



Date: December 2, 2014  
To: Honorable Chairwoman Rebeca Sosa  
and Members, Board of County Commissioners  
From: Carlos A. Gimenez  
Mayor

Agenda Item No. 8(O)(2)

Subject: Resolution approving the Certification of Financial Responsibility pursuant to Rule 62-528.435(9) of the Florida Administrative Code for the operation of seventeen injection wells at the County's South District Wastewater Treatment Plant and eighteen related monitoring wells  
**Resolution No. R-1060-14**

**RECOMMENDATION**

It is recommended that the Board of County Commissioners (Board) approve the attached resolution that approves the Certification of Financial Responsibility (see Exhibit A) pursuant to 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 seventeen (17) Class I underground injection wells and eighteen (18) related monitoring wells owned by the County. This certification is a requirement of the Florida Department of Environmental Protection's permit application and approval process. The permit will allow the Miami-Dade Water and Sewer Department (WASD) to operate the seventeen (17) Class I underground injection wells at the South District Wastewater Treatment Plant, with the related monitoring wells which are an auxiliary requirement.

**SCOPE**

This item is of countywide significance as the County's wastewater system is interconnected. However, seventeen (17) Class I underground injection wells and seventeen (17) monitoring wells are located in District 8, Commissioner Lynda Bell, and one (1) monitoring well is located off-site in District 9, Commissioner Dennis C. Moss.

**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, Juan Carlos Arteaga, AIA, will oversee WASD's 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 County owns and operates seventeen (17) Class I injection wells and seventeen (17) monitoring wells at the South District Wastewater Treatment Plant. The injection wells are used to dispose of

wastewater effluent into an underground formation known as the Boulder Zone, which is approximately 3,000 feet below the ground surface. The monitoring wells are used to monitor ground water quality above the injection zone. One (1) other monitoring well, also owned by the County, is located off-site. This off-site monitoring well is being used to conduct a groundwater study of the Floridan aquifer. It is also part of Florida Department of Environmental Protection's permit requirement to operate the seventeen (17) Class I underground injection wells at the South District Wastewater Treatment Plant.

On July 24, 2014, WASD and the Florida Department of Environmental Protection began processing the application for the new operating permit for the injection and monitoring wells. The permit for both types of wells is issued for a five (5) year period. This permit is required to continue the operation of the seventeen (17) Class I underground injection wells and the eighteen (18) related monitoring wells.

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.



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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 seventeen (17) Class I underground injection wells and eighteen (18) 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 September 16, 2014, shall be reviewed on an annual basis and this obligation shall incorporate accumulated inflation costs. An annual adjustment exceeding ten (10) percent in any one year shall require submission of an updated certification form.

Facility where the wells are located and operated:

Facility Name: South District Wastewater Treatment Plant

Facility Address: 8950 SW 232 Street, Miami, FL, 33190

Facility Contact: Steve R. Kronheim

Phone Number: (786) 268-5603

Latitude/Longitude of Facility: N 25° 33' 07" / W 080° 20' 09"

DEP File No: 061787-026-042-UO/1M

Total Current Plugging and Abandonment Cost Estimate (all wells): \$ 5,825,584.00

List of facility injection and associated monitoring wells covered by this Certification:

Injection Well No. IW-1 and Monitoring Well No. FA-10

DEP/EPA Identification Number: FLS501305530  
Latitude/Longitude of Injection Well: N 25° 32' 40.9" / W 080° 20' 21.2"  
Current Plugging and Abandonment Cost Estimate: \$ 353,742

Injection Well No. IW-2 and Monitoring Well No. FA-11

DEP/EPA Identification Number: FLS501305531  
Latitude/Longitude of Injection Well: N 25° 32' 40.9" / W 080° 20' 13.0"  
Current Plugging and Abandonment Cost Estimate: \$ 337,665

Injection Well No. IW-3 and Monitoring Well No. FA-12

DEP/EPA Identification Number: FLS501305532  
Latitude/Longitude of Injection Well: N 25° 32' 40.9" / W 080° 20' 04.8"  
Current Plugging and Abandonment Cost Estimate: \$ 354,581

Injection Well No. IW-4 and Monitoring Well No. FA-13

DEP/EPA Identification Number: FLS501305533  
Latitude/Longitude of Injection Well: N 25° 32' 47.4" / W 080° 20' 01.5"  
Current Plugging and Abandonment Cost Estimate: \$ 355,011

