



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
WATER USE INDIVIDUAL PERMIT**

APPLICATION NO: 140627-12

PERMIT NUMBER: 13-00017-W

DATE ISSUED: February 9, 2015

EXPIRATION DATE: February 9, 2035

PERMITTEE: MIAMI-DADE WATER AND SEWER
DEPARTMENT
P O BOX 330316
MIAMI, FL 33233-0316

PROJECT NAME: MIAMI-DADE CONSOLIDATED PWS

PROJECT LOCATION: Miami-Dade County, SEE ATTACHED FOR SECTIONS, TOWNSHIPS
AND RANGES

PROJECT DESCRIPTION/AUTHORIZING:

The continued use of groundwater from the Upper Floridan aquifer and Biscayne aquifer for Public water supply for the MDWASD Service Area serving 2,642,929 persons in the year 2033 with an average finished water per capita use rate of 137.2 gallons per day per person and a maximum monthly to average monthly pumping ration of 1.05:1 with an annual allocation of 140,915.50 million gallons.

This is to notify you of South Florida Water Management District's (District) agency action concerning Permit Application Number 140627-12, received June 27, 2014. This action is taken pursuant to Chapter 373, Part II, Florida Statutes (F.S.), Rule 40E-1.603 and Chapter 40E-2, Florida Administrative Code (F.A.C). Based on the information provided, District rules have been adhered to and a Water Use Individual Permit is in effect for this project subject to:

1. Not receiving a filed request for an administrative hearing pursuant to Section 120.57 and Section 120.569 (F.S.), or request a judicial review pursuant Section 120.68, F.S.; and
2. The attached 57 permit conditions.
3. The attached 37 exhibits.

By acceptance and utilization of the water authorized under this permit, the Permittee agrees to hold and save the District and its successors harmless from any and all damages, claims or liabilities that may arise by reason of the construction, maintenance or use of activities authorized by this permit. Should you object to the permit, please refer to the attached "Notice of Rights" that addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Should you wish to object to the proposed agency action or file a petition or request, please provide written objections, petitions, requests and/or waivers to the District, attention of Office of the District Clerk, South Florida Water Management District, Post Office Box 24680, West Palm Beach, FL 33416-4680.

CERTIFICATION OF SERVICE

I HEREBY CERTIFY THAT this written notice has been mailed or electronically transmitted to the Permittee (and the persons listed in the attached distribution list) this 10th day of February, 2015, in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (my.sfwmd.gov/ePermitting).

BY:


JUANITA BOZEMAN

DEPUTY CLERK, SOUTH FLORIDA WATER MANAGEMENT DISTRICT

SPECIAL PERMIT CONDITIONS

1. This permit is issued to:
MIAMI-DADE WATER AND SEWER DEPARTMENT
P O BOX 330316
MIAMI, FL 33233-0316

2. This permit shall expire on February 9, 2035.

3. Use classification is:

Public Water Supply
Aquifer Storage And Recovery

4. Source classification is:

Groundwater from:
Biscayne Aquifer
Upper Floridan Aquifer

5. Allocation:

Total annual allocation is 140,915.50 million gallons (MG). (386.07 MGD)

Total maximum monthly allocation is 12,330.11 million gallons (MG).

Allocation from a specific source (aquifer, waterbody, facility, or facility group):

Maximum annual allocation from Upper Floridan Aquifer shall not exceed 13,348.05 million gallons (MG). (36.60 MGD).

Maximum annual allocation from Biscayne Aquifer shall not exceed 127,567.50 million gallons (MG). (349.50 MGD).

Maximum monthly allocation from Upper Floridan Aquifer shall not exceed 1,167.95 million gallons (MG).

Maximum monthly allocation from Biscayne Aquifer shall not exceed 11,162.16 million gallons (MG).

These allocations represent the amount of water required to meet the water demands as a result of a rainfall deficit during a drought with the probability of recurring one year in ten. The Permittee shall not exceed these allocations in hydrologic conditions less than a 1-in-10 year drought event. Compliance with the annual allocation is based on the quantity withdrawn over a 12-month time period. Compliance with the maximum monthly allocation is based on the greatest quantity withdrawn in any single month. The annual allocation expressed in GPD or MGD is for

informational purposes only.

If the rainfall deficit is more severe than that expected to recur once every ten years, the withdrawals shall not exceed that amount necessary to continue to meet the reasonable-beneficial demands under such conditions, provided no harm to the water resources occur and:

1. All other conditions of the permit are met; and

2. The withdrawal is otherwise consistent with applicable declared Water Shortage Orders in effect pursuant to Chapter 40E-21, F.A.C.

6. Withdrawal facilities:

Groundwater - Proposed:

- 1 - 24" X 50' X 2800 GPM Well Cased To 45 Feet
- 7 - 24" X 1200' X 2430 GPM Wells Cased To 1100 Feet
- 1 - 24" X 50' X 1400 GPM Well Cased To 45 Feet
- 3 - 24" X 72' X 1400 GPM Wells Cased To 45 Feet
- 8 - 17" X 1490' X 1400 GPM Wells Cased To 1080 Feet

Groundwater - Existing:

- 2 - 24" X 100' X 7500 GPM Wells Cased To 50 Feet
- 3 - 48" X 88' X 7500 GPM Wells Cased To 33 Feet
- 5 - 17" X 1490' X 1400 GPM Wells Cased To 1080 Feet
- 1 - 4" X 74' X 0 GPM Well Cased To 63.5 Feet
- 1 - 18" X 65' X 1500 GPM Well Cased To 50 Feet
- 20 - 14" X 115' X 2500 GPM Wells Cased To 80 Feet
- 4 - 24" X 100' X 4900 GPM Wells Cased To 35 Feet
- 10 - 48" X 80' X 10420 GPM Wells Cased To 46 Feet
- 1 - 12" X 40' X 800 GPM Well Cased To 35 Feet
- 1 - 42" X 68' X 10000 GPM Well Cased To 54 Feet
- 1 - 6" X 30' X 400 GPM Well Cased To 25 Feet
- 1 - 16" X 50' X 1600 GPM Well Cased To 40 Feet
- 1 - 30" X 115' X 4170 GPM Well Cased To 80 Feet
- 1 - 18" X 66' X 1500 GPM Well Cased To 53 Feet
- 1 - 14" X 115' X 3800 GPM Well Cased To 80 Feet
- 1 - 30" X 1250' X 3500 GPM Well Cased To 845 Feet
- 6 - 42" X 107' X 7000 GPM Wells Cased To 66 Feet
- 1 - 24" X 70' X 3470 GPM Well Cased To 35 Feet
- 7 - 16" X 100' X 4170 GPM Wells Cased To 40 Feet
- 2 - 24" X 70' X 6945 GPM Wells Cased To 35 Feet
- 1 - 42" X 68' X 8500 GPM Well Cased To 60 Feet
- 1 - 17" X 1490' X 1400 GPM Well Cased To 1150 Feet

4 - 40" X 100' X 10420 GPM Wells Cased To 57 Feet
1 - 30" X 1210' X 3500 GPM Well Cased To 835 Feet
1 - 42" X 68' X 8500 GPM Well Cased To 54 Feet
1 - 18" X 55' X 1500 GPM Well Cased To 45 Feet
1 - 42" X 107' X 7000 GPM Well Cased To 69 Feet
4 - 24" X 108' X 8300 GPM Wells Cased To 50 Feet
2 - 12" X 40' X 1600 GPM Wells Cased To 35 Feet
4 - 24" X 104' X 6940 GPM Wells Cased To 54 Feet
1 - 12" X 35' X 1200 GPM Well Cased To 30 Feet
1 - 48" X 80' X 10416.67 GPM Well Cased To 46 Feet
1 - 12" X 35' X 800 GPM Well Cased To 30 Feet
1 - 30" X 115' X 2500 GPM Well Cased To 80 Feet
1 - 42" X 68' X 10000 GPM Well Cased To 60 Feet
1 - 18" X 55' X 1500 GPM Well Cased To 42 Feet
6 - 20" X 100' X 4900 GPM Wells Cased To 40 Feet
1 - 16" X 100' X 7500 GPM Well Cased To 40 Feet
1 - 18" X 50' X 500 GPM Well Cased To 40 Feet
1 - 30" X 1200' X 3500 GPM Well Cased To 765 Feet
1 - " X 60' X 0 GPM Well Cased To 55 Feet
1 - 30" X 1300' X 3500 GPM Well Cased To 850 Feet
1 - 30" X 1200' X 3500 GPM Well Cased To 760 Feet

7. The Permittee shall submit all data as required by the implementation schedule for each of the permit conditions to: SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, MSC 9611, P.O. Box 24680, West Palm Beach, FL 33416-4680.
8. The Permittee must submit the appropriate application form incorporated by reference in Rule 40E-2.101, F.A.C., to the District prior to the permit expiration date in order to continue the use of water.
9. The Permittee shall secure a well construction permit prior to construction, repair, or abandonment of all wells, as described in Chapter 40E-3, F.A.C.
10. Permittees, who are dependent on other sources of water supply such as reclaimed water or water sale agreements to meet a portion of their demands, shall include the monthly volumes from all other sources in the report to the District, unless the use of those sources is reported to another state agency, in which case the District will obtain the water use information from said agency. The water accounting method and means of calibration shall be stated on each report.
11. Prior to any withdrawals at the project, the Permittee shall provide the results of the calibration testing of the identified water accounting method(s) and equip all existing and proposed withdrawal facilities with approved water use accounting method(s) pursuant to Subsection 4.1.1 of the Applicant's Handbook for Water Use Permit Applications.

12. Every five years from the date of last calibration, the Permittee shall submit re-calibration data for each withdrawal facility.
13. Monthly withdrawals for each withdrawal facility shall be reported to the District semi-annually. The water accounting method and means of calibration shall be stated on each report.
14. The Permittee shall notify the District within 30 days of any change in service area boundary that results in a change in demand that affects its permitted allocation. The allocation shall be modified to effectuate such change.
15. If at any time there is an indication that the well casing, valves, or controls leak or have become inoperative, repairs or replacement shall be made to restore the system to an operating condition. Failure to make such repairs shall be cause for filling and abandoning the well, in accordance with procedures outlined in Chapter 40E-3, F.A.C.
16. The Permittee shall maintain an accurate flow meter at the intake of the water treatment plant for the purpose of measuring daily inflow of water.

Permittee shall maintain a calibrated flow meter(s) at the intake (raw water) and discharge (treated water) points within the Hialeah/Preston, Alexander Orr, and proposed Hialeah RO and South Miami Heights water treatment plants for the purpose of measuring treatment losses and shall submit monthly data semi-annually as required pursuant to Special Condition 13.

17. The Standard Water Conservation Plan described in Subsection 2.3.2.F.1.a of the Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District and the Staff Report, must be implemented in accordance with the approved implementation schedule described in the following exhibit:

The Water Conservation Plan is contained in Exhibit 18. The permittee shall submit an annual report covering water conservation activities during the prior calendar year by April 15 of each year describing water conservation activities for the year including expenditures, projects undertaken and estimated water savings.

18. The Permittee shall notify the District within 30 days of entering into an inter-local agreement, contract, or other similar instrument to deliver or receive water outside of its service area or to serve a demand not identified to determine the allocation described in this permit. A copy of such agreement shall be provided to the District. The monthly volume of water delivered and/or received via each inter-local agreement, contract, or other similar instrument shall be submitted to the District at the same reporting frequency as the withdrawals for each withdrawal facility required in this permit.
19. The Permittee shall implement the wellfield operating plan submitted in support of the permit application, as described in the District staff report.

See Exhibit 10

20. The Permittee shall determine unaccounted-for distribution system losses. Losses shall be determined for the entire distribution system on a monthly basis. Permittee shall define the manner in which unaccounted-for losses are calculated. Reports shall be submitted to the District on a yearly basis and are due by April 30th of each year.

In the event that the annual unaccounted-for distribution system losses, as defined by Section 2.3.2.F.2.c, of the Applicants Handbook for Water Use Permit Applications [AH], exceeds 10 percent, the permittee shall include in the annual report a description of additional actions which will be implemented the following year(s) to reduce the losses to less than ten percent.

21. Public water utilities that control, either directly or indirectly, a wastewater treatment plant, and which have determined pursuant to Section 403.064, F.S., that use of reclaimed water is feasible, must provide the District with annual updates of the following information: 1) the status of distribution system construction, including location and capacity of lines; 2) a summary of uncommitted supplies for the next year; 3) copies of any new or amended local mandatory reclaimed water reuse zone ordinances; and 4) a list of end-users who have contracted to receive reclaimed water and the agreed upon quantity of water to be delivered.
22. The Permittee shall maintain an accurate flow meter at the point of discharge from the treatment plant for the purpose of measuring the daily flow of water.

Permittee shall maintain a calibrated flow meter(s) at the intake (raw water) and discharge (treated water) points within the Hialeah/Preston, Alexander Orr, and proposed Hialeah RO and South Miami Heights water treatment plants for the purpose of measuring treatment losses and shall submit monthly data semi-annually as required pursuant to Special Condition 13.

23. Pursuant to Section 373.236(4), F.S., every ten years from the date of permit issuance, the Permittee shall submit a water use compliance report for review and approval by District Staff to SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, MSC 9611, P.O. Box 24680, West Palm Beach, FL 33416-4680.
 - (A) The results of a water conservation audit that documents the efficiency of water use on the project site using data produced from an onsite evaluation conducted. In the event that the audit indicates additional water conservation is appropriate or the per capita use rate authorized in the permit is exceeded, the permittee shall propose and implement specific actions to reduce the water use to acceptable levels within timeframes proposed by the permittee and approved by the District.
 - (B) A comparison of the permitted allocation and the allocation that would apply to the project based on current District allocation rules and updated population and per capita use rates. In the event the permit allocation is greater than the allocation provided for under District rule, the permittee shall apply for a letter modification to reduce the allocation consistent with District rules and the updated population and per capita use rates to the extent they are considered by the

District to be indicative of long term trends in the population and per capita use rates over the permit duration. In the event that the permit allocation is less than allowable under District rule, the permittee shall apply for a modification of the permit to increase the allocation if the permittee intends to utilize an additional allocation, or modify its operation to comply with the existing conditions of the permit.

3. Summary of the current and previous nine years progress reports for implementation of the Alternative Water Supply Plan and any modifications necessary to continue to meet the Plan requirements and conditions for issuance.
4. Information demonstrating that the conditions for issuance of the permit are being complied with, pursuant to Special Condition 45 and Section 373.236, F.S.
5. Updates or amendments to the County's reuse plan.
24. The Permittee shall provide annual status reports to the District that summarizes the Aquifer Storage and Recovery cycle testing activities. Reports shall be submitted to the District on a yearly basis and are due by April 30th of each year.
25. The Permittee shall submit to the District an updated "Summary of Groundwater (Well) Facilities" table ("Section IV - Sources of Water", Water Use Permit Application Form 1379) within 90 days of completion of the proposed wells identifying the actual total and cased depths, pump manufacturer and model numbers, pump types, intake depths and type of meters.
26. The permittee shall operate surface water control structure known as the Mid-canal structure and bridge in accordance with the approved operational plan included in Exhibit 22. In addition, whenever this structure is opened for the purpose of raising water in the Wellfield Protection Canal down stream of the structure, the upstream structure that delivers water from the L-30 canal shall be opened in a manner to deliver equal volumes to those passed through the Mid-canal structure and bridge. The permittee shall submit operation and flow data logs regarding both structures to the District semi-annually.
27. The Permittee is authorized to exercise the emergency wells at the Medley Wellfield for a total of two hours per month as needed for bacterial clearance and pump maintenance. Operation of the emergency wells at the Medley Wellfield for more than this amount shall require prior approval from SFWMD. Pumpage data shall be collected and report in accordance with Special Condition 13.
28. No more than 15 MGD shall be withdrawn from the West Biscayne aquifer Wellfield on any given day.
29. No more than 25,550 MGY shall be withdrawn during any 12 month consecutive period from the combined Hialeah, Preston, Medley and Miami Springs Biscayne aquifer wellfields.

30. No more than 7,993 MGY shall be withdrawn during any 12 month consecutive period from the Snapper Creek Wellfield.
31. No more than 39,931 MGY shall be withdrawn during any 12 month consecutive period from the Southwest Biscayne aquifer Wellfield.
32. No more than 67,999 MGY shall be withdrawn during any 12 month consecutive period from the combined West, Southwest Snapper Creek and Alexander Orr Biscayne aquifer wellfields.
33. No more than 1,095 MGY shall be withdrawn during any 12 month consecutive period from the South Miami Heights Wellfield.
34. No more than 1,752 MGY shall be withdrawn during any 12 month consecutive period from the combined Everglades Labor Camp and Newton wellfields.
35. No more than 1,571 MGY shall be withdrawn during any 12 month consecutive period from the combined Elevated Tank, Leisure City and Naranja wellfields.
36. The Permittee shall continue to submit monitoring data in accordance with the approved water level monitoring program for this project. The existing monitoring program is described in Exhibits 30 and 32B.
37. The Permittee shall continue to submit monitoring data in accordance with the approved saline water intrusion monitoring program for this project.
See exhibits 28A and 32B for a list of monitor wells and required sampling schedule.

The permittee shall submit annual Monitoring Program summary reports. The annual report will summarize the status of the project to update the salt front and install new monitor wells.

38. Within six months of permit issuance, an executed large user water agreement with the City of Hialeah shall be submitted to the District. In the event that the final agreement is for volumes less than those used in the formulation of the allocations in this permit, the allocations shall be reduced through a letter modification.
39. The permittee shall update the District on the status of reuse projects in Exhibit 14 on an annual basis.
40. The permittee will develop alternative water supplies in accordance with the schedules described in Exhibit 13.

The permittee will provide annual updates of the status of all alternative water supply projects (per

the timeframes contained in Special Condition 44). The status report shall include work completed to date, expenditures and any anticipated changes in the timelines.

41. In the event that a milestone specified in the alternative water supply schedule and plan contained in Exhibit 13 is going to be missed, the permittee shall notify the Executive Director of the District in writing explaining the nature of the delay, actions taken to bring the project back on schedule and an assessment of the impact the delay would have on the rates of withdrawals from the Everglades water bodies and associated canals as defined in SFWMD consumptive use permitting rules. The District will evaluate the situation and take actions as appropriate which could include: a.) granting an extension of time to complete the project (if the delay is minor and doesn't affect the Everglades Waterbodies or otherwise violates permit conditions), b.) take enforcement actions including consent orders and penalties, c.) modify allocations contained in this permit from the Biscayne aquifer including capping withdrawal rates until the alternative water supply project(s) are completed (in cases where the delay would result in violations of permit conditions) or d.) working with the Department of Community Affairs to limit increase demands for water until the alternative water supply project is completed.
42. For rehydration of Biscayne Coastal Wetlands, in consultation with the District, the FDEP and Biscayne Bay National Park, upon completion of the pilot testing program, the parties shall agree on the water quality treatment required and the feasibility, as defined in Section 2.2.4 of the Applicants Handbook for Water Use Permit Applications, of this project on or before April 15, 2015. Extension of this deadline may be issued in writing by the District upon demonstration of good cause such as events beyond the control of the permittee or after consideration of the results/data collected, the District determines that additional testing is necessary. In determining the water quality needed, the parties will consider State and Federal water quality discharge standards, the volume and timing of water to be delivered to Biscayne Bay and the location of delivery. In the event the parties do not reach agreement on the feasibility by April 15, 2015, the Permittee shall begin development of an alternate reuse project from the South District wastewater facility and shall provide the District with a proposal for an alternate project including a conceptual design and schedule for implementation on or before March 15, 2016.
43. The permittee may request temporary authorization from the District to capture and store stormwater via withdrawals from the permitted Biscayne aquifer production wells, for storage within the Floridan aquifer system consistent with their FDEP issued Underground Injection Control permits. The District will consider the availability of stormwater that is not otherwise needed for environmental protection or enhancement and is in no way bound to authorize such requests. All such requests shall be made in writing to the Director of Water Use Regulation.
44. All annual reports required in these Special Conditions shall address activities that occurred during a calendar year and shall be submitted to Water Use Compliance on or before April 15th of the following year.
45. If it is determined that the conditions for permit issuance are no longer met for the 20 year permit duration, the permittee shall obtain a modification of the Permit from the District as necessary to

come into compliance with the conditions for permit issuance. Such conditions for permit issuance include minimum flows and levels, water reservations, and other conditions ensuring the use does not cause water resource harm and is consistent with the objectives of the District, including implementation of the Comprehensive Everglades Restoration Plan.

