Facility Number: 101237

Total Current Plugging and Abandonment Cost Estimate (all wells): \$ 3,894,134

List of facility injection and associated monitoring well(s) covered by this Certification:

Injection Well CDIW-1

DEP/EPA WACS Well Number: 14048
Latitude/Longitude of Injection Well: 25°44'55.42" / 80°08'50.50"
Current Plugging and Abandonment Cost Estimate: \$ 316,742

Injection Well CDIW-2

DEP/EPA WACS Well Number: 14049
Latitude/Longitude of Injection Well: 25°44'58.39" / 80°08'50.48"
Current Plugging and Abandonment Cost Estimate: \$ 310,687

Injection Well CDIW-3

DEP/EPA WACS Well Number: 14105
Latitude/Longitude of Injection Well: 25°45'01.7402" / 80°08'50.8209"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-4

DEP/EPA WACS Well Number: 14106
Latitude/Longitude of Injection Well: 25°45'04.1424" / 80°08'50.7268"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-5

EP/EPA WACS Well Number: 14107
Latitude/Longitude of Injection Well: 25°45'05.1281" / 80°08'52.8769"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-6

EP/EPA WACS Well Number: 14108
Latitude/Longitude of Injection Well: 25°45'05.1699" / 80°09'06.3639"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-7

EP/EPA WACS Well Number: 14109
Latitude/Longitude of Injection Well: 25°45'05.1517" / 80°09'09.0739"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-8

EP/EPA WACS Well Number: 14110
Latitude/Longitude of Injection Well: 25°45'05.1974" / 80°09'13.0910"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-9

EP/EPA WACS Well Number: 14111
Latitude/Longitude of Injection Well: 25°45'01.7815" / 80°09'13.0706"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-10

EP/EPA WACS Well Number: Not yet assigned
Latitude/Longitude of Injection Well: 25°45'02.700" / 80°08'52.9152"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Injection Well CDIW-11

EP/EPA WACS Well Number: Not yet assigned
Latitude/Longitude of Injection Well: 25°45'00.4824" / 80°08'53.6208"
Current Plugging and Abandonment Cost Estimate: \$ 297,344

Monitoring Well CDIDZMW-1

DEP/EPA WACS Well Number: 29823A/B
Latitude/Longitude of Injection Well: 25°44'56.91" / 80°08' 50.49"
Current Plugging and Abandonment Cost Estimate: \$ 119,686

Monitoring Well CDMW-2

EP/EPA WACS Well Number: 30301A/B
Latitude/Longitude of Injection Well: 25°45'02.9262" / 80°08' 50.7729"
Current Plugging and Abandonment Cost Estimate: \$ 117,731

Monitoring Well CDMW-3

EP/EPA WACS Well Number: 30302A/B
Latitude/Longitude of Injection Well: 25°45'05.1488" / 80°08' 51.62"
Current Plugging and Abandonment Cost Estimate: \$ 117,731

Monitoring Well CDMW-4

EP/EPA WACS Well Number: 30303A/B
Latitude/Longitude of Injection Well: 25°45'05.1976" / 80°09' 07.6982"
Current Plugging and Abandonment Cost Estimate: \$ 117,731

Monitoring Well CDMW-5

EP/EPA WACS Well Number:

30304A/B

Latitude/Longitude of Injection Well:

25°45'03.5334" / 80°09' 13.0269"

Current Plugging and Abandonment Cost Estimate:

\$ 117,731

It is hereby understood that the cancellation of this certification may not take place without the prior written consent of the Secretary of the Florida Department of Environmental Protection.

(Signature)

Daniella Levine Cava

(Print Name)

Mayor of Miami-Dade County

(Title)

APPROVED AS TO FORM:

Office of the County Attorney

(Date)

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

Sworn to (or affirmed) and subscribed before me this _____ day of _____ 2021, by

_____ of the Miami-Dade County, who is personally known

to me,

(SEAL)

Exhibit B

WASD Central District WWTP Injection Well System Plugging and Abandonment Opinion of Cost Apr-2021

	Unit Cost	Unit	Number of Units	April 2021 Total Cost
WASD Central District WWTP Injection Well CDIIW-1				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,785 feet 3,240 feet bls	\$10	CF	1,403	\$14,033
5 Fill the 23.78-inch Inside Diameter (ID) FRP Casing and 10 feet of open hole to land surface with neat cement	\$18	CF	8,590	\$154,614
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$243,647
10 Percent Contingency				\$24,365
20 Engineering Fees				\$48,729
TOTAL ESTIMATED COST FOR CDIIW-1				\$316,742
WASD Central District WWTP Injection Well CDIIW-2				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,615 feet 3,225 feet bls	\$10	CF	1,881	\$18,814
5 Fill the 23.78-inch Inside Diameter (ID) FRP Casing and 10 feet of open hole to land surface with neat cement	\$18	CF	8,065	\$145,176
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$238,990
10 Percent Contingency				\$23,899
20 Engineering Fees				\$47,798
TOTAL ESTIMATED COST FOR CDIIW-2				\$310,687
WASD Central District WWTP Injection Well CDIIW-3				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIIW-3				\$297,344

**WASD Central District WWTP Injection Well System
Plugging and Abandonment Opinion of Cost
Apr-2021**

	Unit Cost	Unit	Number of Units	April 2021 Total Cost
WASD Central District WWTP Injection Well CDIW-4				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-4				\$297,344

WASD Central District WWTP Injection Well CDIW-5				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-5				\$297,344