Injection Well No. IW-5 and Monitoring Well No. BZ-1

DEP/EPA Identification Number: FLS501305534  
Latitude/Longitude of Injection Well: N 25° 32' 56.5" / W 080° 19' 57.2"  
Current Plugging and Abandonment Cost Estimate: \$ 262,236

Injection Well No. IW-6 and Monitoring Well No. FA-15

DEP/EPA Identification Number: FLS501305535  
Latitude/Longitude of Injection Well: N 25° 33' 03.0" / W 080° 20' 57.2"  
Current Plugging and Abandonment Cost Estimate: \$ 354,522

Injection Well No. IW-7 and Monitoring Well No. FA-16

DEP/EPA Identification Number: FLS501305536  
Latitude/Longitude of Injection Well: N 25° 33' 03.0" / W 080° 20' 05.0"  
Current Plugging and Abandonment Cost Estimate: \$ 330,553

Injection Well No. IW-8 and Monitoring Well No. FA-1

DEP/EPA Identification Number: FLS501305537  
Latitude/Longitude of Injection Well: N 25° 33' 03.0" / W 080° 20' 13.0"  
Current Plugging and Abandonment Cost Estimate: \$ 340,109

Injection Well No. IW-9 and Monitoring Well No. FA-2

DEP/EPA Identification Number: FLS501305538  
Latitude/Longitude of Injection Well: N 25° 32' 43.0" / W 080° 20' 30.4"  
Current Plugging and Abandonment Cost Estimate: \$ 338,097

Injection Well No. IW-10 and Monitoring Well No. FA-4

DEP/EPA Identification Number: FLS501307027  
Latitude/Longitude of Injection Well: N 25° 32' 47" / W 080° 20' 37"  
Current Plugging and Abandonment Cost Estimate: \$ 321,748

Injection Well No. IW-11 and Monitoring Well No. FA-14

DEP/EPA Identification Number: FLS501307028  
Latitude/Longitude of Injection Well: N 25° 32' 51" / W 080° 20' 44"  
Current Plugging and Abandonment Cost Estimate: \$ 346,249

Injection Well No. IW-12 and Monitoring Well No. FA-3

DEP/EPA Identification Number: FLS501307029  
Latitude/Longitude of Injection Well: N 25° 32' 56" / W 080° 20' 49"  
Current Plugging and Abandonment Cost Estimate: \$ 336,286

Injection Well No. IW-13 and Monitoring Well No. FA-5

DEP/EPA Identification Number: FLS501308034  
Latitude/Longitude of Injection Well: N 25° 33' 04.4" / W 080° 20' 49.8"  
Current Plugging and Abandonment Cost Estimate: \$ 342,902

Injection Well No. IW-14 and Monitoring Well No. FA-6

DEP/EPA Identification Number: FLS501308035  
Latitude/Longitude of Injection Well: N 25° 33' 04.4" / W 080° 20' 42.2"  
Current Plugging and Abandonment Cost Estimate: \$ 342,895

Injection Well No. IW-15 and Monitoring Well No. FA-7

DEP/EPA Identification Number: FLS501308036  
Latitude/Longitude of Injection Well: N 25° 33' 04.4" / W 080° 20' 34.3"  
Current Plugging and Abandonment Cost Estimate: \$ 342,856

Injection Well No. IW-16 and Monitoring Well No. FA-8

DEP/EPA Identification Number: FLS501308037  
Latitude/Longitude of Injection Well: N 25° 33' 04.4" / W 080° 20' 26.2"  
Current Plugging and Abandonment Cost Estimate: \$ 342,581

Injection Well No. IW-17 and Monitoring Well No. FA-9

DEP/EPA Identification Number: FLS501308038  
Latitude/Longitude of Injection Well: N 25° 33' 04.4" / W 080° 21' 18.6"  
Current Plugging and Abandonment Cost Estimate: \$ 343,845

Off - Site Monitoring Well No. CHI-1

DEP/EPA Identification Number: FLS5013  
Latitude/Longitude of Monitoring Well: N 25° 33' 51.8" / W 080° 21' 23.6"  
Current Plugging and Abandonment Cost Estimate: \$ 79,706

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:

*Carlos A. Gimenez* 9/30/14  
Office of the County Attorney

STATE OF FLORIDA  
COUNTY OF MIAMI-DADE

Sworn to (or affirmed) and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_ 2014,  
by \_\_\_\_\_ of the Miami-Dade County, who is personally  
known to me,