46. The permittee shall operate the West Wellfield in accordance with the Memorandum of Understanding between the U.S. Department of the Interior, the Governor of the State of Florida, Miami Dade County and the District incorporated in Exhibit 35.

STANDARD PERMIT CONDITIONS

1. All water uses authorized by this permit shall be implemented as conditioned by this permit, including any documents incorporated by reference in a permit condition. The District may revoke this permit, in whole or in part, or take enforcement action, pursuant to Section 373.136 or 373.243, F.S., unless a permit modification has been obtained to address the noncompliance.

The Permittee shall immediately notify the District in writing of any previously submitted material information that is later discovered to be inaccurate.

2. The Permittee is advised that this permit does not relieve any person from the requirement to obtain all necessary federal, state, local and special district authorizations.
3. The Permittee shall notify the District in writing within 30 days of any sale, transfer, or conveyance of ownership or any other loss of permitted legal control of the Project and/or related facilities from which the permitted consumptive use is made. Where Permittee's control of the land subject to the permit was demonstrated through a lease, the Permittee must either submit a new or modified lease showing that it continues to have legal control or documentation showing a transfer in control of the permitted system/project to the new landowner or new lessee. All transfers of ownership are subject to the requirements of Rule 40E-1.6107, F.A.C. Alternatively, the Permittee may surrender the consumptive use permit to the District, thereby relinquishing the right to conduct any activities under the permit.
4. Nothing in this permit should be construed to limit the authority of the District to declare a water shortage and issue orders pursuant to Chapter 373, F.S. In the event of a declared water shortage, the Permittee must adhere to the water shortage restrictions, as specified by the District. The Permittee is advised that during a water shortage, reports shall be submitted as required by District rule or order. The Permittee is advised that during a water shortage, pumpage, water levels, and water quality data shall be collected and submitted as required by District orders issued pursuant to Chapter 40E-21, F.A.C.
5. This permit does not convey to the Permittee any property rights or privileges other than those specified herein, nor relieve the permittee from complying with any applicable local government, state, or federal law, rule, or ordinance.
6. With advance notice to the Permittee, District staff with proper identification shall have permission to enter, inspect, observe, collect samples, and take measurements of permitted facilities to determine compliance with the permit conditions and permitted plans and specifications. The Permittee shall either accompany District staff onto the property or make provision for access onto the property.
7. A. The Permittee may seek modification of any term of an unexpired permit. The Permittee is advised that Section 373.239, F.S., and Rule 40E-2.331, F.A.C., are applicable to permit modifications.

B. The Permittee shall notify the District in writing 30 days prior to any changes to the project that

could potentially alter the reasonable demand reflected in the permitted allocation. Such changes include, but are not limited to, change in irrigated acreage, crop type, irrigation system, large users agreements, or water treatment method. Permittee will be required to apply for a modification of the permit for any changes in permitted allocation.

8. If any condition of the permit is violated, the permit shall be subject to review and modification, enforcement action, or revocation pursuant to Chapter 373, F.S.
9. The Permittee shall mitigate interference with existing legal uses that was caused in whole or in part by the Permittee's withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation will include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in withdrawal source, or other means.

Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1-in-10 year drought event that results in the:

A. Inability to withdraw water consistent with provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference; or

B. Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent.

10. The Permittee shall mitigate harm to the natural resources caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to the conditions for permit issuance includes:

A. Reduction in ground or surface water levels that results in harmful lateral movement of the fresh water/salt water interface,

B. Reduction in water levels that harm the hydroperiod of wetlands,

C. Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond,

D. Harmful movement of contaminants in violation of state water quality standards, or

E. Harm to the natural system including damage to habitat for rare or endangered species.

11. The Permittee shall mitigate harm to existing off-site land uses caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm as determined through reference to the conditions for permit issuance, includes:

A. Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other governmental authorization issued for the construction of the water body. In cases where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g. fill for construction, mining, drainage canal, etc.)

B. Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive use; or,

C. Land collapse or subsidence caused by reduction in water levels associated with consumptive use.

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED PWS

Location: MIAMI-DADE COUNTY, S-/T53S/R39E
S-/T53S/R40E
S-/T53S/R41E
S-/T54S/R39E
S-/T54S/R40E
S-/T54S/R41E
S-/T54S/R42E
S-/T55S/R39E
S-/T55S/R40E
S-/T56S/R38E
S-/T56S/R39E
S-/T57S/R38E
S-/T57S/R39E
S-/T57S/R40E

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which does or may affect their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

FILING INSTRUCTIONS

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery, or e-mail. **Filings by facsimile will not be accepted after October 1, 2014.** A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the District Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the District Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office.** An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the District Clerk's Office at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency decision.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the SFWMD takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the District Clerk within 30 days of rendering of the final SFWMD action.

Last Date for Agency Action:

February 12, 2015

WATER USE STAFF REPORT

**FINAL APPROVED BY
EXECUTIVE DIRECTOR
FEBRUARY 9, 2015**

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED PWS

Water Use Permit Status: MODIFICATION/RENEWAL

Location: MIAMI-DADE COUNTY, S-/T53S/R39E
S-/T53S/R40E
S-/T53S/R41E
S-/T54S/R39E
S-/T54S/R40E
S-/T54S/R41E
S-/T54S/R42E
S-/T55S/R39E
S-/T55S/R40E
S-/T56S/R38E
S-/T56S/R39E
S-/T57S/R38E
S-/T57S/R39E
S-/T57S/R40E

Applicant's Name and Address: MIAMI-DADE WATER AND SEWER DEPARTMENT
P O BOX 330316
MIAMI, FL 33233-0316

Water Use Classification: Public Water Supply
Aquifer Storage And Recovery

Sources:

Groundwater from: Biscayne Aquifer
Upper Floridan Aquifer

Authorized Allocation:

Annual Allocation: 140,915.5 Million Gallons (MG)
Maximum Monthly Allocation: 12,330.1 Million Gallons (MG)

Specific Source Limitations:	Annual(MG)	Monthly(MG)
Biscayne Aquifer	127,567.5	11,162.16
Upper Floridan Aquifer	13,348.05	1,167.95

Existing Withdrawal Facilities - Groundwater

Existing Withdrawal Facilities - Groundwater

Source: Biscayne Aquifer

- 1 - 18" X 66' X 1500 GPM Well Cased to 53 Feet
- 1 - 30" X 115' X 2500 GPM Well Cased to 80 Feet
- 2 - 24" X 70' X 6945 GPM Wells Cased to 35 Feet
- 1 - 42" X 68' X 8500 GPM Well Cased to 54 Feet
- 1 - 30" X 115' X 4170 GPM Well Cased to 80 Feet
- 1 - 14" X 115' X 3800 GPM Well Cased to 80 Feet
- 1 - 16" X 50' X 1600 GPM Well Cased to 40 Feet
- 1 - 6" X 30' X 400 GPM Well Cased to 25 Feet
- 7 - 16" X 100' X 4170 GPM Wells Cased to 40 Feet
- 1 - 42" X 68' X 8500 GPM Well Cased to 60 Feet
- 1 - 24" X 70' X 3470 GPM Well Cased to 35 Feet
- 1 - 16" X 100' X 7500 GPM Well Cased to 40 Feet
- 6 - 42" X 107' X 7000 GPM Wells Cased to 66 Feet
- 1 - 18" X 55' X 1500 GPM Well Cased to 42 Feet
- 1 - 12" X 40' X 800 GPM Well Cased to 35 Feet
- 4 - 24" X 108' X 8300 GPM Wells Cased to 50 Feet
- 3 - 48" X 88' X 7500 GPM Wells Cased to 33 Feet
- 1 - 18" X 50' X 500 GPM Well Cased to 40 Feet
- 4 - 24" X 104' X 6940 GPM Wells Cased to 54 Feet
- 1 - 18" X 65' X 1500 GPM Well Cased to 50 Feet
- 1 - 12" X 35' X 1200 GPM Well Cased to 30 Feet
- 6 - 20" X 100' X 4900 GPM Wells Cased to 40 Feet
- 2 - 24" X 100' X 7500 GPM Wells Cased to 50 Feet
- 4 - 24" X 100' X 4900 GPM Wells Cased to 35 Feet
- 1 - 48" X 80' X 10416.67 GPM Well Cased to 46 Feet
- 10 - 48" X 80' X 10420 GPM Wells Cased to 46 Feet
- 1 - 42" X 68' X 10000 GPM Well Cased to 54 Feet
- 1 - 18" X 55' X 1500 GPM Well Cased to 45 Feet
- 1 - 42" X 107' X 7000 GPM Well Cased to 69 Feet
- 2 - 12" X 40' X 1600 GPM Wells Cased to 35 Feet
- 20 - 14" X 115' X 2500 GPM Wells Cased to 80 Feet
- 4 - 40" X 100' X 10420 GPM Wells Cased to 57 Feet
- 1 - 12" X 35' X 800 GPM Well Cased to 30 Feet
- 1 - 42" X 68' X 10000 GPM Well Cased to 60 Feet

Source: Upper Floridan Aquifer

- 5 - 17" X 1490' X 1400 GPM Wells Cased to 1080 Feet
- 1 - 30" X 1200' X 3500 GPM Well Cased to 765 Feet
- 1 - 30" X 1210' X 3500 GPM Well Cased to 835 Feet
- 1 - 30" X 1300' X 3500 GPM Well Cased to 850 Feet
- 1 - 30" X 1250' X 3500 GPM Well Cased to 845 Feet
- 1 - 30" X 1200' X 3500 GPM Well Cased to 760 Feet
- 1 - 17" X 1490' X 1400 GPM Well Cased to 1150 Feet

Proposed Withdrawal Facilities - Groundwater

Proposed Withdrawal Facilities - Groundwater

Source: Biscayne Aquifer

1 - 24" X 50' X 1400 GPM Well Cased to 45 Feet

1 - 24" X 50' X 2800 GPM Well Cased to 45 Feet

3 - 24" X 72' X 1400 GPM Wells Cased to 45 Feet

Source: Upper Floridan Aquifer

7 - 24" X 1200' X 2430 GPM Wells Cased to 1100 Feet

8 - 17" X 1490' X 1400 GPM Wells Cased to 1080 Feet

<u>Rated Capacity Source</u>	<u>Status Code</u>	<u>GPM</u>	<u>MGM</u>	<u>MGY</u>
Biscayne Aquifer	E	518,777	22,710.0	272,669
Upper Floridan Aquifer	E	25,900	1,133.8	13,613
Biscayne Aquifer	P	8,400	367.7	4,415
Upper Floridan Aquifer	P	28,210	1,234.9	14,827
Totals:		581,287	25,446.4	305,524

PURPOSE

The purpose of this application is to renew and modify Water Use Permit 13-00017-W for public water supply for the Miami-Dade Water and Sewer Department (MDWASD) service area serving 2,642,929 persons in the year 2033 with an average finished water per capita use rate of 137.2 gallons per capita per day (gpcd) and a maximum monthly to average monthly pumping ratio of 1.05:1. Withdrawals are from the Biscayne aquifer via 84 existing and 5 proposed withdrawal facilities and from the Upper Floridan aquifer system (FAS) via 6 existing withdrawal facilities and 15 proposed withdrawal facilities. In addition, there are five Aquifer Storage and Recovery (ASR) facilities.

The following modifications to the existing WUP are recommended:

Source Allocation Changes:

Decrease the Biscayne aquifer allocation by 16.36 million gallons per day (MGD), from 133,539 million gallons per year (MGY), or 365.86 MGD to 127,567.5 MGY (349.5 MGD). Because of conservation efforts and updated population projections, MDWASD no longer requires additional water from the Biscayne aquifer beyond the base condition amount. As a result, the West District Water Reclamation Plant (WRP) Canal Recharge projects (Projects 6 and 7 shown on Exhibit 14 from the previous permit issued in 2012) are no longer required to offset proposed Biscayne aquifer withdrawals beyond the established base condition of 349.5 MGD. A chart showing reduction in gpcd is shown on Exhibit 6.

Decrease the Floridan aquifer allocation by 10.03 MGD, from 17,009 MGY (46.6 MGD) to 13,348 MGY (36.57 MGD) through the reduction in proposed pumpage from the Hialeah FAS from 23.33 MGD to 13.30 MGD, due to decreased projected demands..

Reuse Projects:

Revise the reuse requirement (Limiting Condition 39 of the 2012 permit) reducing the

PURPOSE (CONTINUED)

minimum volume of reuse projects (as set forth in Projects 1 through 8 of Exhibit 14 of the 2012 permit) from 170 MGD to 117.5 MGD. This volume meets the minimum requirement of the ocean outfall legislation (See Exhibit 14).

Remove from the permit a requirement to provide 37 MGD of advanced treated reclaimed water to recharge the Alexander Orr water treatment plant (WTP) Wellfields (Projects 5 and 6 from Exhibit 14 of the 2012 permit).

Remove from the permit a requirement to provide seven MGD of reclaimed water from the North District wastewater treatment plant (WWTP) (Project 7 from Exhibit 14 of the 2012 permit).

PROJECT DESCRIPTION

The Miami-Dade Consolidated Public Water Supply (Project) is a currently permitted (13-00017-W) project located in eastern Miami-Dade County (Exhibit 1). MDWASD's service area is depicted on Exhibit 2A. MDWASD is permitted to provide potable water from 15 wellfields (Exhibit 3A) to a projected population of 2,642,929 persons in the year 2033. Withdrawals are from the Biscayne aquifer via 95 existing and 5 proposed withdrawal facilities and from the FAS via 6 existing withdrawal facilities and 15 proposed withdrawal facilities. In addition, there are five existing ASR facilities. Individual wellfield layouts are shown on Exhibits 3B to 3R). Prior to drilling the proposed wells, it will be necessary to obtain well construction permits from the Florida Department of Health in Miami-Dade County.

System Description:

The overall Project is divided into North, Central and South systems with some interconnection between them at the treated water distribution level (Exhibits 2B and 3A).

The North system includes the Hialeah and John E. Preston WTPs, which are supplied by the Hialeah, Preston, Miami Springs (upper and lower) and Northwest wellfields and by the Medley wellfield on an emergency basis. A reverse osmosis (RO) treatment plant, producing approximately 7.5 MGD of treated FAS water from 6 Floridan aquifer wells, began operation in December of 2013 (Phase 1) in the City of Hialeah. The Hialeah FAS system will ultimately produce 10 MGD of treated water upon completion in 2015 (Exhibit 13). See Exhibits 3B through 3G for well locations for the North System.

The Central system includes the Alexander Orr, Jr. WTP, which is supplied by the Alexander Orr, Snapper Creek, Southwest and West Wellfields. There are three existing ASR Floridan aquifer wells at the West Wellfield (WWF) and two at the Southwest wellfield (SWWF). See Exhibits 3H through 3K for well locations for the Central System.

In the previous permit, a total of 37 MGD (above the calculated base condition of 85.9 MGD) was authorized from the SWWF beginning in 2021. These additional withdrawals were to be offset on a 1:1 basis by applying reclaimed water between the SWWF and regional waterbodies. Due to water conservation measures and updated population

PROJECT DESCRIPTION (CONTINUED)

projections showing a lower population growth rate through 2033, MDWASD no longer requires this additional water, beyond the modified base condition of 349.5 MGD, from the Biscayne aquifer. Therefore, the allocation from the Biscayne aquifer is reduced by this quantity and the reuse project is no longer required.

For the previous permit modification, modeling was conducted to show that the base condition allocation for the SWWF could be increased from 85.9 MGD to 110 MGD (an additional 24.1 MGD) by reducing the base condition allocation for the Alexander Orr Wellfield from 62 MGD to 40 MGD without inducing additional seepage from the regional waterbodies. This shift in allocation from Alexander Orr to the SWWF allows the ASR wells to be used on a regular basis storing Biscayne aquifer volumes not exceeding the Biscayne aquifer wellfield limits for the water use permit. Exhibit 10C shows components used to derive the modified Biscayne aquifer base condition for the various wellfields.

The South system currently consists of five wellfields and associated equipment: 1) Everglades Labor Camp, 2) Leisure City, 3) Newton, 4) Elevated Tank, and 5) Naranja. A new South Miami Dade membrane-softening WTP is scheduled to be completed by December 31, 2019. Two new Biscayne aquifer wellfields in South Miami Heights (SMH), at the Former Plant site and Roberta Hunter Park, will provide three MGD of raw water to the new membrane plant. A new 23.3 MGD FAS wellfield and RO treatment plant capable of providing 17.5 MGD of treated water will also be constructed in the SMH area. Phase 1 of the SMH RO treatment plant is scheduled to be completed at the end of 2019 and will be capable of providing 12.45 MGD of treated water. Phase 2 of this treatment plant is scheduled to be completed by the end of 2031 and will provide an additional five MGD of treated water (see Exhibit 13). See Exhibits 3L through 3R for well locations. Leisure City, Elevated Tank, and Naranja WTPs and wellfields will be taken off-line upon operational status of the new South Miami-Dade membrane WTP and the Everglades and Newton facilities will go to standby status.

Permit History:

North Miami-Dade:

The South Florida Water Management District (SFWMD or District) issued the first water use permit for the Hialeah-Preston WTPs (Water Use Permit 13-00018) on February 7, 1975, with an annual allocation of 38.74 billion gallons per year (BGY) (106.14 MGD) from the Miami Springs, Medley, Hialeah and Preston Wellfields. This permit (Water Use Permit 13-00018-W) was reissued on February 12, 1981 for a ten-year period and an annual allocation of 45.62 BGY (124.97 MGD).

The first water use permit for the Northwest Wellfield (Water Use Permit 13-00037-W) was issued on September 4, 1975 for an annual allocation of 18.15 BGY (50 MGD). The Northwest Wellfield water Use Permit 13-00037-W with an annual allocation of 60.23 BGY (165 MGD) was modified and issued on March 12, 1987.

PROJECT DESCRIPTION (CONTINUED)

The Hialeah-Preston and Northwest permits were combined into one master permit (Water Use Permit 13-00037-W) on March 14, 1991. The permit authorized a withdrawal of 60.20 BGY, an average daily withdrawal of 164.93 MGD, and a maximum daily withdrawal of 197.91 MGD. In February 1999, the permit was reissued for an annual allocation of 72,703 million gallons (MG) (72.7 BGY) and a maximum day allocation of 235.04 MGD. The permit included a maximum pumpage from the Northwest Wellfield of 155 MGD, and 70 MGD from the Hialeah, Preston, and Miami Springs Wellfields, and the remainder (but not limited to) 10 MGD from the ASR wells. The permitted wellfields included 45 Biscayne aquifer production wells located in the Hialeah, Preston, Miami Springs and Northwest Wellfields. An application to modify the permit was received on January 8, 2001. The permit expiration date was February 11, 2004.