WASD Central District WWTP Injection Well CDIW-6				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-6				\$297,344

**WASD Central District WWTP Injection Well System
Plugging and Abandonment Opinion of Cost
Apr-2021**

	Unit Cost	Unit	Number of Units	April 2021 Total Cost
WASD Central District WWTP Injection Well CDIW-7				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-7				\$297,344

WASD Central District WWTP Injection Well CDIW-8				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-8				\$297,344

WASD Central District WWTP Injection Well CDIW-9				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-9				\$297,344

**WASD Central District WWTP Injection Well System
Plugging and Abandonment Opinion of Cost
Apr-2021**

	Unit Cost	Unit	Number of Units	April 2021 Total Cost
WASD Central District WWTP Injection Well CDIW-10				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-10				\$297,344

WASD Central District WWTP Injection Well CDIW-11				
1 Mobilize the drill rig and kill the well	\$50,000	LS	1	\$50,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 2,660 feet 3,200 feet bls	\$10	CF	1,558	\$15,580
5 Fill the 23.00-inch Inside Diameter (ID) steel casing and 10 feet of open hole to land surface with neat cement	\$18	CF	7,675	\$138,146
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$228,726
10 Percent Contingency				\$22,873
20 Engineering Fees				\$45,745
TOTAL ESTIMATED COST FOR CDIW-11				\$297,344

**WASD Central District WWTP Injection Well System
Plugging and Abandonment Opinion of Cost
Apr-2021**

	Unit Cost	Unit	Number of Units	April 2021 Total Cost
WASD Central District WWTP Monitoring Well CDIDZMW-1				
Lower Monitoring Zone				
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4 Install gravel in the Lower Zone open hole from 1,660 feet to 1,700 feet bls	\$30	CF	33	\$982
5 Fill the 6.625-inch Nominal Diameter FRP tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	274	\$5,471
Upper Monitoring Zone				
1 Install gravel in the annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing from from 1,160 feet to 1,240 feet bls	\$20	CF	83	\$1,652
2 Fill annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	1,198	\$23,961
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$92,066
10 Percent Contingency				\$9,207
20 Engineering Fees				\$18,413
TOTAL ESTIMATED COST FOR MONITORING WELL CDIDZMW-1				\$119,686

WASD Central District WWTP Monitoring Well CDMW-2				
Lower Monitoring Zone				
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4 Install gravel in the Lower Zone open hole from 1,610 feet to 1,650 feet bls	\$30	CF	33	\$982
5 Fill the 6.625-inch Nominal Diameter FRP tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	265	\$5,310
Upper Monitoring Zone				
1 Install gravel in the annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing from from 1,135 feet to 1,175 feet bls	\$20	CF	41	\$826
2 Fill annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	1,172	\$23,444
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$90,563
10 Percent Contingency				\$9,056
20 Engineering Fees				\$18,113
TOTAL ESTIMATED COST FOR MONITORING WELL CDMW-2				\$117,731

**WASD Central District WWTP Injection Well System
Plugging and Abandonment Opinion of Cost
Apr-2021**

	Unit Cost	Unit	Number of Units	April 2021 Total Cost
WASD Central District WWTP Monitoring Well CDMW-3				
Lower Monitoring Zone				
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4 Install gravel in the Lower Zone open hole from 1,610 feet to 1,650 feet bls	\$30	CF	33	\$982
5 Fill the 6.625-inch Nominal Diameter FRP tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	265	\$5,310
Upper Monitoring Zone				
1 Install gravel in the annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing from from 1,135 feet to 1,175 feet bls	\$20	CF	41	\$826
2 Fill annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	1,172	\$23,444
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$90,563
10 Percent Contingency				\$9,056
20 Engineering Fees				\$18,113
TOTAL ESTIMATED COST FOR MONITORING WELL CDMW-3				\$117,731

WASD Central District WWTP Monitoring Well CDMW-4				
Lower Monitoring Zone				
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4 Install gravel in the Lower Zone open hole from 1,610 feet to 1,650 feet bls	\$30	CF	33	\$982
5 Fill the 6.625-inch Nominal Diameter FRP tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	265	\$5,310
Upper Monitoring Zone				
1 Install gravel in the annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing from from 1,135 feet to 1,175 feet bls	\$20	CF	41	\$826
2 Fill annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	1,172	\$23,444
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$90,563
10 Percent Contingency				\$9,056
20 Engineering Fees				\$18,113
TOTAL ESTIMATED COST FOR MONITORING WELL CDMW-4				\$117,731