\_\_\_\_\_  
(SEAL)

## Exhibit B

### South District Wastewater Treatment Plant Estimated Costs of Plugging and Abandonment of Injection and Monitoring Wells

Injection Well No.	IW-1	IW-2	IW-3	IW-4
Casing O.D. (in)	24.000	24.000	24.000	24.000
Casing Thickness (in)	0.500	0.500	0.500	0.500
I.D. (in)	23.000	23.000	23.000	23.000
I.D. (ft)	1.917	1.917	1.917	1.917
Depth (ft)	2628	2628	2629	2664
Total Depth	3110	2824	3123	3133
Cement Vol. (cu.ft.) (includes 10 feet below casing)	7614	7614	7617	7718
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1779	701	1825	1730
1. Mobilization & Demobilization	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
2. Fill open hole with gravel				
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone + 20% for voids)	1779	701	1825	1730
Gravel at \$11.00 per cu.ft.	\$ 19,569.00	\$ 7,711.00	\$ 20,075.00	\$ 19,030.00
3. Fill casing from 10 ft. below bottom of casing to surface				
Cement Vol. (cu.ft.) (includes 10 feet below casing)	7614	7614	7617	7718
Neat Cement at \$16.50 per cu.ft.	\$ 125,631.00	\$ 125,631.00	\$ 125,681.00	\$ 127,347.00
4. 20 % Contingency	\$ 40,040.00	\$ 37,668.00	\$ 40,151.00	\$ 40,275.00
5. Engineer's Allowance Account	\$ 30,030.00	\$ 28,251.00	\$ 30,113.00	\$ 30,207.00
<b>Total</b>	<b>\$ 270,270.00</b>	<b>\$ 254,261.00</b>	<b>\$ 271,020.00</b>	<b>\$ 271,859.00</b>
	<b>FA-10</b>	<b>FA-11</b>	<b>FA-12</b>	<b>FA-13</b>
Monitoring Well No.	FA-10	FA-11	FA-12	FA-13
Upper Casing O.D.	14.000	14.000	14.000	14.000
Upper Casing Thickness (in)	0.375	0.375	0.375	0.375
Lower Casing O.D.	6.625	6.625	6.625	6.625
Lower Casing Thickness (in)	0.28	0.28	0.28	0.28
Upper Casing Depth (ft)	1490	1490	1495	1480
Upper Open Hole Depth (ft)	1592	1588	1597	1585
Lower Casing Depth (ft)	1790	1790	1790	1740
Lower Zone Open Hole Depth (ft)	1890	1890	1890	1845
Annular space volume (cu.ft.)	1143	1140	1147	1138
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	361	361	361	351
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	24	24	24	25
1. Mobilization & Demobilization	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00
2. Fill lower open hole with gravel				
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	24	24	24	25
Gravel at \$11.00 per cu.ft.	\$ 264.00	\$ 264.00	\$ 264.00	\$ 275.00
3. Fill lower casing with neat cement from 10 ft. below bottom of casing to surface				
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	361	361	361	351
Neat Cement at \$16.50 per cu.ft.	\$ 5,957.00	\$ 5,957.00	\$ 5,957.00	\$ 5,792.00
4. Fill Annular space with neat cement from bottom to surface				
Annular space volume (cu.ft.)	1143	1140	1147	1138
Neat Cement at \$16.50 per cu.ft.	\$ 18,860.00	\$ 18,810.00	\$ 18,926.00	\$ 18,777.00
5. 20 % Contingency	\$ 12,366.00	\$ 12,356.00	\$ 12,379.00	\$ 12,319.00
6. Engineer's Allowance Account	\$ 9,275.00	\$ 9,267.00	\$ 9,285.00	\$ 9,239.00
<b>Total</b>	<b>\$ 83,472.00</b>	<b>\$ 83,404.00</b>	<b>\$ 83,561.00</b>	<b>\$ 83,152.00</b>
<b>Injection Well No.</b>	<b>IW-1 &amp; FA-10</b>	<b>IW-2 &amp; FA-11</b>	<b>IW-3 &amp; FA-12</b>	<b>IW-4 &amp; FA-13</b>
<b>Wellhead Total for IW, FA, CHI wells</b>	<b>\$ 353,742.00</b>	<b>\$ 337,665.00</b>	<b>\$ 354,581.00</b>	<b>\$ 355,011.00</b>
<b>Grand Total for P&amp;A of Facility Wells</b>	<b>\$ 5,825,584.00</b>			