Central Miami-Dade:

The SFWMD issued the first water use permit for Alexander Orr, Southwest and Snapper Creek wellfields (Water Use Permit 13-00017-W) on February 7, 1975, with an annual allocation of 30.66 BGY (84 MGD). On September 4, 1975, the annual allocation was increased to 34.31 BGY (94 MGD). The permit was renewed on December 13, 1979, with an annual allocation of 47.45 BGY (130 MGD) and included the allocations and service areas previously associated with Water Use Permits 13-00028-W, (Florida Water & Utilities), 13-00058-W (General Water Works), and 13-00067-W (South Miami Heights). On April 10, 1986, the permit was renewed with an annual allocation of 60.408 BGY (165.5 MGD), and a maximum day allocation of 198.2 MG. The permit was renewed again on November 10, 1993, with an annual allocation of 66.231 BGY (181.45 MGD) from the Alexander Orr, Southwest, Snapper Creek and WWF. In May 1995, the SFWMD issued Water Use Permit 13-00017-W for the Alexander-Orr WTP with an annual allocation of 74,136 MG (203.11 MGD), and a maximum day allocation of 241.60 MGD, of which 23.96 MGD are allocated to ASR. The permit expiration date was May 11, 2004, and an application to renew and modify the permit was received on the expiration date.

South Miami-Dade:

Water Use Permit 13-00040-W was initially issued to Rex Utilities, Inc. on March 18, 1976, with an annual allocation of 4.15 BGY (11.4 MGD) and a maximum day of 14.8 MGD. Subsequently, MDWASD acquired the facilities that are now known as the South Miami-Dade Water Supply System. The original permit was modified and renewed on July 8, 1982, with an allocation of 3.76 BGY (10.61 MGD) and a maximum day of 15.9 MGD for the six wellfields. The permit expired on July 8, 1992 and was reissued to MDWASD on July 14, 1994, with an annual allocation of 3.873 BGY (10.61 MGD) and a maximum day of 15.92 MGD. On July 11, 1998, the permit was renewed again with an annual allocation of 3.902 BGY (10.69 MGD) and a maximum day of 13.58 MGD. On March 13, 2003, the SFWMD re-issued permit number 1300040-W with an annual allocation of 3.997 BG (10.95 MGD), and a maximum daily allocation of 13.4 MGD and authorization to install 4 new wellfields to supply water to a new membrane softening WTP. The permit expiration date was March 13, 2008.

PROJECT DESCRIPTION (CONTINUED)

Consent Agreement:

On May 10, 2006, Miami-Dade County and the SFWMD entered into an Interim Consumptive Use Authorization and Agreement. The agreement authorized withdrawals of up to 349.76 MGD for a duration of 18 months, required completion of a list of tasks to respond to an outstanding Request for Additional Information necessary to issue a 20 year permit, granted 18 months to complete the tasks, and required Miami-Dade County to develop a plan to use alternative sources to meet all future demands over 347 MGD.

Consolidated Permit:

On November 15, 2007, Water Use Permit 13-00017-W was renewed and consolidated all facilities and demands of Water Use Permits 13-00017-W, 13-00037-W and 13-00040-W into one permit. It was issued with a duration of 20 years, an annual allocation of 152,741 MGY (418.47 MGD) and a maximum monthly allocation of 13,364 million gallons per month (MGM). Along with the existing wellfields and the proposed South Dade wellfield, a new FAS wellfield and RO plant were proposed in Hialeah. The Biscayne aquifer base condition was established at 347 MGD, pursuant to Section 3.2.1E of the Applicant's Handbook (AH) for Water Use Permit Applications Within the SFWMD. Additional groundwater modeling conducted during the permit review showed that an additional 5.0 MGD (1.5 MGD at Snapper Creek, 1.5 MGD at Southwest, 0.5 MGD at Newton, and 1.5 MGD at Everglades wellfields) would not cause a net increase in volume or cause a change in timing of surface and groundwater from Everglades water bodies. Groundwater and canal recharge projects were required to offset proposed increased Biscayne aquifer withdrawals beyond the calculated Base Condition limit of 347 MGD.

On November 1, 2010, the consolidated permit (13-00017-W) was modified (to remove proposed FAS blending wells and re-start the existing ASR wells) and renewed for a 20 year duration, with an annual allocation of 149,106 MGY (408.51 MGD) and a maximum monthly allocation of 13,047 MGM to provide potable water to a projected population of 2,787,451 persons in the year 2030.

On July 16, 2012, the permit was modified to add FAS facilities and allocation, modify the calculated base condition from 347 MGD to 349.5 MGD, reduce the total allocation from the Biscayne aquifer and modify the source limits from the Alexander Orr and Southwest wellfields. There were no changes to the demand projections or permit duration.

PROJECTED WATER USE DEMANDS

The Permittee estimates a 2033 population of 2,642,929 persons with a finished water per capita use rate of 137.2 (gpcd). The per capita use rate was calculated from a three year average for 2011 through 2013 (see Exhibit 7). The raw water per capita (146 gpcd) is higher due to treatment losses. The maximum monthly peaking ratio (1.05:1) was calculated by dividing the peak raw water monthly rate by the average raw water monthly rate for the three year time period of 2011 through 2013.

PROJECTED WATER USE DEMANDS (CONTINUED)

Staff recommends an annual allocation of 140,916 MG (386.07 MGD) through the year 2033. Staff further recommends a maximum month allocation of 12,330 MG based on a maximum month to average month ratio of 1.05:1. These total allocation values are lower than shown in the previous permit due to effective water conservation programs and revised population projections. See Exhibit 8A for projected demand tables and Exhibit 9 for a step chart of raw supply and finished demand.

IMPACT EVALUATION

FAS - Hialeah Wellfield:

Impacts due to the operation of the proposed Hialeah RO Wellfield were evaluated prior to the issuance of the 2010 permit. The City of Hialeah's consultant (Schlumberger Water Services) ran the East Coast Floridan Aquifer System SEAWAT model developed for the SFWMD. The model has 14 layers representing the surficial aquifer system to the Boulder Zone and includes all or part of 7 counties. The Applicant created a local scale model in the vicinity of the Hialeah RO wellfield based on the regional model. The local model has 106 rows, 112 columns and grid spacing between 75 and 2,400 feet. The 14 model layers were maintained, however the depths of some layers were adjusted based on local field data (see Exhibit 26A). The open interval of the Hialeah RO wells is within layers 3, 4 and 5 of the model. The model was calibrated to the results of a five day aquifer performance test of well R01 Hialeah with three monitor wells. Hydraulic conductivity was 90 feet per day, storativity was 5.25×10^{-7} and the ratio of horizontal to vertical hydraulic conductivity was set to 0.1 in the model.

The Hialeah wellfield includes 14 wells (including 12 primary production wells and two backup wells) with a total pumping capacity of 23.33 MGD. Pumpage in the model was distributed among all 14 wells. Predictive simulations were run for 30 years with pumpage rates varying from 13.33 MGD to 23.33 MGD. The maximum drawdown when pumping 13.33 MGD is predicted to be 65 feet. The maximum drawdown when pumping at 23.33 MGD is predicted to be 107 feet. See Exhibit 26B and 26C for drawdown maps.

FAS - South Miami Heights:

MDWASD is proposing to use the FAS as an alternative water supply source to meet the expected demands for the planned SMH wellfield. The location of the wellfield is shown on Exhibit 3L, and the well construction details are shown on Exhibit 5. MDWASD is proposing a maximum monthly withdrawal rate of 23.3 MGD raw Floridan aquifer water, which will result in 17.5 MGD of treated water, based on 75 percent treatment efficiency. The SMH FAS Wellfield consists of 8 wells with a withdrawal rate of 3.0 MGD each for a design withdrawal capacity of 24 MGD.

To assess the impacts from the proposed withdrawals from the SMH FAS wellfield, the City developed an uncalibrated MODFLOW model consistent with Section 1.7.5.2 of the AH. A report detailing the model development and results are contained in the permit file. That report describes modeling and results for an 18 MGD SMH RO

IMPACT EVALUATION (CONTINUED)

Wellfield. Additional modeling was performed subsequent to this report with a withdrawal rate of 24 MGD from 8 wells for the SMH FAS Wellfield. Individual and cumulative drawdown maps are shown on Exhibits 26D and 26E.

The closest wellfields to SMH have existing drawdowns based on the modeled results of 44.09 feet for Florida Power and Light (FPL), and 12.18 feet for Florida Keys Aqueduct Authority (FKAA), Water Use Permit 13-00005-W. Exhibit 26F shows existing legal users in the area and Exhibit 26E shows the cumulative drawdowns for existing legal users. SMH lies just outside the one foot drawdown contour of FPL and FKAA.

Results of the model run simulating SMH only with a continuous withdrawal for 90 days at 24 MGD were analyzed for the 1 foot drawdown contour. This simulation represents the cone of depression in the Upper Floridan aquifer due to pumping of only the SMH wellfield. The MDWASD ASR facility at the SWWF lies just inside the 1 foot contour, while the MDWASD WWF ASR facility, FPL and FKAA lie outside the 1 foot drawdown contour. Drawdowns were 0.58 foot at the West wellfield (WWF) ASR, 1.28 feet for SWWF ASR, 0.54 foot at FPL, and 0.21 foot at FKAA.

Results were analyzed for the continuous withdrawal for 90 days of SMH at 24 MGD and existing legal users at their permitted allocation. Drawdowns were 0.63 foot at the WWF, 1.36 feet at the SWWF, 44.63 feet at FPL, and 12.39 feet at FKAA. Exhibit 26E shows the cumulative drawdown due to pumping at SMH and existing legal users.

The WWF and SWWF ASR facilities are designed to inject freshwater for later retrieval as part of ASR operations. In order to assess possible impact to the operation of these facilities as a result of SMH withdrawals on the ASR operation, MODPATH, a particle tracking post-processing package for MODFLOW (Pollack, 1994) was run. Particles were added directly to the south of the SWWF ASR well model cells. Simulation 5 was run for 30 years first in MODFLOW, and then MODPATH was run in order to assess particle movement. The MODPATH model run was analyzed to assess the impact of SMH and the existing legal users on the SWWF ASR system. After a run of 30 years, particles traveled 365 feet from their original position. Because the residence time of fresh water injected into the ASR wells will typically be around 6 months, the travel distance of the fresh water bubble should be substantially less than that calculated for 30 years and should not have a significant impact on the ability of the ASR wells to recover the fresh water bubble.

Biscayne Aquifer:

For the 2010 permit issuance, modeling was performed to assess impacts from the existing and proposed withdrawals on the Biscayne aquifer. The Applicant used the SFWMD Lower East Coast subRegional (LECsR) MODFLOW model, modified to meet the requirements for permit applications. The model is documented in a draft SFWMD publication dated March 2006. The model cells are 704 feet by 704 feet and

IMPACT EVALUATION (CONTINUED)

the model domain extends from the St. Lucie Canal and River in Martin County south to Biscayne Bay in Miami-Dade County. Additionally, it extends from the western boundaries of Martin, Palm Beach, Broward and Miami-Dade counties to the Atlantic Ocean. The model has daily time steps and simulates 14 years from January 1986 to September 1999.

For the 2010 permit, the model was calibrated for the time period July 1988 to March 1990. This 21 month period included three months of average rainfall conditions followed by 15 months of 1-in-10 year drought conditions and then three months of average conditions. This time period was also used for the predictive runs. The C-100, C-102, C-103, C-1, C-1 N, C-1W and L-31 canals were calibrated to flow data between water control structures. Monitor wells at each wellfield were used to check local calibration and at least three wells at each wellfield had model water levels that were within one foot of actual water levels for the 1-in-10 year drought period. Permitted users within the 0.1 foot cone of influence of each wellfield were included in the cumulative model runs submitted by the applicant. These 2010 predictive model scenarios are listed in Exhibit 23.

Effects of Shifting Base Condition Allocation from Alexander Orr to Southwest Wellfield:

Base Condition water use was established for each Biscayne aquifer wellfield, consistent with Section 3.2.1E of the AH, in the permit issued in 2007. In 2010 the permit was modified allowing the withdrawal of up to 388 MGD of groundwater from the Biscayne aquifer. This quantity of water was granted based (in part) on an evaluation of the impact of MDWASD's groundwater withdrawals on Regional Waterbodies under its Base Condition Water Use and its requested allocation. As defined by Section 3.2.1.E of the AH, Base Condition Water Use is the maximum quantity of water withdrawn during a consecutive 12-month period between 2001 and 2006. The amount of seepage from Regional Waterbodies (primarily SFWMD Canals and Everglades National Park) induced by MDWASD's groundwater pumpage under Base Conditions was evaluated with the LECsR groundwater model developed by the SFWMD. This model was also used to evaluate the impacts associated with MDWASD's projected water demands. As many of MDWASD's wells did not have flow meters, the Base Condition groundwater pumpage rates for several wellfields were estimated. Exhibit 10C shows the Base Condition groundwater pumpage rates for MDWASD's Biscayne aquifer wellfields established in 2007, as well as the Modified Base Condition resulting from subsequent modeling and a shift of base condition from this permit to the City of North Miami Beach (Water Use Permit 13-00060-W).

In compliance with Limiting Condition 17 of the 2007 permit, MDWASD began installing flow meters on all of its wells and recalibrating wells with existing flow meters. It was discovered that the actual capacity of the Alexander Orr Wellfield was on the order of 35 MGD, which is approximately 27 MGD less than that assumed for the Base Condition (62 MGD).

IMPACT EVALUATION (CONTINUED)

Limiting Condition No. 31 limited annual withdrawals from the SWWF to 85.9 MGD. However, the capacity of the SWWF is considerably higher (approximately 161 MGD). MDWASD requested to shift 20 to 30 MGD of groundwater pumpage from the Alexander Orr Wellfield to the SWWF to maximize its production capabilities at the Alexander Orr WTP.

The LECsR model was used by the Applicant's consultant to evaluate the impacts on Regional Waterbodies resulting from the proposed shift in Base Condition allocation. A technical report documenting the modeling effort and the results is contained in the permit file. The modeling compared withdrawals from the Alexander Orr and SWWF as established in the previous permit and the proposed shift in allocation from Alexander Orr wellfield to the SWWF. Several potential scenarios were modeled. For each scenario, seepage rates from all potential Regional Waterbodies were calculated using the USGS MULTIBUD program. Regional Waterbodies used in this analysis are shown on Exhibit 25E.

According to the LECsR model simulations, MDWASD's proposed shift of pumpage from the Alexander Orr Wellfield to the SWWF would result in approximately one to three MGD of additional seepage from the upper reaches of the C-2 and C-1W Canals (MULTIBUD Zones A and D) to the Biscayne aquifer, relative to the seepage that occurs under Base Conditions. Approximately 4 to 10 MGD more groundwater would discharge from the Biscayne aquifer to the lower portion of the C-2 Canal (MULTIBUD Zone B), relative to Base Conditions. In the C-1 Canal (MULTIBUD Zone E), the net additional seepage, relative to Base Conditions, is similar under all scenarios evaluated. The additional seepage that occurs in the C-100C Canal (MULTIBUD Zone L), L-31N Canal (MULTIBUD Zone M), and the C-4 Canal (MULTIBUD Zone N) is less than 0.3 MGD for all scenarios. Overall, the total simulated change in seepage, relative to Base Conditions, is a 2 to 6 MGD decrease in the seepage from the canal system to the Biscayne aquifer, relative to Base Conditions. Exhibit 25F shows the difference in net seepage on a monthly basis for the modeling scenarios. The modeling results indicate that the proposed pumping would not cause an increase in canal seepage to the Biscayne aquifer, and the implementation of any scenario would not cause additional indirect withdrawals from Regional Waterbodies.

WATER RESOURCE IMPACT EVALUATION

Water Resource Availability

Biscayne Aquifer

There are two major aquifer systems in Miami-Dade County, as discussed in the United States Geological Survey (USGS) Water Resource Investigations Report 90-4108. Overlying the FAS in Miami-Dade County is a 550- to 800-foot thick sequence consisting of sediments having relatively low permeability, referred to as the intermediate confining unit. Overlying the intermediate confining unit is the surficial aquifer system, the source of freshwater supplies for Miami-Dade County and for

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

most of southeast Florida. The surficial aquifer system base is -180 to -220 feet National Geodetic Vertical Datum (NGVD) and includes the Biscayne aquifer and the gray limestone aquifer. The base of the Biscayne aquifer is 80 to 100 feet below land surface (bls) at all the Miami-Dade public water supply wellfields except the Hialeah/Preston, Miami Springs and Medley wellfields, where the aquifer base is 130 to 150 feet bls.

According to USGS aquifer performance tests in the area, the transmissivity of the Biscayne aquifer is approximately 500,000 square feet per day (ft²/d) at most of the Miami-Dade wellfields. At the Northwest and West wellfields, the transmissivity is 1 million ft²/d and at Alexander Orr and Snapper Creek the transmissivity is 750,000 ft²/d.

Land surface elevations in Miami-Dade County average 5 to 10 feet NGVD, with coastal dune remnants reaching 15 to 20 feet NGVD. The approximate dry season depths to water at the wellfields are as follows:

Northwest: 6' (-1' NGVD)
Preston: 14' (-5' NGVD)
Miami Springs: 7' (-1' NGVD)
West: 3' (3' NGVD)
Southwest: 13' (-4 NGVD)
Snapper Creek: 8' (-3' NGVD)
Alexander Orr: 13.5' (-5.5' NGVD)
Naranja: 4' (2' NGVD)
Newton: 4.5' (1.5' NGVD)
Everglades: 3' (2' NGVD)
Leisure City: 4' (2' NGVD)
Elevated Tank: 6' (3' NGVD)
South Miami Heights: 6' (2' NGVD) predicted

The water levels are based on monitor well data for the north wellfields and from results of modeling data in 2030 at the Southwest, Alexander Orr and South system wellfields. In the dry season, approximately 86 feet of the Biscayne aquifer would remain saturated.

Sources of recharge to the surficial aquifer system in Miami-Dade County are: (1) infiltration of rainfall or irrigation water; (2) infiltration of surface water and groundwater imported from the water-conservation areas/Everglades National Park; (3) infiltration of urban runoff by way of drains, wells, or ponds; and (4) groundwater inflow from southwestern Broward County. Recharge by rainfall is greatest during the wet season, from June to November, and recharge by canal seepage is greatest during the dry season, from December to May. Water level data is collected from an extensive USGS monitor network (see Exhibits 29A, 29B and 30). These data indicate that groundwater flows from western Miami-Dade County towards the coast and fluctuates

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

approximately two feet from wet to dry season.

The Preston, Medley, and Miami Springs wellfields are adjacent to the C-6 canal upstream of the S-26 structure, which is operated to maintain a headwater elevation of 2.5 feet NGVD. The Alexander Orr and Snapper Creek wellfields are adjacent to the C-2 canal upstream of the S-22 structure, which is operated to maintain a headwater elevation of 2.9 feet NGVD. The two SMH proposed wellfields are in the vicinity of the C-1W and C-1N canals upstream of the S-21 structure, which is operated to maintain a headwater elevation of 2.0 feet NGVD in the dry season and 2.4 feet NGVD in the wet season. Monitor wells have been installed to observe the impact of new or increased pumpage near these regional canals. See Exhibits 33A and 33B for location maps and Exhibit 33C for a table of well information.

Based on historic data for existing wellfields and model results for proposed withdrawals, the potential for harm to occur to the water resource availability of the Biscayne aquifer as a result of withdrawal of the recommended allocation is considered minimal.