**WASD Central District WWTP Injection Well System
Plugging and Abandonment Opinion of Cost
Apr-2021**

	Unit Cost	Unit	Number of Units	April 2021 Total Cost
WASD Central District WWTP Monitoring Well CDMW-5				
Lower Monitoring Zone				
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4 Install gravel in the Lower Zone open hole from 1,610 feet to 1,650 feet bls	\$30	CF	33	\$982
5 Fill the 6.625-inch Nominal Diameter FRP tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	265	\$5,310
Upper Monitoring Zone				
1 Install gravel in the annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing from from 1,135 feet to 1,175 feet bls	\$20	CF	41	\$826
2 Fill annular space between the 16-inch OD casing and 6.625-inch Nominal Diameter FRP Tubing and 10 feet of open hole to land surface with neat cement	\$20	CF	1,172	\$23,444
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$90,563
10 Percent Contingency				\$9,056
20 Percent Engineering Fees				\$18,113
TOTAL ESTIMATED COST FOR MONITORING WELL CDMW-5				\$117,731
TOTAL ESTIMATED COST - INJECTION WELL CDIW-1				\$316,742
TOTAL ESTIMATED COST - INJECTION WELL CDIW-2				\$310,687
TOTAL ESTIMATED COST - MONITOR WELL CDIDZMW-1				\$119,686
TOTAL ESTIMATED COST - 7 MUNICIPAL INJECTION WELLS (CDIW-3 to CDIW-9)				\$2,081,406
TOTAL ESTIMATED COST - 4 MONITOR WELLS (CDMW-2 to CDMW-5)				\$470,925
TOTAL ESTIMATED COST - 2 ADD. MUNICIPAL INJECTION WELLS (CDIW-10 to CDIW-11)				\$594,688
TOTAL				\$3,894,134

- 1 This cost estimate does not include monitoring or testing prior to abandonment.
- 2 Costs assume each well is abandoned at different times.
- 3 Costs do not assume post-closure monitoring.

Memorandum



Date: March 6, 2018

To: Honorable Chairman Esteban L. Bovo, Jr.
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

A handwritten signature in black ink, appearing to read "Carlos A. Gimenez".

Agenda Item No. 8(0)(1)

Resolution No. R-227-18

Subject: Resolution Approving the Certification of Financial Responsibility as Required by Rule 62-528.435(9) of the Florida Administrative Code for Underground Injection Wells and Related Monitoring Wells at the County's Central District Wastewater Treatment Plant

Recommendation

It is recommended that the Board of County Commissioners (Board) approve the attached resolution that approves the Certification of Financial Responsibility (attached hereto as Exhibit A) as required by Rule 62-528.435(9) of the Florida Administrative Code.

This Certification of Financial Responsibility confirms that the County has the financial resources necessary to close, plug and abandon two existing Class I underground injection wells, one existing related monitoring well, and to close, plug and abandon seven new Class I underground injection wells and four related monitoring wells that will be constructed by the County at the Central District Wastewater Treatment Plant after a permit is issued by the Florida Department of Environmental Protection (FDEP). This certification is a requirement of FDEP's permit application and approval process. The permit will allow the Miami-Dade Water and Sewer Department (WASD) to operate the two Class I underground injection wells at the Central District Wastewater Treatment Plant, with the related monitoring well which is an auxiliary requirement, and to construct the seven new Class I underground injection wells and four related monitoring wells.

Scope

This item is of countywide significance as the County's wastewater system is interconnected. The injection wells and monitoring wells are located in District 7, represented by Commissioner Xavier L. Suarez.

Fiscal Impact/Funding Source

There is no fiscal impact related to Board approval of this Certification of Financial Responsibility. There will only be a fiscal impact if a well is plugged and abandoned. In the event any of the wells need to be plugged and abandoned, the estimated cost for each well is itemized in Exhibit B. The funding source for plugging and abandoning a well is sewer operations and maintenance revenue.

Track Record/Monitor

WASD's Deputy Director of Capital Improvements and Regulatory Compliance, Hardeep Anand, will oversee the process of maintaining the Certification of Financial Responsibility to ensure compliance with the requirements of the Florida Department of Environmental Protection's permit application.

Background

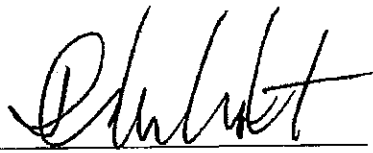
The Central District Wastewater Treatment Plant is a 143 million gallons per day facility located at 3989 Rickenbacker Causeway in Virginia Key. The treated effluent is discharged via an ocean outfall located

Honorable Chairman Esteban L. Bovo, Jr.
and Members, Board of County Commissioners
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three miles off the coast. To comply with the State's Ocean Outfall Legislation, which mandates that all ocean outfalls statewide cease operations on December 31, 2025, the County has constructed two Class I injection wells and one monitoring well at the Central District Wastewater Treatment Plant that will be used to divert flows out of the existing ocean outfall to dispose of treatment plant process flows, wastewater effluent, and landfill leachate into an underground formation known as the Boulder Zone, which is approximately 3,000 feet below the ground surface. The monitoring well will be used to monitor ground water quality above the injection zone.

WASD submitted to FDEP a Class I underground injection well construction permit application on November 18, 2017 to construct an additional seven injection wells and four monitoring wells as part of the Ocean Outfall Legislation Compliance Plan. These additional injection wells will be used to further divert flows out of the ocean outfall and to dispose of wastewater effluent into the Boulder Zone, and the additional monitoring wells will be used to monitor groundwater quality above the injection zone.

In accordance with Rule 62-528.435(9) of the Florida Administrative Code, the County must demonstrate it has the ability to maintain the financial responsibility and resources necessary to close, plug, and abandon the underground injection operations as a condition to the issuance of any injection well operation permit. The Certification of Financial Responsibility confirms the County's ability to comply with Rule 62-528.435(9) of the Florida Administrative Code.



Jack Osterholt
Deputy Mayor

Exhibit A

CERTIFICATION OF FINANCIAL RESPONSIBILITY

The County of Miami-Dade, a unit of local government of the State of Florida, hereby certifies that it has unconditionally obligated itself to have the financial resources necessary to close, plug, and abandon its Class I underground injection well(s) and related monitoring wells, as required by Chapter 62-528, Florida Administrative Code. It is further understood that the cost estimate to conduct plugging and abandonment, established on November 1, 2017, shall be reviewed on an annual basis and this obligation shall incorporate accumulated inflation costs. An annual adjustment exceeding 10 percent in any one year shall require submission of an updated certification form.