## Exhibit B

**South District Wastewater Treatment Plant  
Estimated Costs of Plugging and Abandonment of Injection and Monitoring Wells**

Injection Well No.	IW-5	IW-6	IW-7	IW-8
Casing O.D. (in)	20.000	24.000	24.000	24.000
Casing Thickness (in)	0.500	0.500	0.500	0.500
I.D. (in)	19.000	23.000	23.000	23.000
I.D. (ft)	1.583	1.917	1.917	1.917
Depth (ft)	2746	2740	2628	2420
Total Depth	3193	3112	3119	3112
Cement Vol. (cu.ft.) (includes 10 feet below casing)	5429	7937	7614	7014
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	1144	1365	1813	2571
1. Mobilization & Demobilization	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
2. Fill open hole with gravel				
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone + 20% for voids)	1144	1365	1813	2571
Gravel at \$11.00 per cu.ft.	\$ 12,584.00	\$ 15,015.00	\$ 19,943.00	\$ 28,281.00
3. Fill casing from 10 ft. below bottom of casing to surface				
Cement Vol. (cu.ft.) (includes 10 feet below casing)	5429	7937	7614	7014
Neat Cement at \$16.50 per cu.ft.	\$ 89,579.00	\$ 130,961.00	\$ 125,631.00	\$ 115,731.00
4. 20 % Contingency	\$ 31,433.00	\$ 40,195.00	\$ 40,115.00	\$ 39,802.00
5. Engineer's Allowance Account	\$ 23,574.00	\$ 30,146.00	\$ 30,086.00	\$ 29,852.00
<b>Total</b>	<b>\$ 212,170.00</b>	<b>\$ 271,317.00</b>	<b>\$ 270,775.00</b>	<b>\$ 268,666.00</b>
<b>Monitoring Well No.</b>	<b>BZ-1</b>	<b>FA-15</b>	<b>FA-16</b>	<b>FA-1</b>
Upper Casing O.D.	2.000	14.000	8.625	12.750
Upper Casing Thickness (in)	0.250	0.375	0.500	0.375
Lower Casing O.D.	2.000	6.625	4.500	6.625
Lower Casing Thickness (in)	0.25	0.28	0.5	0.28
Upper Casing Depth (ft)	1005	1490	1490	980
Upper Open Hole Depth (ft)	1037	1575	1590	1090
Lower Casing Depth (ft)	1577	1790	1790	1840
Lower Zone Open Hole Depth (ft)	1664	1890	1890	1927
Annular space volume (cu.ft.)	0	1131	329	595
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	19	361	120	371
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	2	24	11	21
1. Mobilization & Demobilization	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00
2. Fill lower open hole with gravel				
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	2	24	11	21
Gravel at \$11.00 per cu.ft.	\$ 22.00	\$ 264.00	\$ 121.00	\$ 231.00
3. Fill lower casing with neat cement from 10 ft. below bottom of casing to surface				
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	19	361	120	371
Neat Cement at \$16.50 per cu.ft.	\$ 314.00	\$ 5,957.00	\$ 1,980.00	\$ 6,122.00
4. Fill Annular space with neat cement from bottom to surface				
Annular space volume (cu.ft.)	0	1131	329	595
Neat Cement at \$16.50 per cu.ft.	\$ -	\$ 18,662.00	\$ 5,429.00	\$ 9,818.00
5. 20 % Contingency	\$ 7,417.00	\$ 12,327.00	\$ 8,856.00	\$ 10,584.00
6. Engineer's Allowance Account	\$ 5,563.00	\$ 9,245.00	\$ 6,642.00	\$ 7,938.00
<b>Total</b>	<b>\$ 50,066.00</b>	<b>\$ 83,205.00</b>	<b>\$ 59,778.00</b>	<b>\$ 71,443.00</b>
<b>Injection Well No.</b>	<b>IW-5 &amp; BZ</b>	<b>IW-6 &amp; FA-15</b>	<b>IW-7 &amp; FA-16</b>	<b>IW-8 &amp; FA-1</b>
<b>Wellhead Total for IW, FA, CHI wells</b>	<b>\$ 262,236.00</b>	<b>\$ 354,522.00</b>	<b>\$ 330,553.00</b>	<b>\$ 340,109.00</b>