Upper Floridan Aquifer

The deeper aquifer system in Miami-Dade County is commonly known as the FAS and it is present in all of Florida and parts of adjacent states. USGS Water Resource Investigation (WRI 94-4010) is a study of the FAS in southeastern Florida. In Miami-Dade County, the top of the FAS occurs at about -950 to -1,000 feet NGVD. The FAS is divided into three general hydrogeologic units: (1) the Upper Floridan aquifer, which contains brackish groundwater, (2) the Middle confining unit, which contains saline groundwater, and (3) the Lower Floridan aquifer, which contains groundwater closely resembling seawater. The Upper Floridan aquifer, where Miami-Dade's ASR and RO wells are completed, is generally 500 to 600 feet thick, and its transmissivity has been measured to be as high as 31,000 ft²/d. Transmissivities for the ASR wells at the SWWF were measured ranging from 9,451 to 22,873 ft²/day. Transmissivities for the ASR wells at the WWF ranged from 10,293 to 19,650 ft²/day.

Groundwater movement in the upper Floridan aquifer is generally southward to the Gulf of Mexico and the Atlantic Ocean from recharge areas in central Florida. In southern Florida, the FAS is a confined aquifer with potentiometric head elevations of 30 to 50 feet NGVD in Miami-Dade County. There are no current water level maps of the upper Floridan aquifer available to determine actual water levels at the permittee's facilities. Special Conditions 36 and 37 require water level and chloride monitoring of one standby well at each of the upper Floridan aquifer wellfields in this permit. See Exhibit 32A and 32B for a map and table of FAS wells monitored by MDWASD. Modeling was conducted for impact assessment purposes for the previous permit. Model results predicted maximum drawdowns of 65 feet at the Hialeah RO wellfield when pumping 13.33 MGD (see Exhibit 26B). Model results for the SMH RO Wellfield predict drawdowns of 40 to 50 feet in the vicinity of the wellfield at a maximum

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

withdrawal rate of 24 MGD for 90 days and no recharge (Exhibits 26D and 26E).

Water levels in the upper Floridan aquifer will remain approximately 970 feet above the top of the aquifer at the location of maximum drawdown. Based on model results, the potential for harm to occur to the water resource availability of the aquifer as a result of the withdrawal of the recommended allocation is considered minimal.

Existing Legal Users

Biscayne Aquifer

An existing legal user is a water use that is authorized under an SFWMD water use permit or is existing and exempt from permit requirements (domestic uses). A map of existing public water supply permits in Miami-Dade County is shown in Exhibit 4A. Monitor data indicate that the existing withdrawals result in a maximum depth to water of 12 to 14 feet bls at the center of the Preston, Alexander Orr and Southwest wellfields. The other wellfields have depths to water of three to seven feet bls.

Modeling performed for the previous permit demonstrated that the proposed withdrawals from the various Biscayne aquifer wellfields would not cause harm to existing legal users. No increase in withdrawals from any of the Biscayne aquifer wellfields is proposed, and the Snapper Creek Wellfield allocation is reduced by 27.9 MGD (from 199.19 MGD to 171.3 MGD [Exhibit 10A]).

Based on observation of historic data and the predicted impact based on model results, the withdrawals from the Biscayne aquifer are not anticipated to result in the inability of an existing legal user to withdraw water, change the quality of the water to the extent that it can no longer be used for its authorized purpose, or prevent an existing legal user from meeting its permitted demands without exceeding the permitted allocation.

Upper Floridan Aquifer

Hialeah RO wellfield:

The existing legal users of the upper Floridan aquifer in Miami-Dade County and southern Broward County are mapped on Exhibit 4B and listed on Exhibit 4C.

The nearest permitted user to the Hialeah Floridan aquifer wells is the City of Miramar, whose closest well is approximately three miles from the northernmost Hialeah RO wellfield well (see Exhibit 4B for location). Model results predict the proposed withdrawals will result in an additional decline in water level of less than 20 feet at the nearest Miramar well, which would result in water levels at or above land surface and approximately 1,000 remaining feet of available drawdown. Solute transport model results predicted an increase in the concentration of total dissolved solids (TDS) of 135 milligrams per liter (mg/L) after 20 years of pumping at a distance of 2 miles from the wellfield. The increase in TDS is considered by staff to be minimal.

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

SMH RO wellfield:

The nearest existing legal users to the SMH Wellfield are the FKAA (Water Use Permit 13-0005-W) and FPL Turkey Point Power Plant. Results of the model run simulating SMH only with a continuous withdrawal for 90 days at 24 MGD were analyzed within the 1 foot drawdown contour. This simulation represents the cone of depression in the upper Floridan aquifer due to pumping of only the SMH wellfield. The MDWASD ASR facility at the SWWF lies just inside the 1 foot drawdown contour, while the MDWASD WWF ASR facility, FPL and FKAA lie outside the 1 foot drawdown contour. Exhibit 26D shows the extent of the drawdown due to pumping at SMH. Drawdown is predicted to be 0.58 foot for the WWF ASR site, 1.28 feet for SWWF ASR site, 0.54 foot for FPL, and 0.21 foot for FKAA.

In addition, results were analyzed for the continuous withdrawal for 90 days of SMH at 24 MGD and existing legal users at their permitted allocation. Drawdowns were predicted of 0.63 foot at WWF, 1.36 feet at SWWF, 44.63 feet at FPL, and at 12.39 feet at FKAA. Exhibit 26E shows the cumulative drawdown due to pumping at SMH and existing legal users.

The predicted impact on existing users, based on model results, is considered by staff to be minimal. Therefore, the proposed use of the upper Floridan aquifer is not anticipated to result in the inability of an existing legal user to withdraw water, change the quality of the water to the extent that it can no longer be used for its authorized purpose, or prevent an existing legal user from meeting its permitted demands without exceeding the permitted allocation.

Existing Off Site Land Uses

Biscayne Aquifer

Land uses that are dependent upon water being on or near land surface and that existed prior to this application are protected from harm. The surrounding land uses at each of the wellfields are as follows:

North System Wellfields:

Preston - residential north, east and west, industrial/commercial south

Miami Springs Upper - in residential neighborhood with schools and parks

Miami Springs Lower - on golf course with residential on all sides

Northwest - rock mining to north, south and east, undeveloped to west

Central System Wellfields:

Alexander Orr - residential to east and west, commercial to south, WTP to north

Snapper Creek - residential to east, west and south, commercial to north

Southwest - residential on all sides, commercial to south, rural residential/agricultural to north

West - agricultural to east, south and west, undeveloped to north

South System Wellfields:

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

Everglades Labor Camp - residential to east and south, agricultural to north and west
Newton - residential on all sides
Former Plant - residential on all sides and commercial to south
Roberta Hunter Park - residential on all sides

All wellfields will remain at current withdrawal rates. No problems have been reported due to historic pumping from these facilities.

Model results in the area of the proposed SMH wellfields predict less than 0.1 foot of drawdown at the nearest lakes to the east and west, respectively. There are no impacts on adjacent lakes from withdrawals at the Newton wells, which will increase by 0.5 MGD. Withdrawals at the Everglades Labor Camp wells increase by 1.5 MGD from 0.7 MGD, which results in drawdowns of about 0.1 foot at the edge of the adjacent farms.

Pursuant to 3.6.2 of the AH, the use is not expected to result in significant reduction in water levels on the property of an existing offsite land use to the extent that the designed function of a water body and related surface water management improvements are damaged (not including aesthetic values), damage to agriculture, including damage resulting from reduction in soil moisture resulting from water use, or land collapse or subsidence caused by reduction in water levels associated with water use.

Upper Floridan Aquifer

Impacts on ASR Wells

Land uses that are dependent upon water being on or near land surface and that existed prior to this application are protected from harm. The WWF and SWWF ASR facilities inject fresh Biscayne aquifer water for later retrieval as part of ASR operations. The cone of influence for the Hialeah RO wellfield does not extend to the West and Southwest ASR wells, however the proposed SMH FAS wellfield cone does (Exhibit 26E). In order to assess possible impact as a result of the SMH FAS withdrawals on the ASR operation, MODPATH, a particle tracking post-processing package for MODFLOW (Pollack, 1994) was run. Particles were added directly to the south of the SWWF ASR well model cells. Simulation 5 was run for 30 years first in MODFLOW, and then MODPATH was run in order to assess particle movement. The MODPATH model run was analyzed to assess the impact of SMH and the existing legal users on the SWWF ASR system. After a run of 30 years, particles traveled 365 feet from their original position.

Pursuant to 3.6.2 of the AH, the use is not expected to result in significant reduction in water levels on the property of an existing offsite land use to the extent that the designed function of a water body and related surface water management improvements are damaged (not including aesthetic values), damage to agriculture, including damage resulting from reduction in soil moisture resulting from water use, or

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

land collapse or subsidence caused by reduction in water levels associated with water use.

Migration of Saline Water

Biscayne Aquifer

Inland movement of sea water in Miami-Dade County began in the 1920's and 1930's when canals were constructed that lowered groundwater levels. In the 1940's salinity control structures were installed in the canals as far seaward as possible, which prevented unimpeded inland saltwater flow. In the 1960's other structures were installed along the canals and water levels were stepped down, which lowered water levels at the final "step" before discharging to tide. This resulted in some inland movement of saltwater. Beginning in 1976, additional water was routed to the county, raising water levels along the coast and slowing or reversing inland movement of the saltwater front. In addition, withdrawals have been reduced at coastal wellfields when western wellfields became operational.

The SFWMD operates numerous salinity control structures in Miami-Dade County. The water control levels were discussed in the Water Resource Availability section above. Additional protection for the central wellfields is provided by the construction of a water control structure located on the Ludlum Canal, south of S.W. 88th Street and east of the Alexander Orr wellfield and U.S. Highway 1, completed in May 2004, to further reduce the potential for saltwater intrusion.

Miami-Dade County has a five year cooperative agreement with the USGS to collect water level data from 117 monitoring wells, chloride data from 66 saltwater interface monitoring stations and induction logs from 33 of the wells as part of a saline water intrusion monitor network. Additionally, a total of 36 water level monitoring stations, and one saltwater intrusion monitoring well not funded by MDWASD are sampled by the USGS (See Exhibit 28B). Since 2007, 12 new saline intrusion monitor wells have been installed in the county. Water levels are monitored continuously at some stations, and monthly, every two months, quarterly, semi-annually, or annually for some others. Chloride sampling is done monthly, quarterly, or annually depending on location and induction logs are collected annually for select wells. Current monitoring facilities are listed in Exhibit 28A and are mapped on Exhibits 27A through D.

Of the 48 monitor wells sampled in Miami-Dade County, 16 are east of the 1,000 mg/l isochlor line defined in 2008, to monitor saltwater movement as opposed to being early warning wells. The saline water interface in the Biscayne aquifer, as delineated in 2008 and 2011, can be seen on Exhibit 27A through 27C. All 10 wells east of the saltwater front from the Broward County line to the C-2 Canal have been showing an increasing trend in chloride concentration, which indicates a regional cause for the movement rather than localized well withdrawals. The Permittee's nearest wellfields to the 2011 saltwater front are Miami Springs Lower (1.75 miles) and Hialeah (2.1 miles) in the north system and Alexander Orr (3.1 miles) in the central system. These wellfields are a significant distance from the saltwater front compared to the slow rate

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

of movement and no increases in allocation are authorized from any of the Biscayne aquifer wellfields. In addition, continued monitoring is required in this permit pursuant to Special Condition 37.

For the proposed SMH and Former Plant Wellfields, modeled drawdowns from the three MGD scenario were plotted and analyzed to determine the potential for inducing saline water intrusion. There are regional canals surrounding the wellfield that are maintained at levels to reduce the potential for saline intrusion. The model results indicate that the cone of depression does not extend to these canals (Exhibit 25D). Therefore, the proposed withdrawals will not cause further net inflow of water from the saline source toward the withdrawal points.

Pursuant to Section 3.4 of the AH, the existing and proposed use will not cause saline water intrusion because the use is not expected to cause further net inflow of groundwater from the saline water source toward the withdrawal point.

Upper Floridan Aquifer

Water in the upper Floridan aquifer in southeastern Florida is brackish with chloride and dissolved-solids concentrations generally greater than 1,000 mg/L. Salinity in the Upper Floridan aquifer usually increases with depth. The Lower Floridan aquifer contains water with a salinity similar to that of seawater. Because of the relative lack of development of the FAS in southeastern Florida, the quality of groundwater in the aquifer system is considered to have remained virtually constant during the period 1940 to 1990. USGS WRI 94-4010 mapped the base of the brackish water zone at approximately -1,800 feet bls. The Floridan aquifer wells at the Hialeah and SMH Wellfields are designed to be approximately 1,200 to 1,300 feet bls. Chloride concentrations at the Hialeah RO site are currently about 1,780 mg/l. Chloride concentrations at the proposed SMH wellfield are unknown but are assumed to be similar to the Hialeah RO Wellfield. Increases in salinity will result in an increase the treatment losses and additional withdrawals may become necessary to meet finished water demands. Special Condition 37 requires that the applicant sample for chloride concentration at the production wells to monitor for increases in concentration which could indicate upconing and affect the RO treatment efficiencies (see Exhibits 32A and 32B).

Pursuant to Section 3.4.1 of the AH, the proposed use from the upper Floridan aquifer may cause limited increases in salinity but not to the extent of interfering with presently existing legal users, otherwise harming the resource, or rendering the resource no longer usable by the Permittee.

Wetland Environments

Biscayne Aquifer

This water use modification includes only a reduction in pumpage from the Biscayne aquifer. Therefore, the wetland evaluation completed in 2007 that was conducted for

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

the previous water use permit processed under Application 040511-5, which was also utilized for the previous water use permits processed under Applications 091228-14 and 110511-6, for which the authorized allocations were relatively the same for each permit, has again been utilized for this permit modification with a few minor additions as noted below.

Wetlands were identified within the area of influence of 4 of the 12 Biscayne aquifer wellfields: WWF, SWWF, Snapper Creek wellfield, and Northwest wellfield. These wetlands primarily consist of Category 2 (seasonally inundated) wetlands; however, the WWF and the Northwest wellfield also include Category 3 (temporarily flooded or saturated) which are the most susceptible to harm resulting from hydrologic changes.

To assess Biscayne aquifer withdrawal impacts on groundwater levels within the wellfields, water levels monitoring data was utilized. In addition, calibrated modeling results were also utilized where monitoring data was not available within the area of wetlands. It should be noted that although the hydrology of the wetlands is supported by the surficial aquifer system, the Biscayne aquifer is highly transmissive in the region of these wellfields.

West Wellfield:

For the WWF the modeling predicts that a maximum of 0.5-foot of drawdown could potentially occur underneath approximately 5 acres of Category 3 wetlands located within the area of influence of that wellfield (Exhibit 24A), which is limited to withdrawals of 15 MGD. In 2009, an additional water level monitor well (G-3898) with a continuous water level recorder, was installed to monitor surface water and groundwater levels within the vicinity of the Category 3 wetlands. A review of historical aerial photographs, field surveys and review of pumpage and monitor well data was conducted, which resulted in a determination that no wetland harm had previously occurred from the historic withdrawals from the Biscayne aquifer in the WWF, and no increases are authorized in this permit modification. In addition, it should be noted that withdrawals from the West wellfield are not anticipated to harm wetlands within Everglades National Park (ENP) as the boundaries of ENP are located outside of the area of influence of the modeled water use. Specifically, a "four party" agreement which includes ENP, the District, the State of Florida, and Miami-Dade County was created to provide reasonable assurance that withdrawals from the WWF will not cause harm to the hydrologic resources of ENP (see Exhibit 35A through I). The agreement requires Miami-Dade County to reduce or stop pumpage from the WWF at any time, if ENP determines that harm due to the withdrawals from WWF has occurred, as measured by an existing comprehensive monitoring network within the area.

Southwest and Snapper Creek Wellfields:

For the Southwest and Snapper Creek wellfields, a groundwater monitor well (G-3897) was installed in the southwest portion of the SWWF in 2008, within the vicinity of wetlands, as required by the previous permit processed under Application 040511-

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

5. Under the previous permit processed under Application 110511-6, modeling was conducted to evaluate additional drawdowns within the Southwest wellfield that would result from shifting pumpage from the Alexander Orr wellfield to the Southwest wellfield. The modeling predicted a maximum of 0.2-foot of additional drawdown (beyond that depicted in the previous permit authorized under Application 091228-14) could potentially occur underneath the wetlands (Exhibit 25C).

Northwest Wellfield:

For the Northwest wellfield the modeling predicts that a maximum of 0.5-foot of drawdown could potentially occur underneath approximately 1,000 acres of Category 3 wetlands located within the wellfield area of influence (Exhibit 24A). The 0.5 foot drawdown contour extends approximately 2 miles out from the withdrawal facilities to the edge of the proposed Comprehensive Everglades Restoration Plan (CERP) Dade-Broward Levee/Pennsuco project component. As a result, a groundwater monitor well (G-3818) is located within the wetlands, along with other monitor wells within the vicinity, as depicted on Exhibit 29E. Wetland impacts associated with historical withdrawals in the Northwest wellfield were previously mitigated in 1999 for withdrawals up to 155 MGD. In addition to the mitigation, in 2001 the MDWASD installed two monitor wells in the Pennsuco wetlands, and a water control structure for the Northwest Wellfield Protection Canal, known as the Mid-canal structure and bridge (MCSB), in 2003, in the locations depicted on Exhibit 21. Specifically, the MCSB structure was necessary to prevent drainage of the Pennsuco wetlands, which provided the water needed to maintain water levels in the Northwest Wellfield Protection Canal. Pursuant to Special Condition 26 of the previous permit, the MCSB structure is to be opened simultaneously with the upstream structure located on the L-30 Canal to prevent drainage of the Pennsuco wetland, in accordance with the operation letter included as Exhibit 22.

In order to provide continued reasonable assurance that the wellfield withdrawals will not result in harm to wetlands located within the wellfields area of influence, the Permittee will continue the current water levels network monitoring program in accordance with Exhibits 29A through 29E and 30, and Special Condition 36.

Based upon the above-referenced evaluations and the application of the narrative standard that the hydrologic alteration of the water use shall not adversely impact the values of wetland functions so as to cause harm to the abundance, diversity and habitat of fish, wildlife and listed species, the potential for harm to occur to wetlands as a result of the authorized withdrawal of the recommended allocation is considered minimal.

Upper Floridan Aquifer

The wetlands are separated from the Upper Floridan aquifer well drawdowns by 600 feet of low permeability material. Therefore, the upper Floridan aquifer well withdrawals do not impact the wetlands.

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

Sources of Pollution

Biscayne Aquifer

Hialeah/Preston/Miami Springs area:

Groundwater from the Biscayne aquifer in the vicinity of the Hialeah/Preston/Miami Springs Wellfields is polluted with low levels of volatile organic compounds (VOCs). The wellfields were shut down in 1982 as a consequence. The United States Environmental Protection Agency (USEPA) primary remedial action to clean up the aquifer was to use the wellfields to remove contaminants and provide a water treatment system that uses air stripping. As a consequence, MDWASD constructed a treatment train comprised of 64, 14-foot diameter air stripping towers along with 2 low-lift pumping stations with 9 turbine pumps and piping. Total system design capacity varies from 152 MGD to 256 MGD, depending on the level of contaminants. The USEPA paid for 41 percent of the total project costs. Use of the air stripping towers, initiated in 1992, allowed the Hialeah/Preston/Miami Springs wellfields to begin operation again. These wellfields, along with associated treatment of the groundwater by air stripping, continue to remove VOCs from the Biscayne aquifer in this area.