Facility where the wells will be located and operated:

Facility Name: Central District Wastewater Treatment Plant

Facility Address: 3989 Rickenbacker Causeway, Miami, FL 33149

Facility Contact: Francois Saint-Phard

Phone Number: 786-552-4213

Latitude/Longitude of Facility: 25°44'41.53" / 80°08'49.85"

DEP/EPA WACS Facility Number: 101237

Total Current Plugging and Abandonment Cost Estimate (all wells): \$ 3,697,645

List of facility injection and associated monitoring well(s) covered by this Certification:

Injection Well IW-1

DEP/EPA WACS Well Number: 14048
Latitude/Longitude of Injection Well: 25°44'55.42" / 80°08'50.50"
Current Plugging and Abandonment Cost Estimate: \$ 359,027

Injection Well IW-2

DEP/EPA WACS Well Number: 14049
Latitude/Longitude of Injection Well: 25°44'58.39" / 80°08'50.48"
Current Plugging and Abandonment Cost Estimate: \$ 353,786

Injection Well IW-3

DEP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'05.15" / 80°08'51.62"
Current Plugging and Abandonment Cost Estimate: \$ 336,219

Injection Well IW-4

DEP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'03.6612" / 80°08'50.3376"
Current Plugging and Abandonment Cost Estimate: \$ 336,219

Injection Well IW-5

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'05.5656" / 80°08'51.5148"
Current Plugging and Abandonment Cost Estimate: \$ 336,219

4

Injection Well IW-6

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'05.6046" / 80°09'10.8252"
Current Plugging and Abandonment Cost Estimate: \$ 336,219

Injection Well IW-7

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'04.9998" / 80°09'13.593"
Current Plugging and Abandonment Cost Estimate: \$ 336,219

Injection Well IW-8

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'01.9944" / 80°09'13.593"
Current Plugging and Abandonment Cost Estimate: \$ 336,219

Injection Well IW-9

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°44'59.1468" / 80°09'13.593"
Current Plugging and Abandonment Cost Estimate: \$ 336,219

Monitoring Well DZMW-1 (CDIDZMW-1)

DEP/EPA WACS Well Number: 29823A/B
Latitude/Longitude of Injection Well: 25°44'56.91" / 80°08' 50.49"
Current Plugging and Abandonment Cost Estimate: \$ 128,095

Monitoring Well DZMW-2

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'02.3292" / 80°08' 50.4126"
Current Plugging and Abandonment Cost Estimate: \$ 125,801

Monitoring Well DZMW-3

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'04.8954" / 80°08' 50.2866"
Current Plugging and Abandonment Cost Estimate: \$ 125,801

Monitoring Well DZMW-4

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'05.58" / 80°09' 12.258"
Current Plugging and Abandonment Cost Estimate: \$ 125,801

Monitoring Well DZMW-5

EP/EPA WACS Well Number: Not Yet Assigned
Latitude/Longitude of Injection Well: 25°45'00.5826" / 80°09' 13.6044"
Current Plugging and Abandonment Cost Estimate: \$ 125,801

It is hereby understood that the cancellation of this certification may not take place without the prior written consent of the Secretary of the Florida Department of Environmental Protection.

(Signature)

Carlos A. Gimenez

(Print Name)

Mayor of Miami-Dade County

(Title)

(Date)

APPROVED AS TO FORM:

Shirley Elanice Davis 12/20/17
Office of the County Attorney

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

Sworn to (or affirmed) and subscribed before me this _____ day of _____ 2018, by

_____ of the Miami-Dade County, who is personally known
to me,

(SEAL)

EXHIBIT B

WASD Central District WWTP Injection Well System
Plugging and Abandonment Opinion of Cost

WASD Central WWTP Injection Well System Plugging and Abandonment Opinion of Cost

	Casing Info	Unit		
WASD Central District WWTP Industrial Injection Well IW-1				
Casing O.D. (in)	25.960	IN		
Casing Thickness (in)	1.090	IN		
I.D. (in)	23.780	IN		
Depth (ft)	2,775	FT		
Total Depth	3,240	FT		
Cement Vol. (cu.ft) (includes 10 feet below casing)	8,596	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,672	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the Injection zone open hole from 3,240 feet bis to 2,785 feet bis	\$10	CF	1,672	\$16,720
5 Fill the 23.78-Inch Inside Diameter (ID) FRP tubing to land surface with neat cement	\$18	CF	8,596	\$154,728
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$256,448
20 Percent Contingency				\$51,290
20 Engineering Fees				\$51,290
TOTAL ESTIMATED COST INDUSTRIAL INJECTION WELL IW-1 \$358,928				

	Casing Info	Unit		
WASD Central District WWTP Industrial Injection Well IW-2				
Casing O.D. (in)	25.960	IN		
Casing Thickness (in)	1.090	IN		
I.D. (in)	23.780	IN		
Depth (ft)	2,605	FT		
Total Depth	3,225	FT		
Cement Vol. (cu.ft) (includes 10 feet below casing)	8,071	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	2,242	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the Injection zone open hole from 3,225 feet bis to 2,615 feet bis	\$10	CF	2,242	\$22,422
5 Fill the 23.78-Inch Inside Diameter (ID) FRP tubing to land surface with neat cement	\$18	CF	8,071	\$145,283
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$252,704
20 Percent Contingency				\$50,541
20 Engineering Fees				\$50,541
TOTAL ESTIMATED COST INDUSTRIAL INJECTION WELL IW-2 \$353,788				