## Exhibit B

### South District Wastewater Treatment Plant Estimated Costs of Plugging and Abandonment of Injection and Monitoring Wells

Injection Well No.	IW-9	IW-10	IW-11	IW-12
Casing O.D. (in)	24.000	24.000	24.000	24.000
Casing Thickness (in)	0.500	0.500	0.500	0.500
I.D. (in)	23.000	23.000	23.000	23.000
I.D. (ft)	1.917	1.917	1.917	1.917
Depth (ft)	2418	2425	2428	2392
Total Depth	3111	3028	3015	3060
Cement Vol. (cu.ft.) (includes 10 feet below casing)	7008	7028	7037	6933
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	2575	2236	2175	2481
1. Mobilization & Demobilization	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
2. Fill open hole with gravel				
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone + 20% for voids)	2575	2236	2175	2481
Gravel at \$11.00 per cu.ft.	\$ 28,325.00	\$ 24,596.00	\$ 23,925.00	\$ 27,291.00
3. Fill casing from 10 ft. below bottom of casing to surface				
Cement Vol. (cu.ft.) (includes 10 feet below casing)	7008	7028	7037	6933
Neat Cement at \$16.50 per cu.ft.	\$ 115,632.00	\$ 115,962.00	\$ 116,111.00	\$ 114,395.00
4. 20 % Contingency	\$ 39,791.00	\$ 39,112.00	\$ 39,007.00	\$ 39,337.00
5. Engineer's Allowance Account	\$ 29,844.00	\$ 29,334.00	\$ 29,255.00	\$ 29,503.00
<b>Total</b>	<b>\$ 268,592.00</b>	<b>\$ 264,004.00</b>	<b>\$ 263,298.00</b>	<b>\$ 265,526.00</b>
<b>Monitoring Well No.</b>	<b>FA-2</b>	<b>FA-4</b>	<b>FA-14</b>	<b>FA-3</b>
Upper Casing O.D.	12.750	0.000	0.000	12.750
Upper Casing Thickness (in)	0.375	0.000	0.000	0.375
Lower Casing O.D.	6.625	6.625	14.000	6.625
Lower Casing Thickness (in)	0.28	0.28	0.375	0.280
Upper Casing Depth (ft)	980	0	0	981
Upper Open Hole Depth (ft)	1020	0	0	1050
Lower Casing Depth (ft)	1645	1702	1490	1770
Lower Zone Open Hole Depth (ft)	1672	1840	1575	1892
Annular space volume (cu.ft.)	557	0	0	573
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	332	343	1436	357
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	6	33	91	29
1. Mobilization & Demobilization	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00
2. Fill lower open hole with gravel				
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	6	33	91	29
Gravel at \$11.00 per cu.ft.	\$ 66.00	\$ 363.00	\$ 1,001.00	\$ 319.00
3. Fill lower casing with neat cement from 10 ft. below bottom of casing to surface				
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	332	343	1436	357
Neat Cement at \$16.50 per cu.ft.	\$ 5,478.00	\$ 5,660.00	\$ 23,694.00	\$ 5,891.00
4. Fill Annular space with neat cement from bottom to surface				
Annular space volume (cu.ft.)	557	0	0	573
Neat Cement at \$16.50 per cu.ft.	\$ 9,191.00	\$ -	\$ -	\$ 9,455.00
5. 20 % Contingency	\$ 10,297.00	\$ 8,555.00	\$ 12,289.00	\$ 10,483.00
6. Engineer's Allowance Account	\$ 7,723.00	\$ 6,416.00	\$ 9,217.00	\$ 7,862.00
<b>Total</b>	<b>\$ 69,505.00</b>	<b>\$ 57,744.00</b>	<b>\$ 82,951.00</b>	<b>\$ 70,760.00</b>
<b>Injection Well No.</b>	<b>IW-9 &amp; FA-2</b>	<b>IW-10 &amp; FA-4</b>	<b>IW-11 &amp; FA-14</b>	<b>IW-12 &amp; FA-3</b>
<b>Wellhead Total for IW, FA, CHI wells</b>	<b>\$ 338,097.00</b>	<b>\$ 321,748.00</b>	<b>\$ 346,249.00</b>	<b>\$ 336,286.00</b>