Northwest Wellfield area:

Groundwater in the Biscayne aquifer beneath the 58th Street Landfill and the Resource Recovery Landfill, which are located approximately 3 miles to the east of the Northwest Wellfield, has been contaminated by leachate generated from these landfills. Due in part to concerns about the potential migration of leachate from these landfills, MDWASD and SFWMD created the Northwest Wellfield Protection Canal Modification system to create and maintain a groundwater divide between the Northwest Wellfield and the landfills (Exhibits 21 and 22). Since completion of the Protection Canal in 1991, groundwater and surface water monitoring performed by Miami-Dade County Regulatory and Economic Resources (RER) have indicated that a groundwater divide has been maintained between the Northwest Wellfield and the contaminant plume. Restrictions on urban development set forth in the Comprehensive Development Master Plan also serve to keep urbanized industrial and commercial activities east of the Turnpike Extension and away from this wellfield. Furthermore, Chapter 24 of the Miami-Dade County Code (MDCC) contains a provision empowering REP to implement emergency water conservation restrictions when such measures are needed to reduce the pumpage of that wellfield and prevent migration of groundwater contamination.

RER's various wellfield protection elements serve to significantly reduce the risk of manmade groundwater contamination being transported to unpolluted portions of the Biscayne aquifer because of wellfield pumpage. Pertinent activities and provisions include the following:

- Surveillance and regulation of operations generating hazardous waste under the provisions of the Miami-Dade County Environmental Protection Ordinance (Chapter 24 of the MDCC)
- Assessments and cleanups of sites with groundwater contamination are enforced

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

under the provisions of Chapter 24 MDCC, with expedited action when the site is within a wellfield protection area.

- Qualified companies are contracted with Miami-Dade County and are available when emergency cleanups are considered necessary.
- Ongoing groundwater quality monitoring is conducted using a network of monitoring wells sited for wellfield and groundwater protection (see Exhibit 30 for a table of monitor wells sampled, Exhibit 31 for sampling frequency and constituents sampled and Exhibit 29A through E for monitor locations)

The recommended allocations are consistent with Miami-Dade County wellfield protection areas and programs. Pursuant to Section 3.5 of the AH, the use is not expected to result in altering the rate or direction of movement of pollutants, if present, to cause significant degradation of surface or groundwater quality through the induced movement of pollutants into a water resource that is not polluted.

Upper Floridan Aquifer

There are no known sources of pollution reported within the Upper Floridan aquifer. Potential pollution sources located near surface are separated from the Upper Floridan Aquifer well drawdowns by 600 feet of low permeability material. Therefore, the Upper Floridan Aquifer well withdrawals are not anticipated to impact the movement of pollutants.

FACILITY OPERATION

All primary wells within each wellfield are rotated for equal use. Each wellfield or group of wellfields has limitations on annual withdrawal rates as conditioned herein. MDWASD has operational flexibility to run the wells at varying daily rates as long as the annual average limits are not exceeded. The only wellfield with daily limitations is the West wellfield, which cannot exceed 15 MGD. In addition, the Medley wells can only be operated 2 hours per month unless authorized for emergency use. Withdrawals from the Medley wells are counted towards the annual limits for the Hialeah/Preston/Miami Springs wellfield group. The maximum monthly withdrawal rate is applied to the total pumpage from all wellfields. A summary of the operation plan in 5 year increments for the Biscayne and Floridan aquifers is shown in Exhibits 10A and 10B. The operational plan for the ASR wells is shown in Exhibit 10B. Injection of up to 25 MGD of Biscayne aquifer water into the ASR wells (15 MGD at the West Wellfield and 10 MGD at the SWWF) would occur annually from June through October. Recovery of water from the ASR wells would occur annually from December through April. The permittee intends to recover almost 100 percent of the volume of injected water with withdrawals that will continue until background Floridan aquifer water quality is encountered.

ADDITIONAL INFORMATION

Regional Issues

Minimum Flows and Levels

ADDITIONAL INFORMATION (CONTINUED)

As part of the conditions for permit issuance in Chapter 373, Florida Statutes (FS), including SFWMD implementing rules, a consumptive use permit applicant must provide reasonable assurances regarding protection of Lower East Coast Everglades and MFL Water Bodies, including the Biscayne aquifer, ENP and the Water Conservation Areas (Everglades/MFL Waterbodies).

Biscayne Aquifer MFL and Prevention Strategy:

The MFLs for the Biscayne aquifer, identifying the point at which further withdrawals would cause significant harm, are set forth in Rule 40E-8.23, Florida Administrative Code (FAC). The Biscayne aquifer is in prevention as the MFL is not expected to be exceeded over the next 20 years providing the Prevention Strategy as identified in Rule 40E-8.421(4), FAC is maintained.

The Permittee has provided reasonable assurances that the proposed allocations will not cause the coastal canal stages to drop below their minimums as no increase in withdrawals from the Biscayne aquifer are proposed. The Permittee has provided reasonable assurances that the proposed allocations are consistent with the saltwater intrusion prevention criteria in 40E-2, F.A.C. and they will be maintaining an adequate saltwater monitoring network. The permit is conditioned to require the applicant to implement alternative water supply development projects. The applicant is also working with the USGS to conduct saltwater intrusion modeling. Based on these findings, the applicant has demonstrated that the proposed use is consistent with the prevention strategy.

Everglades MFL and Recovery Strategy:

The MFLs for Everglades Waterbodies, identifying the point at which further withdrawals would cause significant harm, are set forth in Rule 40E-8.221(3), F.A.C. The Everglades MFL Waterbodies are in recovery as the MFL is not met under current system conditions. The Everglades MFL Recovery Strategy is identified in Rule 40E-8.421(1) and (2), FAC.

The primary component of the MFL recovery strategy is implementation of the Everglades restoration projects, including CERP. The Everglades MFL recovery strategy also includes limitations on impacts to the MFL Waterbodies due to consumptive use permit withdrawals in Section 3.9.1 of the AH.

Section 3.9.1 of the AH requires the permit applicant to demonstrate the impact of the proposed withdrawal will be corrected through implementation of the recovery strategy, including Everglades restoration under CERP, and that the level of impacts from the proposed allocation would not exceed those authorized under the permits under review for renewal. A pumpage value higher than 347 MGD was used in the analysis to develop the recovery strategy and the Everglades water body impacts above 343.7 MGD are being offset by the Permittee. As a result, the MFL recovery plan requirements are met.

ADDITIONAL INFORMATION (CONTINUED)

Regional Water Availability

Allocation restrictions in the Lower East Coast Service Areas 1, 2 and 3, (Section 3.2.1.E of the AH) ensures that continuing and increasing consumptive use withdrawals in identified portions of Miami-Dade, Broward, and Palm Beach Counties are consistent with Everglades restoration and MFL recovery plans, including CERP. Several technical evaluations were conducted to provide reasonable assurances pursuant to Regional Water Availability Rule requirements. These evaluations, along with staff findings and recommendations under these rules, are outlined below:

Pursuant to Section 3.2.1.E of the AH, the requested allocation cannot cause a net increase in the volume or cause a change in timing on a monthly basis of the surface and groundwater withdrawn from the Lower East Coast Everglades Waterbodies over base condition water use withdrawals from such Waterbodies. For public water supplies, the base condition water use is that withdrawn over any consecutive 12 month period during the 5 years preceding April 1, 2006.

Pumpage records for the five years preceding April 1, 2006, were used to establish a base condition water use from the Biscayne aquifer, consistent with Section 3.2.1.E of the AH. It was determined that Miami-Dade County's historic Biscayne aquifer base condition water use was 352.8 MGD. Subsequent modeling performed to maximize wellfield limits and an adjustment for a transfer in base condition allocation to the City of North Miami Beach results in a Modified Base Condition of 349.5 MGD (Exhibit 10C).

Exhibit 10C lists how the historic base condition of 352.8 MGD is broken down by wellfield as well as the adjustments for the City of North Miami Beach and the modeling adjustments which result in an adjusted base condition of 349.5 MGD. Miami-Dade County will meet the remainder of the projected increase in raw water demands (36.5 MGD) from the Floridan aquifer.

In summary, Staff determined that the Alternative Water Supply (AWS) Plan submitted by MDWASD (Exhibit 13) and the reduction in Biscayne aquifer allocation to 349.5 MGD (the modified base condition) provides reasonable assurances that the proposed permit does not cause a net increase in the volume or change in timing on a monthly basis of surface and groundwater withdrawn from the Lower East Coast Everglades over that which occurred under the base condition water use.

CERP Projects:

There are several CERP projects within Miami-Dade County: Biscayne Bay Coastal Wetlands, Broward County Water Preserve Area Water Conservation Area (WCA) 3A/3B Seepage Management, C-111 Spreader Canal, and ENP Seepage Management Project (see Exhibit 34).

The goal of the Biscayne Bay Coastal Wetlands project is to restore coastal wetlands

ADDITIONAL INFORMATION (CONTINUED)

and provide more natural overland freshwater discharges to Biscayne Bay. The project consists of constructing and operating a series of pumps, culverts canal improvements and ditch infilling. The northernmost flow-way will be located near the Deering Estate, the southernmost flow-way will be located in the Cutler wetlands near the C-1 Canal, while a series of culverts and pump stations will be installed between the C-102 and C-103 Canals to re-establish sheet flow to the east of the L-31E Canal. The Cutler location is immediately north of the Miami-Dade South Wastewater Treatment Plant (SDWWTP). In the Florida Department of Environmental Protection (FDEP) Consent Order for the SDWWTP, Miami-Dade County committed to be the local sponsor for the South Miami-Dade Reuse project which will benefit the Biscayne Bay Coastal Wetlands Project by providing new water in the form of reuse to the project. MDWASD plans on providing approximately 89 MGD of wastewater to be reclaimed for this project (see Special Condition 42).

The WCA 3A/3B Seepage Management Project objective is to reduce the rate of seepage from Water Conservation Areas 3A and 3B by increasing groundwater levels by one foot in the seepage management area using water captured from storm events. Withdrawals from the Northwest wellfield were included in the analysis of the project design and no increases from the wellfield are included in this permit renewal.

The ENP Seepage Management Project includes four components: L31N (L-30) Seepage Management Pilot Project, Dade-Broward Levee, Bird Drive Recharge Area and S-356 Structure Relocation. The purpose of the L31N (L30) Seepage Management Pilot Project is to investigate technologies to manage seepage along the L-30 and L-31N canals while providing adequate wet season flows to the WWF and Biscayne Bay. The Dade/Broward Levee component includes building a new Dade/Broward levee and canal to reduce seepage losses to the east from WCA-3B and the Pennsuco wetlands. The Bird Drive Recharge Area's purpose is to recharge groundwater and reduce seepage from ENP by increasing water table elevations east of Krome Avenue.

The C-111 Spreader Canal Western Project's goal is to improve the quantity, timing, and distribution of water delivered to Florida Bay via Taylor Slough, and improve hydroperiods and hydroperiods within the Southern Glades and Model Lands. The future C-111 Spreader Canal Eastern Project is intended to increase sheetflow within the Southern Glades and Model Lands as a means of more naturally delivering water to Florida Bay. There are no MDWASD withdrawals in the vicinity of the C-111 Spreader Canal projects.

Based on best available information, it is reasonable to assume that negative impacts to CERP projects will not occur as a result of this renewal. Pursuant to Special Condition 45, if the use of water becomes inconsistent with implementation of CERP or causes harm to a CERP project, the permit shall be modified.

ADDITIONAL INFORMATION (CONTINUED)

Monitoring Plan:

The Permittee currently has a water level and water quality monitoring program conducted by the USGS and Miami-Dade RER, respectively. The water level data are used to monitor impacts of withdrawals on wetlands, existing users and the regional canal system. The water quality monitoring program determines water quality within the wellfields and identifies groundwater contaminants. The USGS also collects chloride data from a series of wells along the coast to monitor for saline water intrusion. Six existing and one proposed FAS wells are sampled monthly for chlorides and have continuous recorders for potentiometric heads. Pursuant to Special Conditions 36 and 37, MDWASD submits annual monitoring program summary reports. The annual report summarizes hydrologic and water quality conditions ascertained from the monitoring data collected. The report includes review and analysis of the data collected and recommendations regarding the monitoring network.

Water Reservations

Nearshore Central Biscayne Bay Water Reservation:

The Project is located within the portion of Miami-Dade County which covers the water reservation area for Biscayne Bay as identified in Rules 40E-10.021 and 40E10.061, FAC. The Project is withdrawing groundwater which, in accordance with Section 3.11.3 of the AH, is not considered a withdrawal of reserved water.

Project Site Issues

Legal Control and Land Use

The Permittee maintains legal control and/or has legal access to all facilities in its service area.

Existing and Proposed Service Area and Interconnects:

MDWASD supplies treated water on a volume basis to most of the municipally owned water utilities of Miami-Dade County, with the exceptions of Florida City and North Miami Beach and a portion of the water requirements of the City of North Miami. A map showing the MDWASD Service Areas is presented as Exhibit 2B. Exhibit 11 lists the Miami-Dade wholesale customers and water delivered for the years 2008 through 2014. For those municipalities that distribute the MDWASD water themselves, all have a large user agreement for the duration of this permit except the City of Hialeah. The City of Hialeah has provided a letter of intent to sign an agreement and will be required to complete the agreement within six months of permit issuance, pursuant to Special Condition 38.

The Hialeah-Preston and Alexander Orr, Jr. WTPs are connected via their distribution systems (Exhibit 2B). There is no direct, metered interconnect between the two systems, however, it is estimated that approximately 40 MGD of finished water can be transferred between the systems. The 5 existing WTPs of the South Miami-Dade Service Area currently share a 48-inch interconnection with the Alexander Orr Jr.

ADDITIONAL INFORMATION (CONTINUED)

WTP. The two proposed wellfields are to be added to the South Miami-Dade Service Area. An interconnection to the Alexander Orr Jr. WTP system is planned for the future South Miami-Dade Membrane and RO Plants. There are also emergency interconnects to adjacent utilities in the cities of North Miami, North Miami Beach and Homestead (Exhibits 12A through C).

Facilities:

Hialeah-Preston WTP: The John E. Preston WTP-Hialeah WTP has a combined rated capacity of 225 MGD. The total installed capacity for Hialeah-Preston WTPs is 235 MGD. The Hialeah and John E. Preston WTPs treatment process includes primarily lime softening, disinfection, and filtration.

Hialeah RO WTP: Phase 1 of the Hialeah RO Plant was completed in December, 2013. Of the 10 MGD produced, 5 MGD is routed to the MDWASD transmission line through a 36-inch line along NW 170 Street, and enters the MDWASD transmission pipelines via connection at 179th Street and NW 87th Ave. Five MGD is routed to the City of Hialeah transmission system, and routed through a 30-inch line from NW 166th Street, down south along NW 97th Ave, and will enter into the City of Hialeah system at NW 154th Street and NW 97th Ave. The design build-out of the Hialeah RO plant is for a capacity to treat 13.3 MGD of raw water to produce 10 MGD of finished water (Exhibit 10B).

Alexander Orr: The Alexander Orr, Jr. WTP has a rated capacity of 214.74 MGD and a total installed capacity of 256 MGD. The WTP utilizes lime softening with activated sodium silicate, recarbonation, chlorination, ammoniation, and filtration.

South Miami-Dade: The existing five wellfields in the South Miami-Dade area have a treatment facility that disinfects the raw water by chlorination. The Leisure City facility has a design flow of 6.48 MGD. The DERM-rated capacity for the Newton Water Plant, the Elevated Tank facility, the Everglades Labor Camp Water Plant, and the Naranja Water Plant are 2.01 MGD, 1.44 MGD, 0.96 MGD, and 1.38 MGD respectively. The future South Miami-Dade membrane and RO WTP initial design is with a capacity to treat 26.33 MGD of raw water (23.33 MGD FAS and 3 MGD Biscayne aquifer) and produce 19.5 MGD of finished water. The proposed South Miami Heights RO treatment plant will have a design finished water capacity of 17.5 MGD (23.3 MGD raw) by January 2020.

Water Conservation Plan

The elements of the water conservation plan are documented in Exhibit 18.

As part of the Interim Consumptive Use Agreement, the Permittee was required to develop a 20-year water conservation plan that included water reduction goals, actions and funding requirements to achieve the goals and milestone dates for implementation of the actions. The Permittee used the new goal-based Conserve

ADDITIONAL INFORMATION (CONTINUED)

Florida program developed by the FDEP in conjunction with the states five water management districts. The County's plan was developed for the region served by MDWASD as well as the 15 water utilities that receive wholesale water from MDWASD. Details of the actions, costs and timelines can be found in Exhibit 19A through E. The estimated reduction in demands over the life of the plan is shown in Exhibit 20 and the allocations have been adjusted to include the effects of the conservation program. Special Condition 17 requires implementation of the plan along with annual reporting of progress and 10-year audits to determine if water use adjustments are necessary.

Water Use Accounting

The Permittee uses flow meters to account for their water use. Pursuant to Special Condition 11, the Permittee shall equip any new facilities with a SFWMD approved water use accounting system before use. Pursuant to Special Condition 12, the Permittee shall recalibrate each water use accounting system every five years from the last calibration date for the duration of the water use permit and submit a record of the calibration to the SFWMD. The Permittee is advised to review Exhibit 36 for the next calibration due dates.

Permit Reporting Requirements

This water use permit has numerous reporting requirements listed as Special Conditions. The Permittee is advised to read the Special Conditions and understand the data submittal requirements and frequencies to the SFWMD.

Potential Use of Reclaimed Water

Alternative Water Supplies:

The proposed permit requires the implementation of approximately 145 MGD of alternative water supplies during the next 10 years. These sources include the Floridan aquifer water to be treated with RO to produce 27.5 MGD of finished water (Exhibit 13), and reuse of at least 117.5 MGD of highly treated wastewater to reduce ocean discharges and offset Everglades impacts and for other beneficial uses. In addition, approximately 16.45 MGD of reclaimed water is currently being reused for industrial and irrigation projects (Exhibit 14).

In addition, this permit allows, under extreme wet conditions, the Permittee to request to store excess stormwater within the Floridan aquifer ASR wells. Excess stormwater is that deemed not required to achieve the restoration benefits to the Everglades Waterbodies pursuant to the CERP and the Acceler8 program. Available stormwater will be identified pursuant to Section 3.2.1.E.(5)(e) of the AH.

Use of Reclaimed Water:

Staff evaluated whether the Permittee's proposed use of water is consistent with the public interest and is reasonable-beneficial. In determining consistency with the public

ADDITIONAL INFORMATION (CONTINUED)

interest, Staff recognized the need to promote the availability of sufficient water for existing uses, future reasonable-beneficial public water supply uses, and natural systems.

The Permittee's withdrawal and use of water for public water supply impacts water supplies in the Greater Everglades, the Biscayne aquifer, and Biscayne Bay, through interception of seepage and surface water discharges. Once the water is distributed and used by the customer, it is treated and disposed of via deep well injection or ocean outfall. During the 12 month period ending in November 2014, the average daily rate of disposal for water used by MDWASD was 315 MGD (145 MGD disposed via deep well and 170 MGD disposal via ocean outfall), which nearly equals the volume of raw fresh water withdrawn from the Biscayne aquifer. By 2033, the wastewater flow is estimated to be 355 MGD.

The use of water from the Biscayne aquifer only once (especially withdrawn from sources recharged by the Everglades system) is considered inefficient under the reasonable-beneficial use test and inconsistent with the public interest, under Section 373.223, FS. In addition, the State Water Resource Implementation Rule (Rule 62-40, FAC) and District consumptive use rules require that reclaimed water be used when technically, environmentally and economically feasible.

To resolve this issue and other permit requirements, working with MDWASD, a series of alternative sources have been identified to meet the County's future needs, while increasing the use of reclaimed water. Alternative sources include the development of Floridan wells, implementation of a strong conservation program developed using the Conserve Florida Guide (a joint initiative of FDEP, the water management districts, and others), and the high level treatment and disinfection of wastewater for reuse including aquifer recharge. Design of the West WRP is ongoing, while on hold for the Central and North plants pending evaluation of reuse options for the ocean outfall legislation (see discussion below).