	Casing Info	Unit		
WASD Central District WWTP Municipal Injection Well IW-3				
Casing O.D. (in)	24.000	IN		
Casing Thickness (in)	0.600	IN		
I.D. (in)	23.000	IN		
Depth (ft)	2,650	FT		
Total Depth	3,200	FT		
Cement Vol. (cu.ft) (includes 10 feet below casing)	7,677	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,696	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the Injection zone open hole from 3,200 feet bis to 2,660 feet bis	\$10	CF	1,696	\$16,966
5 Fill the 23.00-Inch Inside Diameter (ID) steel casing to land surface with neat cement	\$18	CF	7,677	\$138,192
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$240,156
20 Percent Contingency				\$48,031
20 Engineering Fees				\$48,031
TOTAL ESTIMATED COST MUNICIPAL INJECTION WELL IW-3 \$336,219				

Casing Info		Unit		
WASD Central District WWTP Municipal Injection Well IW-4				
Casing O.D. (in)	24,000	IN		
Casing Thickness (in)	0.500	IN		
I.D (in)	23,000	IN		
Depth (ft)	2,650	FT		
Total Depth	3,200	FT		
Cement Vol. (cu.ft) (includes 10 feet below casing)	7,677	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,696	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 3,200 feet bis to 2,650 feet	\$10	CF	1,696	\$16,965
5 Fill the 23.00-inch Inside Diameter (ID) steel casing to land surface with neat cement	\$18	CF	7,677	\$138,192
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$240,156
20 Percent Contingency				\$48,031
20 Engineering Fees				\$48,031
TOTAL ESTIMATED COST MUNICIPAL INJECTION WELL IW-4				\$336,219

Casing Info		Unit		
WASD Central District WWTP Municipal Injection Well IW-5				
Casing O.D. (in)	24,000	IN		
Casing Thickness (in)	0.500	IN		
I.D (in)	23,000	IN		
Depth (ft)	2,650	FT		
Total Depth	3,200	FT		
Cement Vol. (cu.ft) (Includes 10 feet below casing)	7,677	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,696	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 3,200 feet bis to 2,650 feet bis	\$10	CF	1,696	\$16,965
5 Fill the 23.00-inch Inside Diameter (ID) steel casing to land surface with neat cement	\$18	CF	7,677	\$138,192
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$240,156
20 Percent Contingency				\$48,031
20 Engineering Fees				\$48,031
TOTAL ESTIMATED COST MUNICIPAL INJECTION WELL IW-5				\$336,219

Casing Info		Unit		
WASD Central District WWTP Municipal Injection Well IW-6				
Casing O.D. (in)	24,000	IN		
Casing Thickness (in)	0.500	IN		
I.D (in)	23,000	IN		
Depth (ft)	2,650	FT		
Total Depth	3,200	FT		
Cement Vol. (cu.ft) (includes 10 feet below casing)	7,677	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,696	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the injection zone open hole from 3,200 feet bls to 2,660 feet bls	\$10	CF	1,696	\$16,965
5 Fill the 23.00-inch Inside Diameter (ID) steel casing to land surface with neat cement	\$18	CF	7,677	\$138,192
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$240,156
20 Percent Contingency				\$48,031
20 Engineering Fees				\$48,031
TOTAL ESTIMATED COST MUNICIPAL INJECTION WELL IW-6				\$336,219

Casing Info		Unit		
WASD Central District WWTP Municipal Injection Well IW-7				
Casing O.D. (in)	24.000	IN		
Casing Thickness (in)	0.500	IN		
I.D (in)	23.000	IN		
Depth (ft)	2,650	FT		
Total Depth	3,200	FT		
Cement Vol. (cu.ft) (includes 10 feet below casing)	7,877	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,696	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the Injection zone open hole from 3,200 feet bis to 2,660 feet bis	\$10	CF	1,696	\$16,965
5 Fill the 23.00-Inch Inside Diameter (ID) steel casing to land surface with neat cement	\$18	CF	7,677	\$138,192
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$240,156
20 Percent Contingency				\$48,031
20 Engineering Fees				\$48,031
TOTAL ESTIMATED COST MUNICIPAL INJECTION WELL IW-7				\$336,218

Casing Info		Unit		
WASD Central District WWTP Municipal Injection Well IW-8				
Casing O.D. (in)	24.000	IN		
Casing Thickness (in)	0.500	IN		
I.D (in)	23.000	IN		
Depth (ft)	2,650	FT		
Total Depth	3,200	FT		
Cement Vol. (cu.ft) (Includes 10 feet below casing)	7,677	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,696	CF		
	Unit Cost	Unit	Number of Units	SEP 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the Injection zone open hole from 3,200 feet bis to 2,660 feet bis	\$10	CF	1,696	\$16,965
5 Fill the 23.00-Inch Inside Diameter (ID) steel casing to land surface with neat cement	\$18	CF	7,677	\$138,192
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$240,156
20 Percent Contingency				\$48,031
20 Engineering Fees				\$48,031
TOTAL ESTIMATED COST MUNICIPAL INJECTION WELL IW-8				\$336,218