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## Exhibit B

**South District Wastewater Treatment Plant  
Estimated Costs of Plugging and Abandonment of Injection and Monitoring Wells**

Injection Well No.	IW-13	IW-14	IW-15	IW-16
Casing O.D. (in)	24.000	24.000	24.000	24.000
Casing Thickness (in)	0.500	0.500	0.500	0.500
I.D. (in)	23.000	23.000	23.000	23.000
I.D. (ft)	1.917	1.917	1.917	1.917
Depth (ft)	2400	2403	2410	2420
Total Depth	3060	3060	3060	3054
Cement Vol. (cu.ft.) (includes 10 feet below casing)	6956	6965	6985	7014
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	2450	2439	2413	2352
1. Mobilization & Demobilization	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00	\$ 55,000.00
2. Fill open hole with gravel				
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone + 20% for voids)	2450	2439	2413	2352
Gravel at \$11.00 per cu.ft.	\$ 26,950.00	\$ 26,829.00	\$ 26,543.00	\$ 25,872.00
3. Fill casing from 10 ft. below bottom of casing to surface				
Cement Vol. (cu.ft.) (includes 10 feet below casing)	6956	6965	6985	7014
Neat Cement at \$16.50 per cu.ft.	\$ 114,774.00	\$ 114,923.00	\$ 115,253.00	\$ 115,731.00
4. 20 % Contingency	\$ 39,345.00	\$ 39,350.00	\$ 39,359.00	\$ 39,321.00
5. Engineer's Allowance Account	\$ 29,509.00	\$ 29,513.00	\$ 29,519.00	\$ 29,490.00
<b>Total</b>	<b>\$ 265,578.00</b>	<b>\$ 265,615.00</b>	<b>\$ 265,674.00</b>	<b>\$ 265,414.00</b>
<b>Monitoring Well No.</b>	<b>FA-5</b>	<b>FA-6</b>	<b>FA-7</b>	<b>FA-8</b>
Upper Casing O.D.	12.750	12.750	12.750	12.750
Upper Casing Thickness (in)	0.375	0.375	0.375	0.375
Lower Casing O.D.	6.625	6.625	6.625	6.625
Lower Casing Thickness (in)	0.280	0.280	0.280	0.280
Upper Casing Depth (ft)	1490	1490	1488	1490
Upper Open Hole Depth (ft)	1588	1584	1580	1575
Lower Casing Depth (ft)	1790	1790	1805	1790
Lower Zone Open Hole Depth (ft)	1890	1890	1872	1890
Annular space volume (cu.ft.)	867	865	863	860
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	361	361	364	361
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	24	24	16	24
1. Mobilization & Demobilization	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00	\$ 36,750.00
2. Fill lower open hole with gravel				
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	24	24	16	24
Gravel at \$11.00 per cu.ft.	\$ 264.00	\$ 264.00	\$ 176.00	\$ 264.00
3. Fill lower casing with neat cement from 10 ft. below bottom of casing to surface				
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	361	361	364	361
Neat Cement at \$16.50 per cu.ft.	\$ 5,957.00	\$ 5,957.00	\$ 6,006.00	\$ 5,957.00
4. Fill Annular space with neat cement from bottom to surface				
Annular space volume (cu.ft.)	867	865	863	860
Neat Cement at \$16.50 per cu.ft.	\$ 14,306.00	\$ 14,273.00	\$ 14,240.00	\$ 14,190.00
5. 20 % Contingency	\$ 11,455.00	\$ 11,449.00	\$ 11,434.00	\$ 11,432.00
6. Engineer's Allowance Account	\$ 8,592.00	\$ 8,587.00	\$ 8,576.00	\$ 8,574.00
<b>Total</b>	<b>\$ 77,324.00</b>	<b>\$ 77,280.00</b>	<b>\$ 77,182.00</b>	<b>\$ 77,167.00</b>
<b>Injection Well No.</b>	<b>IW-13 &amp; FA-5</b>	<b>IW-14 FA-6</b>	<b>IW-15 &amp; FA-7</b>	<b>IW-16 &amp; FA-8</b>
<b>Wellhead Total for IW, FA, CHI wells</b>	<b>\$ 342,902.00</b>	<b>\$ 342,895.00</b>	<b>\$ 342,856.00</b>	<b>\$ 342,581.00</b>

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## Exhibit B

### South District Wastewater Treatment Plant Estimated Costs of Plugging and Abandonment of Injection and Monitoring Wells