Additional filtration and high level disinfection requirements for wastewater treatment has been required at the South District WTP recently imposed by the FDEP and USEPA and will result in a significant increase in the amount of reclaimed water that will be made available for reuse (for some applications, additional treatment may be required). Additionally, Chapter 2008-232, Laws of Florida, requires sixty percent of water previously discharged out the existing North and Central WWTP ocean outfalls (117.5 MGD) to be beneficially reused by 2025.

Typically, reclaimed water is treated to levels sufficient for irrigation of public access areas such as golf courses and other landscaped areas pursuant to Part III of Chapter 62-610, FAC. See Exhibit 15 for a map of public access reuse lines. For some applications of reclaimed water proposed by the permittee it will be necessary to treat wastewater to levels beyond the public access irrigation level of treatment. Each level

ADDITIONAL INFORMATION (CONTINUED)

of treatment will be determined based on the requirements of the USEPA, FDEP and any applicable County requirements.

In order to meet the reasonable-beneficial use and public interest tests, the Permittee is proposing to implement at least 117.5 MGD of reuse projects by the end of the year 2025 that return fresh water to the hydrologic cycle in a manner that provides for beneficial use. See Exhibit 14 for a list of the reuse projects. These projects include the potential use of reclaimed water to recharge the FAS and the use of up to 90 MGD of highly treated reclaimed water for cooling for the FPL nuclear and gas powered plants at Turkey Point beginning in 2022. This 117.5 MGD meets the minimum requirement of the ocean outfall legislation. In addition, 16.45 MGD of existing reuse projects serve industrial and irrigation users (See Exhibit 14).

In addition, pursuant to Special Condition 42, requires MDWASD, in consultation with the District, the FDEP, and Biscayne Bay National Park, to come to an agreement on a rehydration project for the Biscayne Bay Coastal Wetlands project on or before April 15, 2015. In the event the parties do not reach agreement on the feasibility by April 15, 2015, the Permittee shall begin development of an alternate reuse project from the South District WWTP and shall provide the District with a proposal for an alternate project including a conceptual design and schedule for implementation on or before March 15, 2016.

Based on the above, the Permit includes detailed Special Conditions (Special condition 39) requiring completion of feasibility pilot tests and implementation of projects for the purpose of assuring that the County's use of water is reasonable-beneficial and in the public interest. If any of the identified reuse projects are determined to be infeasible, the Permittee shall timely propose and implement SFWMD approved alternatives that return freshwater to the system for meeting future reasonable-beneficial uses that are consistent with the public interest.

In addition, Section 2.2.4.A of the AH requires utilities that control WTPs that have determined the use of reclaimed water is feasible in accordance with Section 403.064, FS, to provide the SFWMD with: a) the reuse feasibility study, b) the schedule for implementation of reuse, c) documentation of the amounts of uncommitted reclaimed water, and d) information regarding any local ordinances concerning the use of reclaimed water. This information, which is to be updated annually, is used by the District to assist in the implementation of the utility's reuse plan by directing other water users to the utility's reclaimed supplies. Per Special Condition 39, the Permittee shall provide annual updates regarding the County's reuse feasibility plan implementation.

Furthermore, staff recommends that Miami-Dade County continue to pursue grants, loans and other publicly funded sources of money to assist with local implementation of reclaimed water projects considered in the public interest. Such money sources may include the SFWMD's Alternative Water Supply Funding Program, other state funding

ADDITIONAL INFORMATION (CONTINUED)

appropriations and CERP federal cooperative funding. However, failure to secure funding from any or all such external sources does not relieve the County of responsibility for compliance with all permit conditions.

Permit Duration

Pursuant to Section 1.5.2, AH, the Biscayne aquifer is a source of limited availability to the extent that withdrawals result in induced seepage from the Central and Southern Florida Project. The adjusted base condition water use (349.5 MGD), reflects the demand of the population existing at the time of permit renewal and thus may be authorized for 20 years. As a result, the permit duration for such increase may be up to 20 years.

The Floridan aquifer is not a source of limited availability and therefore the permit duration may be up to 20 years for this source, pursuant to Section 1.5.2, AH.

Staff recommends a water use permit duration of 20 years as conditioned herein.

ENVIRONMENTAL RESOURCE PERMIT STATUS:

Not Applicable

RIGHT OF WAY PERMIT STATUS:

Not Applicable

RECOMMENDATIONS

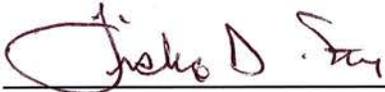
Project Name: MIAMI-DADE CONSOLIDATED PWS
Application Number: 140627-12
Permit Number: 13-00017-W

RECOMMENDATION

Authorizing: The continued use of groundwater from the Upper Floridan aquifer and Biscayne aquifer for Public water supply for the MDWASD Service Area serving 2,642,929 persons in the year 2033 with an average finished water per capita use rate of 137.2 gallons per day per person and a maximum monthly to average monthly pumping ration of 1.05:1 with an annual allocation of 140,915.50 million gallons.

STAFF EVALUATION

REVIEWER:

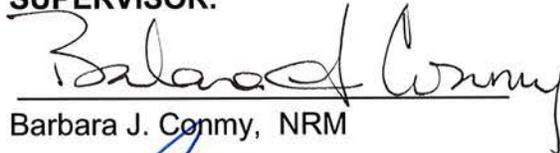


Trisha Stone, NRM

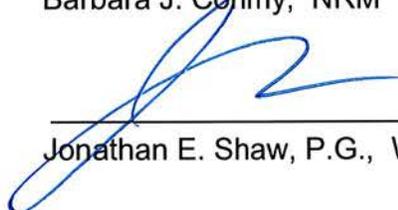


John A. Lockwood, P.G., WU

SUPERVISOR:



Barbara J. Conmy, NRM



Jonathan E. Shaw, P.G., WU

CONSULTING HYDROGEOLOGIST:



Simon Sunderland, P.G.

Date: February 3, 2015

WATER USE BUREAU CHIEF:



Maria C. Clemente, P.E.

Date: 2/4/15

SPECIAL PERMIT CONDITIONS

1. This permit is issued to:

MIAMI-DADE WATER AND SEWER DEPARTMENT
P O BOX 330316
MIAMI, FL 33233-0316

2. This permit shall expire on February 9, 2035.

3. Use classification is:

Public Water Supply
Aquifer Storage And Recovery

4. Source classification is:

Groundwater from:
Biscayne Aquifer
Upper Floridan Aquifer

5. Allocation:

Total annual allocation is 140,915.50 million gallons (MG). (386.07 MGD)

Total maximum monthly allocation is 12,330.11 million gallons (MG).

Allocation from a specific source (aquifer, waterbody, facility, or facility group):

Maximum annual allocation from Upper Floridan Aquifer shall not exceed 13,348.05 million gallons (MG). (36.60 MGD).

Maximum annual allocation from Biscayne Aquifer shall not exceed 127,567.50 million gallons (MG). (349.50 MGD).

Maximum monthly allocation from Upper Floridan Aquifer shall not exceed 1,167.95 million gallons (MG).

Maximum monthly allocation from Biscayne Aquifer shall not exceed 11,162.16 million gallons (MG).

These allocations represent the amount of water required to meet the water demands as a result of a rainfall deficit during a drought with the probability of recurring one year in ten. The Permittee shall not exceed these allocations in hydrologic conditions less than a 1-in-10 year drought event. Compliance with the annual allocation is based on the quantity withdrawn over a 12-month time period. Compliance with the maximum

SPECIAL PERMIT CONDITIONS

monthly allocation is based on the greatest quantity withdrawn in any single month. The annual allocation expressed in GPD or MGD is for informational purposes only.

If the rainfall deficit is more severe than that expected to recur once every ten years, the withdrawals shall not exceed that amount necessary to continue to meet the reasonable-beneficial demands under such conditions, provided no harm to the water resources occur and:

1. All other conditions of the permit are met; and
2. The withdrawal is otherwise consistent with applicable declared Water Shortage Orders in effect pursuant to Chapter 40E-21, F.A.C.

6. Withdrawal facilities:

Groundwater - Proposed:

- 1 - 24" X 50' X 2800 GPM Well Cased To 45 Feet
- 7 - 24" X 1200' X 2430 GPM Wells Cased To 1100 Feet
- 1 - 24" X 50' X 1400 GPM Well Cased To 45 Feet
- 3 - 24" X 72' X 1400 GPM Wells Cased To 45 Feet
- 8 - 17" X 1490' X 1400 GPM Wells Cased To 1080 Feet

Groundwater - Existing:

- 2 - 24" X 100' X 7500 GPM Wells Cased To 50 Feet
- 3 - 48" X 88' X 7500 GPM Wells Cased To 33 Feet
- 5 - 17" X 1490' X 1400 GPM Wells Cased To 1080 Feet
- 1 - 4" X 74' X 0 GPM Well Cased To 63.5 Feet
- 1 - 18" X 65' X 1500 GPM Well Cased To 50 Feet
- 20 - 14" X 115' X 2500 GPM Wells Cased To 80 Feet
- 4 - 24" X 100' X 4900 GPM Wells Cased To 35 Feet
- 10 - 48" X 80' X 10420 GPM Wells Cased To 46 Feet
- 1 - 12" X 40' X 800 GPM Well Cased To 35 Feet
- 1 - 42" X 68' X 10000 GPM Well Cased To 54 Feet
- 1 - 6" X 30' X 400 GPM Well Cased To 25 Feet
- 1 - 16" X 50' X 1600 GPM Well Cased To 40 Feet
- 1 - 30" X 115' X 4170 GPM Well Cased To 80 Feet
- 1 - 18" X 66' X 1500 GPM Well Cased To 53 Feet
- 1 - 14" X 115' X 3800 GPM Well Cased To 80 Feet
- 1 - 30" X 1250' X 3500 GPM Well Cased To 845 Feet
- 6 - 42" X 107' X 7000 GPM Wells Cased To 66 Feet
- 1 - 24" X 70' X 3470 GPM Well Cased To 35 Feet
- 7 - 16" X 100' X 4170 GPM Wells Cased To 40 Feet

SPECIAL PERMIT CONDITIONS

2 - 24" X 70' X 6945 GPM Wells Cased To 35 Feet
1 - 42" X 68' X 8500 GPM Well Cased To 60 Feet
1 - 17" X 1490' X 1400 GPM Well Cased To 1150 Feet
4 - 40" X 100' X 10420 GPM Wells Cased To 57 Feet
1 - 30" X 1210' X 3500 GPM Well Cased To 835 Feet
1 - 42" X 68' X 8500 GPM Well Cased To 54 Feet
1 - 18" X 55' X 1500 GPM Well Cased To 45 Feet
1 - 42" X 107' X 7000 GPM Well Cased To 69 Feet
4 - 24" X 108' X 8300 GPM Wells Cased To 50 Feet
2 - 12" X 40' X 1600 GPM Wells Cased To 35 Feet
4 - 24" X 104' X 6940 GPM Wells Cased To 54 Feet
1 - 12" X 35' X 1200 GPM Well Cased To 30 Feet
1 - 48" X 80' X 10416.67 GPM Well Cased To 46 Feet
1 - 12" X 35' X 800 GPM Well Cased To 30 Feet
1 - 30" X 115' X 2500 GPM Well Cased To 80 Feet
1 - 42" X 68' X 10000 GPM Well Cased To 60 Feet
1 - 18" X 55' X 1500 GPM Well Cased To 42 Feet
6 - 20" X 100' X 4900 GPM Wells Cased To 40 Feet
1 - 16" X 100' X 7500 GPM Well Cased To 40 Feet
1 - 18" X 50' X 500 GPM Well Cased To 40 Feet
1 - 30" X 1200' X 3500 GPM Well Cased To 765 Feet
1 - " X 60' X 0 GPM Well Cased To 55 Feet
1 - 30" X 1300' X 3500 GPM Well Cased To 850 Feet
1 - 30" X 1200' X 3500 GPM Well Cased To 760 Feet

7. The Permittee shall submit all data as required by the implementation schedule for each of the permit conditions to: SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, MSC 9611, P.O. Box 24680, West Palm Beach, FL 33416-4680.
8. The Permittee must submit the appropriate application form incorporated by reference in Rule 40E-2.101, F.A.C., to the District prior to the permit expiration date in order to continue the use of water.
9. The Permittee shall secure a well construction permit prior to construction, repair, or abandonment of all wells, as described in Chapter 40E-3, F.A.C.
10. Permittees, who are dependent on other sources of water supply such as reclaimed water or water sale agreements to meet a portion of their demands, shall include the monthly volumes from all other sources in the report to the District, unless the use of those sources is reported to another state agency, in which case the District will obtain the water use information from said agency. The water accounting method and means of calibration shall be stated on each report.

SPECIAL PERMIT CONDITIONS

11. Prior to any withdrawals at the project, the Permittee shall provide the results of the calibration testing of the identified water accounting method(s) and equip all existing and proposed withdrawal facilities with approved water use accounting method(s) pursuant to Subsection 4.1.1 of the Applicant's Handbook for Water Use Permit Applications.
12. Every five years from the date of last calibration, the Permittee shall submit re-calibration data for each withdrawal facility.
13. Monthly withdrawals for each withdrawal facility shall be reported to the District semi-annually. The water accounting method and means of calibration shall be stated on each report.
14. The Permittee shall notify the District within 30 days of any change in service area boundary that results in a change in demand that affects its permitted allocation. The allocation shall be modified to effectuate such change.
15. If at any time there is an indication that the well casing, valves, or controls leak or have become inoperative, repairs or replacement shall be made to restore the system to an operating condition. Failure to make such repairs shall be cause for filling and abandoning the well, in accordance with procedures outlined in Chapter 40E-3, F.A.C.
16. The Permittee shall maintain an accurate flow meter at the intake of the water treatment plant for the purpose of measuring daily inflow of water.

Permittee shall maintain a calibrated flow meter(s) at the intake (raw water) and discharge (treated water) points within the Hialeah/Preston, Alexander Orr, and proposed Hialeah RO and South Miami Heights water treatment plants for the purpose of measuring treatment losses and shall submit monthly data semi-annually as required pursuant to Special Condition 13.

17. The Standard Water Conservation Plan described in Subsection 2.3.2.F.1.a of the Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District and the Staff Report, must be implemented in accordance with the approved implementation schedule described in the following exhibit:

The Water Conservation Plan is contained in Exhibit 18. The permittee shall submit an annual report covering water conservation activities during the prior calendar year by April 15 of each year describing water conservation activities for the year including expenditures, projects undertaken and estimated water savings.

18. The Permittee shall notify the District within 30 days of entering into an inter-local

SPECIAL PERMIT CONDITIONS

agreement, contract, or other similar instrument to deliver or receive water outside of its service area or to serve a demand not identified to determine the allocation described in this permit. A copy of such agreement shall be provided to the District. The monthly volume of water delivered and/or received via each inter-local agreement, contract, or other similar instrument shall be submitted to the District at the same reporting frequency as the withdrawals for each withdrawal facility required in this permit.

19. The Permittee shall implement the wellfield operating plan submitted in support of the permit application, as described in the District staff report.
See Exhibit 10

20. The Permittee shall determine unaccounted-for distribution system losses. Losses shall be determined for the entire distribution system on a monthly basis. Permittee shall define the manner in which unaccounted-for losses are calculated. Reports shall be submitted to the District on a yearly basis and are due by April 30th of each year.

In the event that the annual unaccounted-for distribution system losses, as defined by Section 2.3.2.F.2.c, of the Applicants Handbook for Water Use Permit Applications [AH], exceeds 10 percent, the permittee shall include in the annual report a description of additional actions which will be implemented the following year(s) to reduce the losses to less than ten percent.

21. Public water utilities that control, either directly or indirectly, a wastewater treatment plant, and which have determined pursuant to Section 403.064, F.S., that use of reclaimed water is feasible, must provide the District with annual updates of the following information: 1) the status of distribution system construction, including location and capacity of lines; 2) a summary of uncommitted supplies for the next year; 3) copies of any new or amended local mandatory reclaimed water reuse zone ordinances; and 4) a list of end-users who have contracted to receive reclaimed water and the agreed upon quantity of water to be delivered.

22. The Permittee shall maintain an accurate flow meter at the point of discharge from the treatment plant for the purpose of measuring the daily flow of water.

Permittee shall maintain a calibrated flow meter(s) at the intake (raw water) and discharge (treated water) points within the Hialeah/Preston, Alexander Orr, and proposed Hialeah RO and South Miami Heights water treatment plants for the purpose of measuring treatment losses and shall submit monthly data semi-annually as required pursuant to Special Condition 13.

23. Pursuant to Section 373.236(4), F.S., every ten years from the date of permit issuance, the Permittee shall submit a water use compliance report for review and approval by District Staff to SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, MSC

SPECIAL PERMIT CONDITIONS

9611, P.O. Box 24680, West Palm Beach, FL 33416-4680.

(A) The results of a water conservation audit that documents the efficiency of water use on the project site using data produced from an onsite evaluation conducted. In the event that the audit indicates additional water conservation is appropriate or the per capita use rate authorized in the permit is exceeded, the permittee shall propose and implement specific actions to reduce the water use to acceptable levels within timeframes proposed by the permittee and approved by the District.

(B) A comparison of the permitted allocation and the allocation that would apply to the project based on current District allocation rules and updated population and per capita use rates. In the event the permit allocation is greater than the allocation provided for under District rule, the permittee shall apply for a letter modification to reduce the allocation consistent with District rules and the updated population and per capita use rates to the extent they are considered by the District to be indicative of long term trends in the population and per capita use rates over the permit duration. In the event that the permit allocation is less than allowable under District rule, the permittee shall apply for a modification of the permit to increase the allocation if the permittee intends to utilize an additional allocation, or modify its operation to comply with the existing conditions of the permit.

3. Summary of the current and previous nine years progress reports for implementation of the Alternative Water Supply Plan and any modifications necessary to continue to meet the Plan requirements and conditions for issuance.
4. Information demonstrating that the conditions for issuance of the permit are being complied with, pursuant to Special Condition 45 and Section 373.236, F.S.
5. Updates or amendments to the County's reuse plan.
24. The Permittee shall provide annual status reports to the District that summarizes the Aquifer Storage and Recovery cycle testing activities. Reports shall be submitted to the District on a yearly basis and are due by April 30th of each year.
25. The Permittee shall submit to the District an updated "Summary of Groundwater (Well) Facilities" table ("Section IV - Sources of Water", Water Use Permit Application Form 1379) within 90 days of completion of the proposed wells identifying the actual total and cased depths, pump manufacturer and model numbers, pump types, intake depths and type of meters.
26. The permittee shall operate surface water control structure known as the Mid-canal structure and bridge in accordance with the approved operational plan included in Exhibit 22. In addition, whenever this structure is opened for the purpose of raising water in the Wellfield Protection Canal down stream of the structure, the upstream structure that delivers water from the L-30 canal shall be opened in a manner to

SPECIAL PERMIT CONDITIONS

deliver equal volumes to those passed through the Mid-canal structure and bridge. The permittee shall submit operation and flow data logs regarding both structures to the District semi-annually.