Casing Info		Unit		
WASD Central District WWTP Municipal Injection Well IW-9				
Casing O.D. (in)	24.000	IN		
Casing Thickness (in)	0.500	IN		
I.D (in)	23.000	IN		
Depth (ft)	2,650	FT		
Total Depth	3,200	FT		
Cement Vol. (cu.ft) (includes 10 feet below casing)	7,877	CF		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1,696	CF		
	Unit Cost	Unit	Number of Units	MAY 2017 Total Cost
1 Mobilize the drill rig and kill the well	\$60,000	LS	1	\$60,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$15,000	LS	1	\$15,000
4 Install gravel in the Injection zone open hole from 3,200 feet bls to 2,660 feet bls	\$10	CF	1,696	\$16,965
5 Fill the 23.00-Inch Inside Diameter (ID) steel casing to land surface with neat cement	\$18	CF	7,677	\$138,192
6 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Injection Well Only Cost				\$240,156
20 Percent Contingency				\$48,031
20 Engineering Fees				\$48,031
TOTAL ESTIMATED COST MUNICIPAL INJECTION WELL IW-9				\$336,218

Casing Info		Unit		
WASD Central District WWTP Dual-Zone Monitoring Well 1 (GDIDZMW-1)				
Upper Casing O.D.	18,000	in		
Upper Casing Thickness (in)	0.500	in		
Lower Casing O.D.	5,970	in		
Lower Casing Thickness(in)	0.270	in		
Upper Casing Depth (ft)	1,150	ft		
Upper Open hole Depth (ft)	1,240	ft		
Lower Casing Depth (ft)	1,650	ft		
Lower Zone Open Hole Depth (ft)	1,700	ft		
Annular space volume (cu.ft.)	1200	cu.ft.		
Lower Cement volume (cu.ft.) (Includes 10 feet below casing)	287	cu.ft.		
Lower Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	8	cu.ft.		
Upper Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	96	cu.ft.		
			Number of	MAY 2017 Total
Lower Monitor Zone		Unit Cost	Units	Cost
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4				
Install gravel in the Lower Zone open hole from 1,710 feet bls to 1,770 feet bls	\$30	CF	8	\$233
5 Fill the 8.625-inch FRP tubing from 1,720 feet bls to land surface with neat cement	\$20	CF	287	\$5,346
Upper Monitor Zone				
1 Install gravel in the annular space between the 14.00-inch OD and 8.625-inch casings from 1,431 feet bls to 1,402 feet bls	\$20	CF	96	\$1,923
2 Fill annular space between the 14.00-inch OD and 8.625-inch OD casings from 1,402 feet bls to land surface with neat cement	\$20	CF	1,200	\$23,995
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$91,497
20 Percent Contingency				\$18,299
20 Engineering Fees				\$18,299
TOTAL ESTIMATED COST FOR GDIDZMW-1				\$128,099

Casing Info		Unit		
WASD Central District WWTP Dual-Zone Monitoring Well 2 (DZMW-2)				
Upper Casing O.D.	18.000	IN		
Upper Casing Thickness (in)	0.500	IN		
Lower Casing O.D.	6.970	IN		
Lower Casing Thickness(in)	0.270	IN		
Upper Casing Depth (ft)	1,125	FT		
Upper Open hole Depth (ft)	1,175	FT		
Lower Casing Depth (ft)	1,600	FT		
Lower Zone Open Hole Depth (ft)	1,650	FT		
Annular space volume (cu.ft.)	1174	CF		
Lower Cement volume (cu.ft.) (Includes 10 feet below casing)	259	CF		
Lower Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	8	CF		
Upper Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	48	CF		
			Number of	MAY 2017 Total
Lower Monitor Zone		Unit Cost	Units	Cost
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4				
Install gravel in the Lower Zone open hole from 1,710 feet bls to 1,770 feet bls	\$30	CF	8	\$233
5 Fill the 8.625-inch FRP tubing from 1,720 feet bls to land surface with neat cement	\$20	CF	259	\$5,185
Upper Monitor Zone				
1 Install gravel in the annular space between the 14.00-inch OD and 8.625-inch casings from 1,431 feet bls to 1,402 feet bls	\$20	CF	48	\$961
2 Fill annular space between the 14.00-inch OD and 8.625-inch OD casings from 1,402 feet bls to land surface with neat cement	\$20	CF	1,174	\$23,478
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$89,858
20 Percent Contingency				\$17,972
20 Engineering Fees				\$17,972
TOTAL ESTIMATED COST FOR DUAL ZONE MONITORING WELL				\$125,801

	Casing Info	Unit		
WASD Central District WWTP Dual-Zone Monitoring Well 3 (DZMW-3)				
Upper Casing O.D.	16.000	IN		
Upper Casing Thickness (in)	0.500	IN		
Lower Casing O.D.	5.970	IN		
Lower Casing Thickness(in)	0.270	IN		
Upper Casing Depth (ft)	1,125	FT		
Upper Open hole Depth (ft)	1,175	FT		
Lower Casing Depth (ft)	1,800	FT		
Lower Zone Open Hole Depth (ft)	1,650	FT		
Annular space volume (cu.ft.)	1174	CF		
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	259	CF		
Lower Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	8	CF		
Upper Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	48	CF		
			Number of	MAY 2017 Total
	Unit Cost	Unit	Units	Cost
Lower Monitor Zone				
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4				
Install gravel in the Lower Zone open hole from 1,710 feet bis to 1,770 feet bis	\$30	CF	8	\$233
5 Fill the 8.625-inch FRP tubing from 1,720 feet bis to land surface with neat cement	\$20	CF	259	\$5,185
Upper Monitor Zone				
1 Install gravel in the annular space between the 14.00-inch OD and 8.625-inch casings from 1,431 feet bis to 1,402 feet bis	\$20	CF	48	\$961
2 Fill annular space between the 14.00-inch OD and 8.625-inch OD casings from 1,402 feet bis to land surface with neat cement	\$20	CF	1,174	\$23,478
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$89,858
20 Percent Contingency				\$17,972
20 Engineering Fees				\$17,972
TOTAL ESTIMATED COST FOR DUAL-ZONE MONITORING WELLS				\$125,803