Injection Well No.	IW-17	Off-Site Monitoring
Casing O.D. (in)	24.000	
Casing Thickness (in)	0.500	
I.D. (in)	23.000	
I.D. (ft)	1.917	
Depth (ft)	2410	
Total Depth	3076	
Cement Vol. (cu.ft.) (includes 10 feet below casing)	6985	
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone)	2473	
1. Mobilization & Demobilization	\$ 55,000.00	
2. Fill open hole with gravel		
Open Hole Vol. (cu.ft.) (Assumes final casing diameter for bolder zone + 20% for voids)	2473	
Gravel at \$11.00 per cu.ft.	\$ 27,203.00	
3. Fill casing from 10 ft. below bottom of casing to surface		
Cement Vol. (cu.ft.) (includes 10 feet below casing)	6985	
Neat Cement at \$16.50 per cu.ft.	\$ 115,253.00	
4. 20 % Contingency	\$ 39,491.00	
5. Engineer's Allowance Account	\$ 29,618.00	
<b>Total</b>	<b>\$ 266,565.00</b>	
<b>Monitoring Well No.</b>	<b>FA-9</b>	<b>CHI</b>
Upper Casing O.D.	12.750	14.000
Upper Casing Thickness (in)	0.375	0.375
Lower Casing O.D.	6.625	8.625
Lower Casing Thickness (in)	0.280	0.500
Upper Casing Depth (ft)	1490	1402
Upper Open Hole Depth (ft)	1587	1431
Lower Casing Depth (ft)	1780	1710
Lower Zone Open Hole Depth (ft)	1880	1770
Annular space volume (cu.ft.)	867	790
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	359	545
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	24	24
1. Mobilization & Demobilization	\$ 36,750.00	\$ 36,750.00
2. Fill lower open hole with gravel		
Lower Open Hole Vol. (cu.ft.) (Assumes inner casing dia.)	24	24
Gravel at \$11.00 per cu.ft.	\$ 264.00	\$ 264.00
3. Fill lower casing with neat cement from 10 ft. below bottom of casing to surface		
Lower Cement volume (cu.ft.) (includes 10 feet below casing)	359	545
Neat Cement at \$16.50 per cu.ft.	\$ 5,924.00	\$ 8,993.00
4. Fill Annular space with neat cement from bottom to surface		
Annular space volume (cu.ft.)	867	790
Neat Cement at \$16.50 per cu.ft.	\$ 14,306.00	\$ 13,035.00
5. 20 % Contingency	\$ 11,449.00	\$ 11,808.00
6. Engineer's Allowance Account	\$ 8,587.00	\$ 8,856.00
<b>Total</b>	<b>\$ 77,280.00</b>	<b>\$ 79,706.00</b>
<b>Injection Well No.</b>	<b>IW-17 &amp; FA-9</b>	<b>CHI</b>
<b>Wellhead Total for IW, FA, CHI wells</b>	<b>\$ 343,845.00</b>	<b>\$ 79,706.00</b>



**MEMORANDUM**  
(Revised)

**TO:** Honorable Chairwoman Rebeca Sosa  
and Members, Board of County Commissioners

**DATE:** December 2, 2014

**FROM:**   
R. A. Cuevas, Jr.  
County Attorney

**SUBJECT:** Agenda Item No. 8(O)(2)

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
- 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(O)(2)  
12-2-14

RESOLUTION NO. R-1060-14

RESOLUTION APPROVING THE CERTIFICATION OF FINANCIAL RESPONSIBILITY PURSUANT TO RULE 62-528.435(9) OF THE FLORIDA ADMINISTRATIVE CODE, FOR THE OPERATION OF SEVENTEEN CLASS I UNDERGROUND INJECTION WELLS AT MIAMI-DADE COUNTY'S SOUTH DISTRICT WASTEWATER TREATMENT PLANT AND EIGHTEEN RELATED MONITORING WELLS; AND AUTHORIZING THE COUNTY MAYOR OR 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 seventeen (17) Class I underground injection wells at Miami-Dade County's South District Wastewater Treatment Plant and eighteen (18) related monitoring wells, 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 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 **Rebeca Sosa** and upon being put to a vote, the vote was as follows:

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

The Chairperson thereupon declared the resolution duly passed and adopted this 2<sup>nd</sup> day of December, 2014. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this 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

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