27. The Permittee is authorized to exercise the emergency wells at the Medley Wellfield for a total of two hours per month as needed for bacterial clearance and pump maintenance. Operation of the emergency wells at the Medley Wellfield for more than this amount shall require prior approval from SFWMD. Pumpage data shall be collected and report in accordance with Special Condition 13.
28. No more than 15 MGD shall be withdrawn from the West Biscayne aquifer Wellfield on any given day.
29. No more than 25,550 MGY shall be withdrawn during any 12 month consecutive period from the combined Hialeah, Preston, Medley and Miami Springs Biscayne aquifer wellfields.
30. No more than 7,993 MGY shall be withdrawn during any 12 month consecutive period from the Snapper Creek Wellfield.
31. No more than 39,931 MGY shall be withdrawn during any 12 month consecutive period from the Southwest Biscayne aquifer Wellfield.
32. No more than 67,999 MGY shall be withdrawn during any 12 month consecutive period from the combined West, Southwest Snapper Creek and Alexander Orr Biscayne aquifer wellfields.
33. No more than 1,095 MGY shall be withdrawn during any 12 month consecutive period from the South Miami Heights Wellfield.
34. No more than 1,752 MGY shall be withdrawn during any 12 month consecutive period from the combined Everglades Labor Camp and Newton wellfields.
35. No more than 1,571 MGY shall be withdrawn during any 12 month consecutive period from the combined Elevated Tank, Leisure City and Naranja wellfields.
36. The Permittee shall continue to submit monitoring data in accordance with the approved water level monitoring program for this project. The existing monitoring program is described in Exhibits 30 and 32B.
37. The Permittee shall continue to submit monitoring data in accordance with the

SPECIAL PERMIT CONDITIONS

approved saline water intrusion monitoring program for this project.
See exhibits 28A and 32B for a list of monitor wells and required sampling schedule.

The permittee shall submit annual Monitoring Program summary reports. The annual report will summarize the status of the project to update the salt front and install new monitor wells.

38. Within six months of permit issuance, an executed large user water agreement with the City of Hialeah shall be submitted to the District. In the event that the final agreement is for volumes less than those used in the formulation of the allocations in this permit, the allocations shall be reduced through a letter modification.
39. The permittee shall update the District on the status of reuse projects in Exhibit 14 on an annual basis.
40. The permittee will develop alternative water supplies in accordance with the schedules described in Exhibit 13.

The permittee will provide annual updates of the status of all alternative water supply projects (per the timeframes contained in Special Condition 44). The status report shall include work completed to date, expenditures and any anticipated changes in the timelines.

41. In the event that a milestone specified in the alternative water supply schedule and plan contained in Exhibit 13 is going to be missed, the permittee shall notify the Executive Director of the District in writing explaining the nature of the delay, actions taken to bring the project back on schedule and an assessment of the impact the delay would have on the rates of withdrawals from the Everglades water bodies and associated canals as defined in SFWMD consumptive use permitting rules. The District will evaluate the situation and take actions as appropriate which could include: a.) granting an extension of time to complete the project (if the delay is minor and doesn't affect the Everglades Waterbodies or otherwise violates permit conditions), b.) take enforcement actions including consent orders and penalties, c.) modify allocations contained in this permit from the Biscayne aquifer including capping withdrawal rates until the alternative water supply project(s) are completed (in cases where the delay would result in violations of permit conditions) or d.) working with the Department of Community Affairs to limit increase demands for water until the alternative water supply project is completed.
42. For rehydration of Biscayne Coastal Wetlands, in consultation with the District, the FDEP and Biscayne Bay National Park, upon completion of the pilot testing program, the parties shall agree on the water quality treatment required and the feasibility, as

SPECIAL PERMIT CONDITIONS

defined in Section 2.2.4 of the Applicants Handbook for Water Use Permit Applications, of this project on or before April 15, 2015. Extension of this deadline may be issued in writing by the District upon demonstration of good cause such as events beyond the control of the permittee or after consideration of the results/data collected, the District determines that additional testing is necessary. In determining the water quality needed, the parties will consider State and Federal water quality discharge standards, the volume and timing of water to be delivered to Biscayne Bay and the location of delivery. In the event the parties do not reach agreement on the feasibility by April 15, 2015, the Permittee shall begin development of an alternate reuse project from the South District wastewater facility and shall provide the District with a proposal for an alternate project including a conceptual design and schedule for implementation on or before March 15, 2016.

43. The permittee may request temporary authorization from the District to capture and store stormwater via withdrawals from the permitted Biscayne aquifer production wells, for storage within the Floridan aquifer system consistent with their FDEP issued Underground Injection Control permits. The District will consider the availability of stormwater that is not otherwise needed for environmental protection or enhancement and is in no way bound to authorize such requests. All such requests shall be made in writing to the Director of Water Use Regulation.
44. All annual reports required in these Special Conditions shall address activities that occurred during a calendar year and shall be submitted to Water Use Compliance on or before April 15th of the following year.
45. If it is determined that the conditions for permit issuance are no longer met for the 20 year permit duration, the permittee shall obtain a modification of the Permit from the District as necessary to come into compliance with the conditions for permit issuance. Such conditions for permit issuance include minimum flows and levels, water reservations, and other conditions ensuring the use does not cause water resource harm and is consistent with the objectives of the District, including implementation of the Comprehensive Everglades Restoration Plan.
46. The permittee shall operate the West Wellfield in accordance with the Memorandum of Understanding between the U.S. Department of the Interior, the Governor of the State of Florida, Miami Dade County and the District incorporated in Exhibit 35.

STANDARD PERMIT CONDITIONS

1. All water uses authorized by this permit shall be implemented as conditioned by this permit, including any documents incorporated by reference in a permit condition. The District may revoke this permit, in whole or in part, or take enforcement action, pursuant to Section 373.136 or 373.243, F.S., unless a permit modification has been obtained to address the noncompliance.

The Permittee shall immediately notify the District in writing of any previously submitted material information that is later discovered to be inaccurate.

2. The Permittee is advised that this permit does not relieve any person from the requirement to obtain all necessary federal, state, local and special district authorizations.
3. The Permittee shall notify the District in writing within 30 days of any sale, transfer, or conveyance of ownership or any other loss of permitted legal control of the Project and/or related facilities from which the permitted consumptive use is made. Where Permittee's control of the land subject to the permit was demonstrated through a lease, the Permittee must either submit a new or modified lease showing that it continues to have legal control or documentation showing a transfer in control of the permitted system/project to the new landowner or new lessee. All transfers of ownership are subject to the requirements of Rule 40E-1.6107, F.A.C. Alternatively, the Permittee may surrender the consumptive use permit to the District, thereby relinquishing the right to conduct any activities under the permit.
4. Nothing in this permit should be construed to limit the authority of the District to declare a water shortage and issue orders pursuant to Chapter 373, F.S. In the event of a declared water shortage, the Permittee must adhere to the water shortage restrictions, as specified by the District. The Permittee is advised that during a water shortage, reports shall be submitted as required by District rule or order. The Permittee is advised that during a water shortage, pumpage, water levels, and water quality data shall be collected and submitted as required by District orders issued pursuant to Chapter 40E-21, F.A.C.
5. This permit does not convey to the Permittee any property rights or privileges other than those specified herein, nor relieve the permittee from complying with any applicable local government, state, or federal law, rule, or ordinance.
6. With advance notice to the Permittee, District staff with proper identification shall have permission to enter, inspect, observe, collect samples, and take measurements of permitted facilities to determine compliance with the permit conditions and permitted plans and specifications. The Permittee shall either accompany District staff onto the property or make provision for access onto the property.

7. A. The Permittee may seek modification of any term of an unexpired permit. The Permittee is advised that Section 373.239, F.S., and Rule 40E-2.331, F.A.C., are applicable to permit modifications.

B. The Permittee shall notify the District in writing 30 days prior to any changes to the project that could potentially alter the reasonable demand reflected in the permitted allocation. Such changes include, but are not limited to, change in irrigated acreage, crop type, irrigation system, large users agreements, or water treatment method. Permittee will be required to apply for a modification of the permit for any changes in permitted allocation.

8. If any condition of the permit is violated, the permit shall be subject to review and modification, enforcement action, or revocation pursuant to Chapter 373, F.S.

9. The Permittee shall mitigate interference with existing legal uses that was caused in whole or in part by the Permittee's withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation will include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in withdrawal source, or other means.

Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1-in-10 year drought event that results in the:

A. Inability to withdraw water consistent with provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference; or

B. Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent.

10. The Permittee shall mitigate harm to the natural resources caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to the conditions for permit issuance includes:

A. Reduction in ground or surface water levels that results in harmful lateral movement of the fresh water/salt water interface,

B. Reduction in water levels that harm the hydroperiod of wetlands,

C. Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond,

D. Harmful movement of contaminants in violation of state water quality standards, or

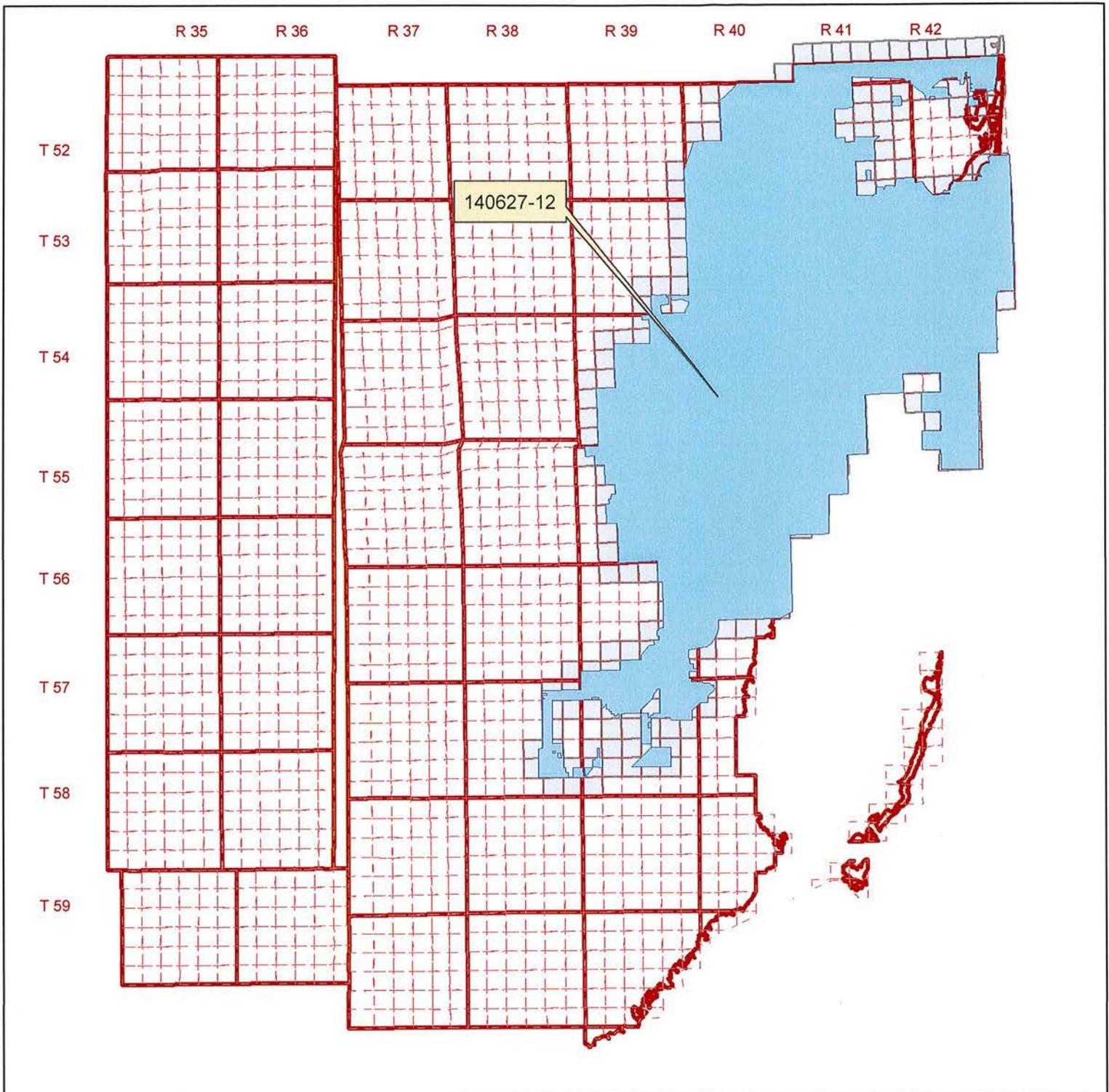
E. Harm to the natural system including damage to habitat for rare or endangered species.

11. The Permittee shall mitigate harm to existing off-site land uses caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm as determined through reference to the conditions for permit issuance, includes:

A. Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other governmental authorization issued for the construction of the water body. In cases where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g. fill for construction, mining, drainage canal, etc.)

B. Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive use; or,

C. Land collapse or subsidence caused by reduction in water levels associated with consumptive use.



MIAMI-DADE COUNTY, FLORIDA

Application No: 140627-12

Permit No: 13-00017-W

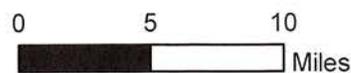
Sec - / Twp 53 / Rge 39

Project Name: MIAMI-DADE CONSOLIDATED PWS

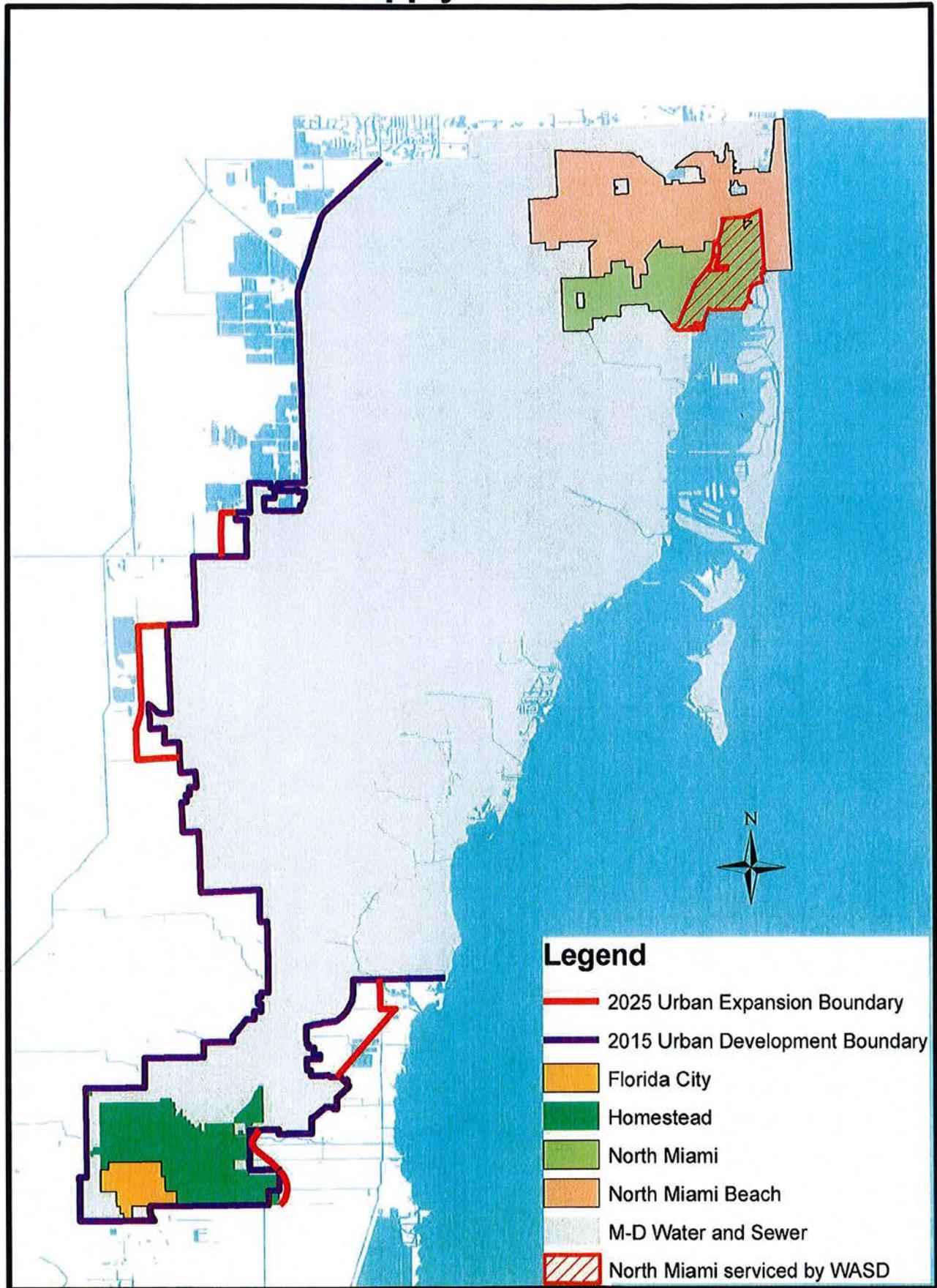
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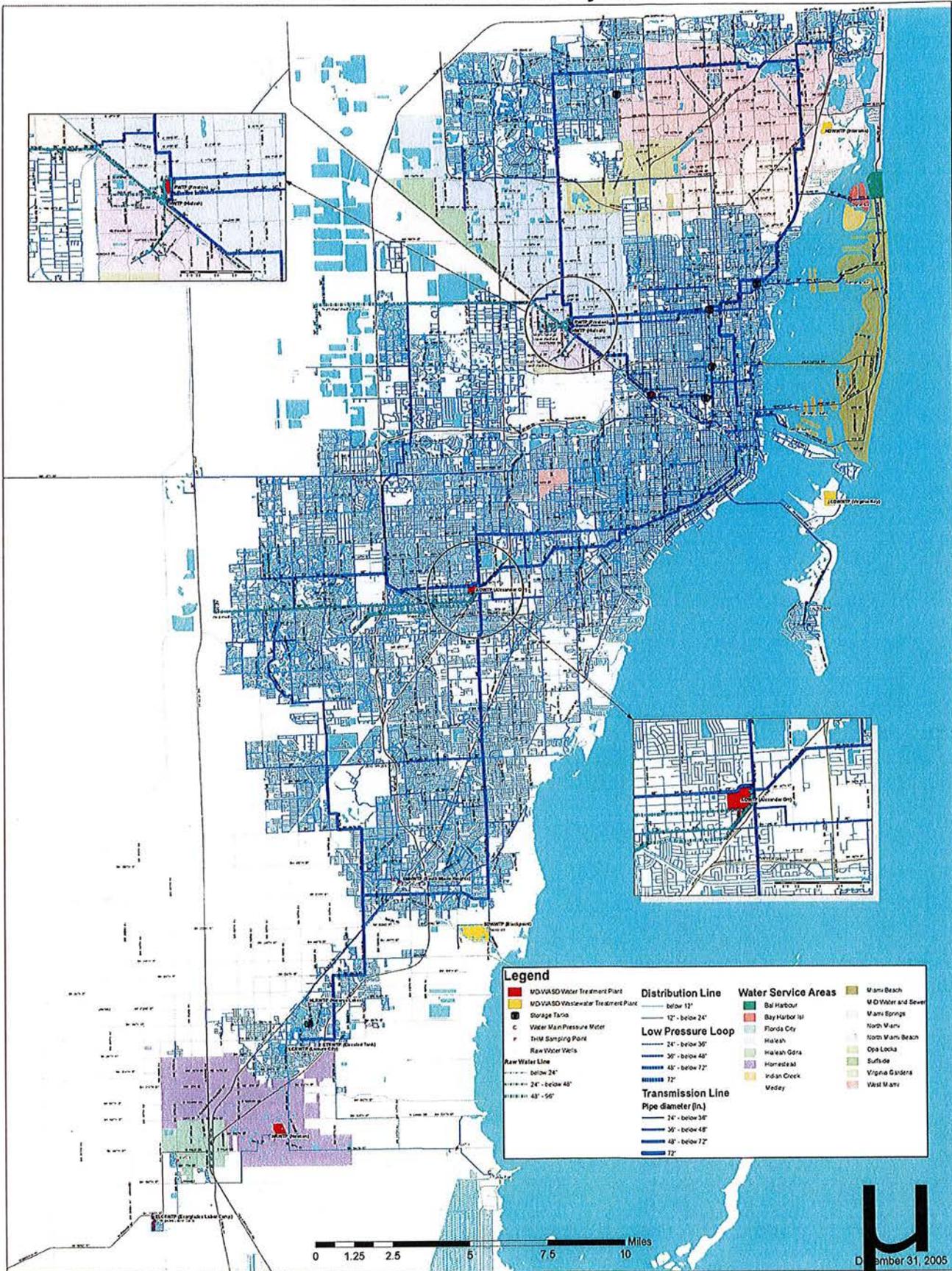
Map Date: 2015-01-16