	Casing Info	Unit		
WASD Central District WWTP Dual-Zone Monitoring Well 4 (DZMW-4)				
Upper Casing O.D.	16.000	IN		
Upper Casing Thickness (in)	0.500	IN		
Lower Casing O.D.	5.970	IN		
Lower Casing Thickness(in)	0.270	IN		
Upper Casing Depth (ft)	1,125	FT		
Upper Open hole Depth (ft)	1,175	FT		
Lower Casing Depth (ft)	1,800	FT		
Lower Zone Open Hole Depth (ft)	1,650	FT		
Annular space volume (cu.ft.)	1174	CF		
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	259	CF		
Lower Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	8	CF		
Upper Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	48	CF		
			Number of	MAY 2017 Total
	Unit Cost	Unit	Units	Cost
Lower Monitor Zone				
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4				
Install gravel in the Lower Zone open hole from 1,710 feet bis to 1,770 feet bis	\$30	CF	8	\$233
5 Fill the 8.625-inch FRP tubing from 1,720 feet bis to land surface with neat cement	\$20	CF	259	\$5,185
Upper Monitor Zone				
1 Install gravel in the annular space between the 14.00-inch OD and 8.625-inch casings from 1,431 feet bis to 1,402 feet bis	\$20	CF	48	\$961
2 Fill annular space between the 14.00-inch OD and 8.625-inch OD casings from 1,402 feet bis to land surface with neat cement	\$20	CF	1,174	\$23,478
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$89,858
20 Percent Contingency				\$17,972
20 Engineering Fees				\$17,972
TOTAL ESTIMATED COST FOR DUAL-ZONE MONITORING WELLS				\$125,803

Casing Info		Unit		
WASD Central District WWTP Dual-Zone Monitoring Well 5 (DZMW-5)				
Upper Casing O.D.	18,000	IN		
Upper Casing Thickness (in)	0.600	IN		
Lower Casing O.D.	5,970	IN		
Lower Casing Thickness(in)	0.270	IN		
Upper Casing Depth (ft)	1,125	FT		
Upper Open hole Depth (ft)	1,175	FT		
Lower Casing Depth (ft)	1,800	FT		
Lower Zone Open Hole Depth (ft)	1,650	FT		
Annular space volume (cu.ft.)	1174	CF		
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	259	CF		
Lower Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	8	CF		
Upper Open Hole Vol. (cu.ft.) (assumes inner casing dia.)	48	CF		
			Number of	MAY 2017 Total
		Unit Cost	Units	Cost
Lower Monitor Zone		Unit		
1 Mobilize the drill rig and kill the well	\$40,000	LS	1	\$40,000
2 Remove Wellhead	\$5,000	LS	1	\$5,000
3 Geophysical logging	\$10,000	LS	1	\$10,000
4				
Install gravel in the Lower Zone open hole from 1,710 feet bis to 1,770 feet bis	\$30	CF	8	\$233
6 Fill the 8.625-inch FRP tubing from				
1,720 feet bis to land surface with neat cement	\$20	CF	259	\$5,185
Upper Monitor Zone				
1 Install gravel in the annular space between the 14.00-inch OD and 8.625-inch casings from 1,431 feet bis to 1,402 feet bis	\$20	CF	48	\$961
2 Fill annular space between the 14.00-inch OD and 8.625-inch OD casings from 1,402 feet bis to land surface with neat cement	\$20	CF	1,174	\$23,478
3 Complete below ground/add monument	\$5,000	LS	1	\$5,000
Plug and Abandonment of Dual Zone Monitor Well Only Cost				\$89,858
20 Percent Contingency				\$17,972
20 Engineering Fees				\$17,972
TOTAL ESTIMATED COST FOR DUAL ZONE MONITORING WELL				\$125,801



MEMORANDUM

(Revised)

TO: Honorable Chairman Esteban L. Bovo, Jr.
and Members, Board of County Commissioners

DATE: March 6, 2018

FROM: Abigail Price-Williams
County Attorney

SUBJECT: Agenda Item No. 8(0)(1)

Please note any items checked.

- ☐ "3-Day Rule" for committees applicable if raised
- ☐ 6 weeks required between first reading and public hearing
- ☐ 4 weeks notification to municipal officials required prior to public hearing
- ☐ Decreases revenues or increases expenditures without balancing budget
- ☐ Budget required
- ☐ Statement of fiscal impact required
- ☐ Statement of social equity required
- ☐ Ordinance creating a new board requires detailed County Mayor's report for public hearing
- ☐ No committee review
- ☐ Applicable legislation requires more than a majority vote (i.e., 2/3's ____, 3/5's ____, unanimous ____,) to approve
- ☐ Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 8(0)(1)
3-6-18

RESOLUTION NO. R-227-18

RESOLUTION APPROVING THE CERTIFICATION OF FINANCIAL RESPONSIBILITY PURSUANT TO RULE 62-528.435(9) OF THE FLORIDA ADMINISTRATIVE CODE FOR THE OPERATION OF TWO CLASS I UNDERGROUND INJECTION WELLS AND ONE RELATED MONITORING WELL AND FOR THE CONSTRUCTION OF SEVEN ADDITIONAL CLASS I UNDERGROUND INJECTION WELLS AND FOUR RELATED MONITORING WELLS AT MIAMI-DADE COUNTY'S CENTRAL DISTRICT WASTEWATER TREATMENT PLANT; AND AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO EXECUTE SAME FOR AND ON BEHALF OF MIAMI-DADE COUNTY AND TO EXERCISE THE PROVISIONS CONTAINED THEREIN

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board hereby approves the Certification of Financial Responsibility, pursuant to Rule 62-528.435(9) of the Florida Administrative Code, as required by the State of Florida Department of Environmental Protection, in connection with the operation of two (2) Class I underground injection wells and one (1) related monitoring well and the construction of seven (7) new Class I underground injection wells and four (4) related monitoring wells at Miami-Dade County's Central District Wastewater Treatment Plant, in substantially the form attached to the accompanying memorandum as Exhibit A and made a part hereof. The Board also authorizes the County Mayor or County Mayor's designee to execute same for and on behalf of Miami-Dade County, Florida and to exercise the provisions contained therein.

The foregoing resolution was offered by Commissioner **Jean Monestime**, who moved its adoption. The motion was seconded by Commissioner **Rebeca Sosa** and upon being put to a vote, the vote was as follows:

Esteban L. Bovo, Jr., Chairman	aye
Audrey M. Edmonson, Vice Chairwoman	aye
Bruno A. Barreiro	aye
Jose "Pepe" Diaz	aye
Barbara J. Jordan	aye
Jean Monestime	aye
Rebeca Sosa	aye
Xavier L. Suarez	aye
Daniella Levine Cava	aye
Sally A. Heyman	aye
Joe A. Martinez	absent
Dennis C. Moss	aye
Sen. Javier D. Souto	absent

The Chairperson thereupon declared the resolution duly passed and adopted this 6th day of March, 2018. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this Resolution and the filing of this approval with the Clerk of the Board.



MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: **Christopher Agrippa**
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

SED

Sarah E. Davis



MEMORANDUM

(Revised)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: July 20, 2021

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No. 14(A)(19)

Please note any items checked.

- ☐ "3-Day Rule" for committees applicable if raised
- ☐ 6 weeks required between first reading and public hearing
- ☐ 4 weeks notification to municipal officials required prior to public hearing
- ☐ Decreases revenues or increases expenditures without balancing budget
- ☐ Budget required
- ☐ Statement of fiscal impact required
- ☐ Statement of social equity required
- ☐ Ordinance creating a new board requires detailed County Mayor's report for public hearing
- ☒ No committee review
- ☐ Applicable legislation requires more than a majority vote (i.e., 2/3's present ____, 2/3 membership ____, 3/5's ____, unanimous ____, CDMP 7 vote requirement per 2-116.1(3)(h) or (4)(c) ____, CDMP 2/3 vote requirement per 2-116.1(3)(h) or (4)(c) ____, or CDMP 9 vote requirement per 2-116.1(4)(c)(2) ____ to approve
- ☐ Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 14(A)(19)
7-20-21

RESOLUTION NO. R-775-21

RESOLUTION APPROVING THE CERTIFICATION OF FINANCIAL RESPONSIBILITY PURSUANT TO RULE 62-528.435(9) OF THE FLORIDA ADMINISTRATIVE CODE FOR THE OPERATION OF TWO ADDITIONAL CLASS I UNDERGROUND INJECTION WELLS AT MIAMI-DADE COUNTY'S CENTRAL DISTRICT WASTEWATER TREATMENT PLANT; AND AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO EXECUTE SAME FOR AND ON BEHALF OF MIAMI-DADE COUNTY AND TO EXERCISE THE PROVISIONS CONTAINED THEREIN

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board hereby approves the Certification of Financial Responsibility, pursuant to Rule 62-528.435(9) of the Florida Administrative Code, as required by the State of Florida Department of Environmental Protection, in connection with the operation of two (2) additional Class I underground injection wells at Miami-Dade County's Central District Wastewater Treatment Plant, in substantially the form attached to the accompanying memorandum as Exhibit "A" and made a part hereof. The Board also authorizes the County Mayor or County Mayor's designee to execute same for and on behalf of Miami-Dade County, Florida and to exercise the provisions contained therein.

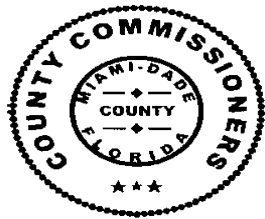
The foregoing resolution was offered by Commissioner **Sally A. Heyman** , who moved its adoption. The motion was seconded by Commissioner **Kionne L. McGhee** and upon being put to a vote, the vote was as follows:

Jose "Pepe" Diaz, Chairman	aye		
Oliver G. Gilbert, III, Vice-Chairman	aye		
Sen. René García	aye	Keon Hardemon	aye
Sally A. Heyman	aye	Danielle Cohen Higgins	aye
Eileen Higgins	aye	Joe A. Martinez	aye
Kionne L. McGhee	aye	Jean Monestime	aye
Raquel A. Regalado	aye	Rebeca Sosa	aye
Sen. Javier D. Souto	aye		

The Chairperson thereupon declared this resolution duly passed and adopted this 20th day of July, 2021. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK



By: Melissa Adames
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

SED

Sarah E. Davis