Miami-Dade County Water and Sewer Department Water Supply Service Area



Miami-Dade Water and Sewer Department Water Transmission System



Legend

<ul style="list-style-type: none"> ■ MDWASD Water Treatment Plant ■ MDWASD Wastewater Treatment Plant ● Storage Tanks C Water Main Pressure Meter F TBM Sampling Point Raw Water Vells 	<p>Distribution Line</p> <ul style="list-style-type: none"> — below 12" — 12" - below 24" <p>Low Pressure Loop</p> <ul style="list-style-type: none"> — 24" - below 36" — 36" - below 48" — 48" - below 72" — 72" <p>Transmission Line</p> <p>Pipe diameter (in.)</p> <ul style="list-style-type: none"> — 24" - below 36" — 36" - below 48" — 48" - below 72" — 72" 	<p>Water Service Areas</p> <ul style="list-style-type: none"> ■ Miami Beach ■ Miami Water and Sewer ■ Miami Springs ■ North Miami ■ North Miami Beach ■ Opa Locka ■ Sufiside ■ Virginia Gardens ■ West Miami
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MIAMI-DADE COUNTY, FLORIDA

 Application

 WELL

N

 Map Date: 2012-04-06

Application Number: 140627-12

Permit Number: 13-00017-W

Sec - / Twp 53 / Rge 39

Project Name: MIAMI-DADE CONSOLIDATED P W S
 HIALEAH RO WELLFIELD

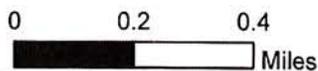
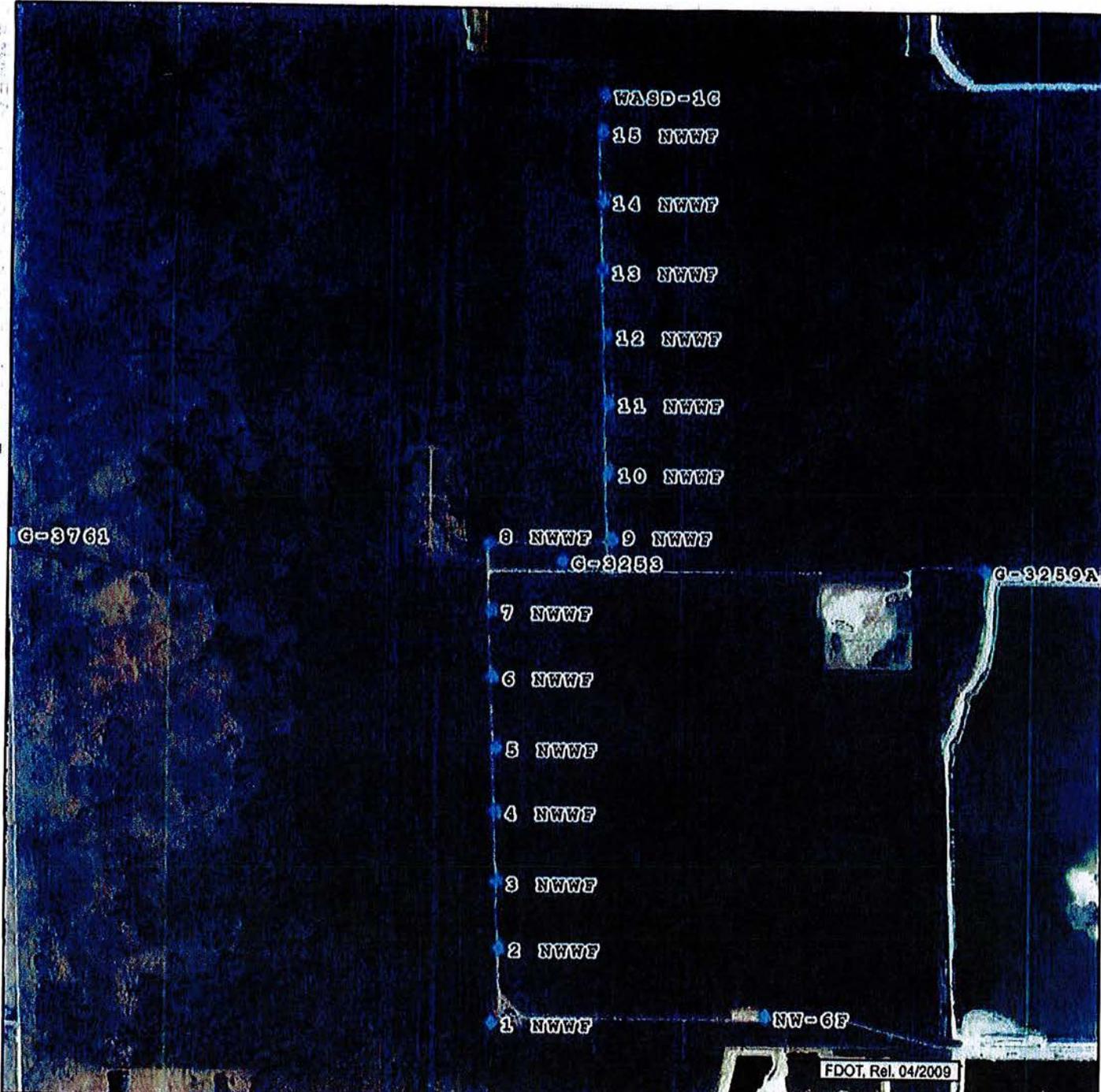
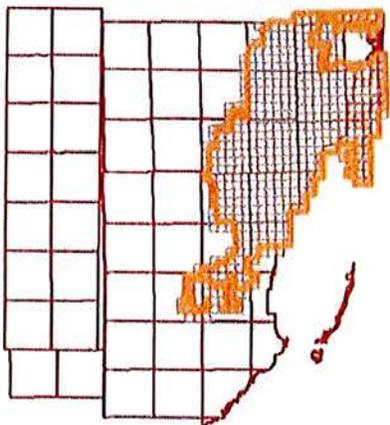


Exhibit No: 3B





FDOT, Rel. 04/2009



MIAMI-DADE COUNTY, FLORIDA

Legend

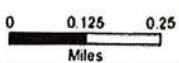
- ▭ Application
- ◆ Wells
- ◆ Pumps

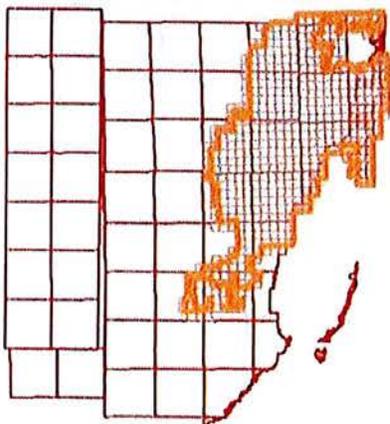
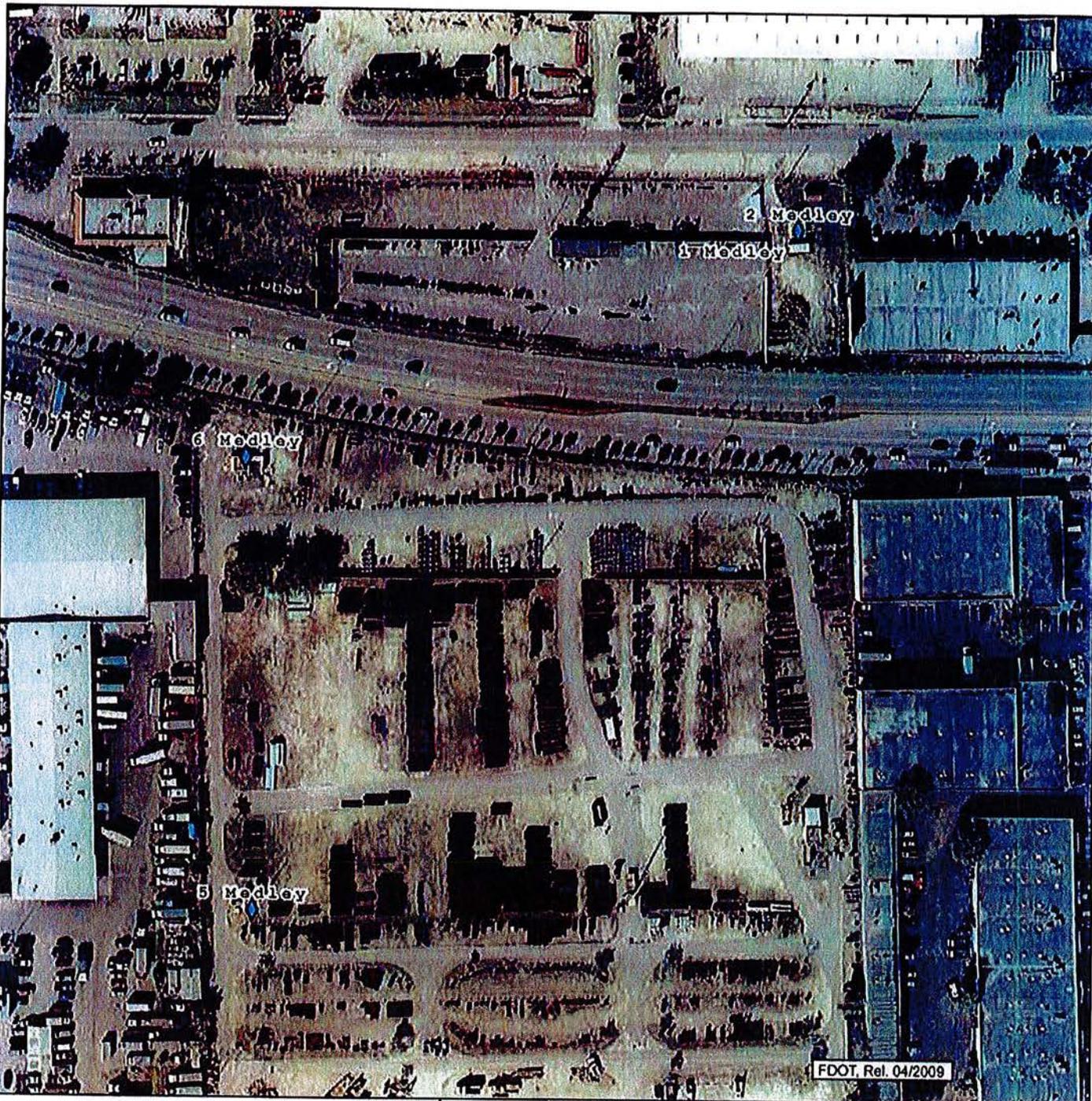
Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
NORTHWEST WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

-  Application
-  Pumps
-  Wells

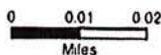
Map Date: 10/11/2010



Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
MEDLEY WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

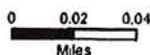
- ▭ Application
- ◆ Pumps
- ◆ Wells

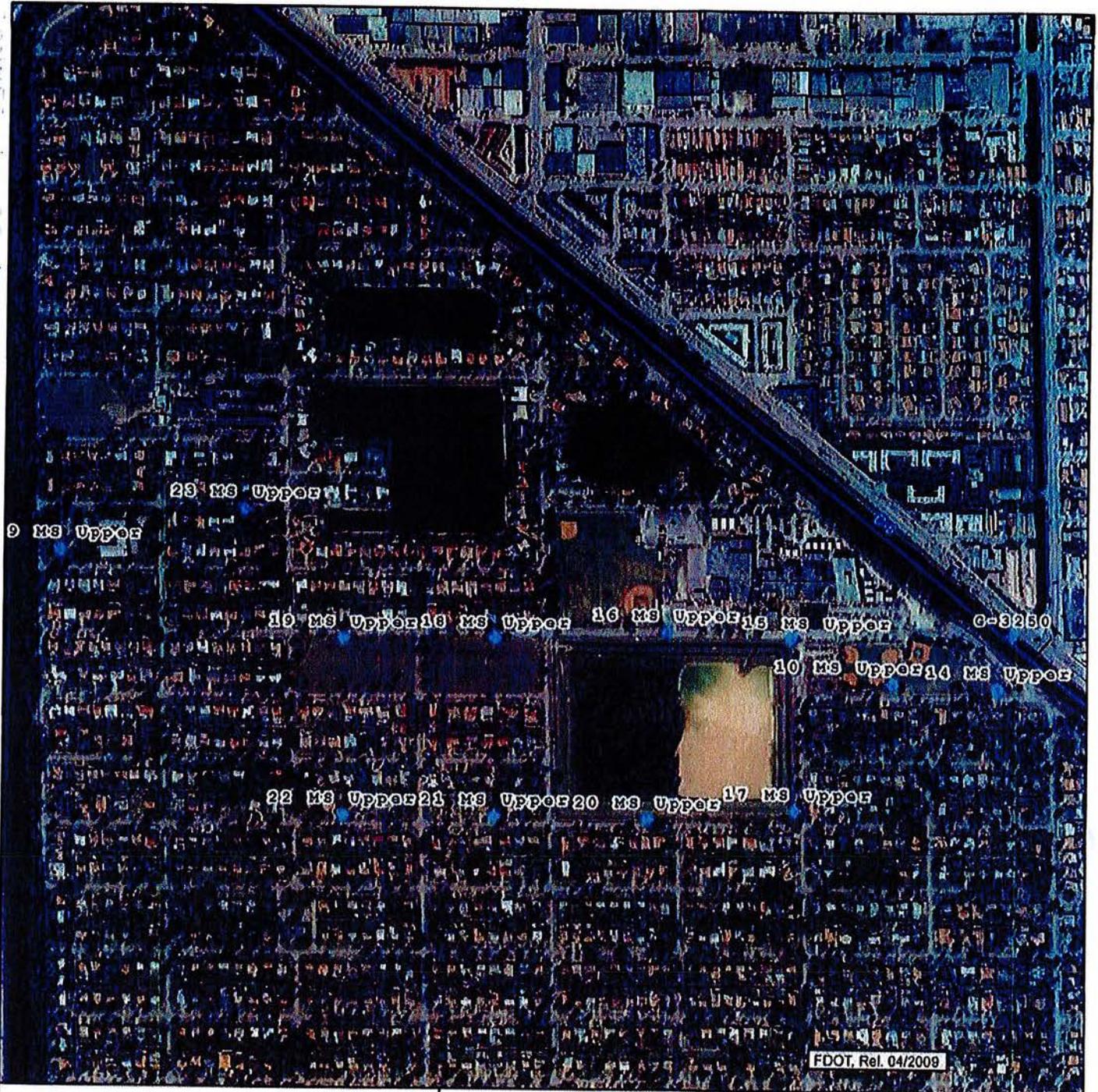
Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
HIALEAH AND PRESTON WELLFIELDS





MIAMI-DADE COUNTY, FLORIDA

Legend

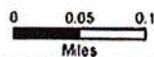
- Application
- ◆ Pumps
- ◆ Wells

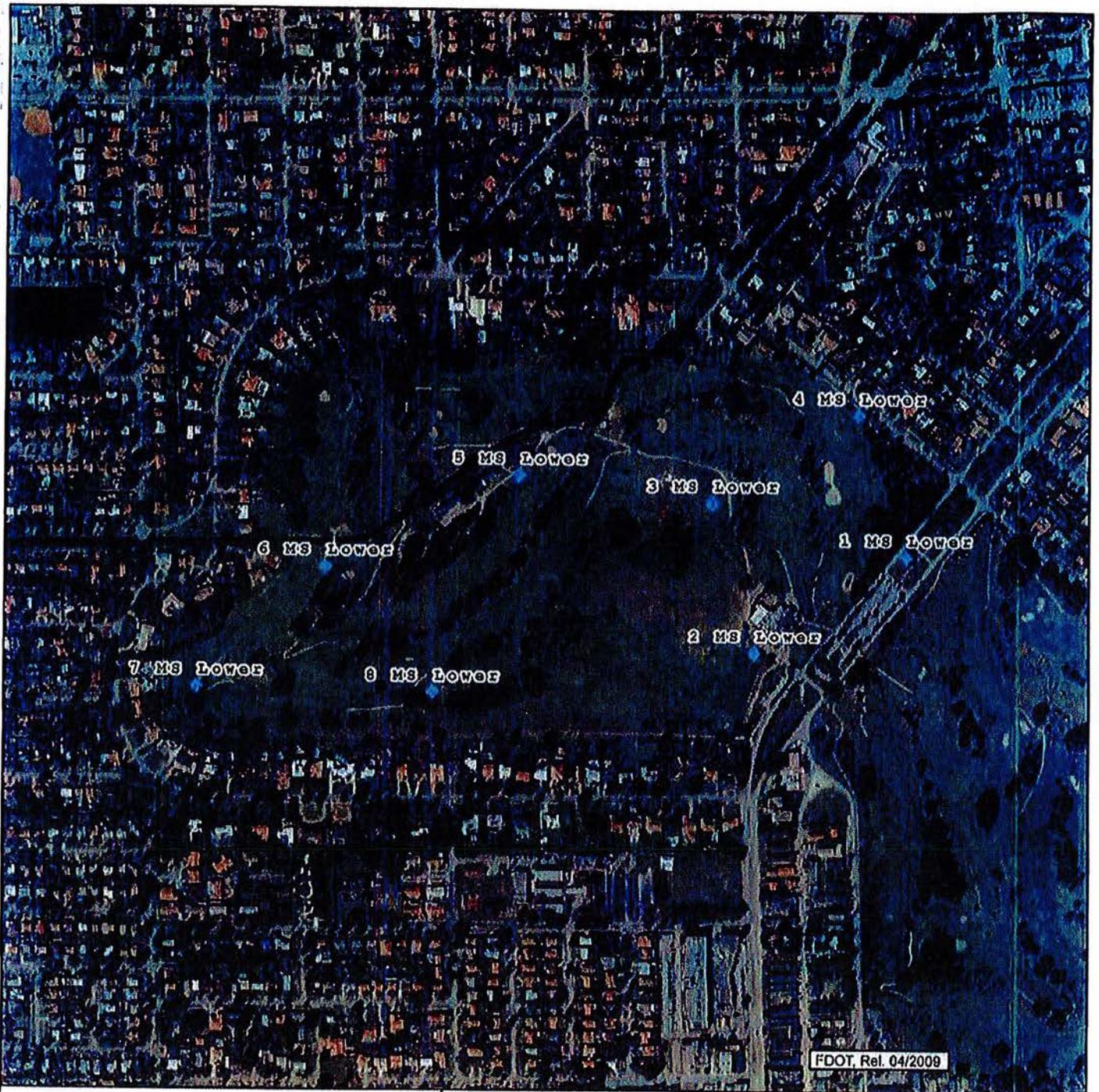
Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
MIAMI SPRINGS UPPER WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

-  Application
-  Pumps
-  Wells

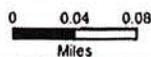
Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S

MIAMI SPRINGS LOWER WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

- Application
- ◆ Pumps
- ◆ Wells

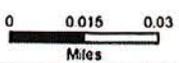
Map Date: 10/11/2010



Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
WEST WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

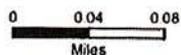
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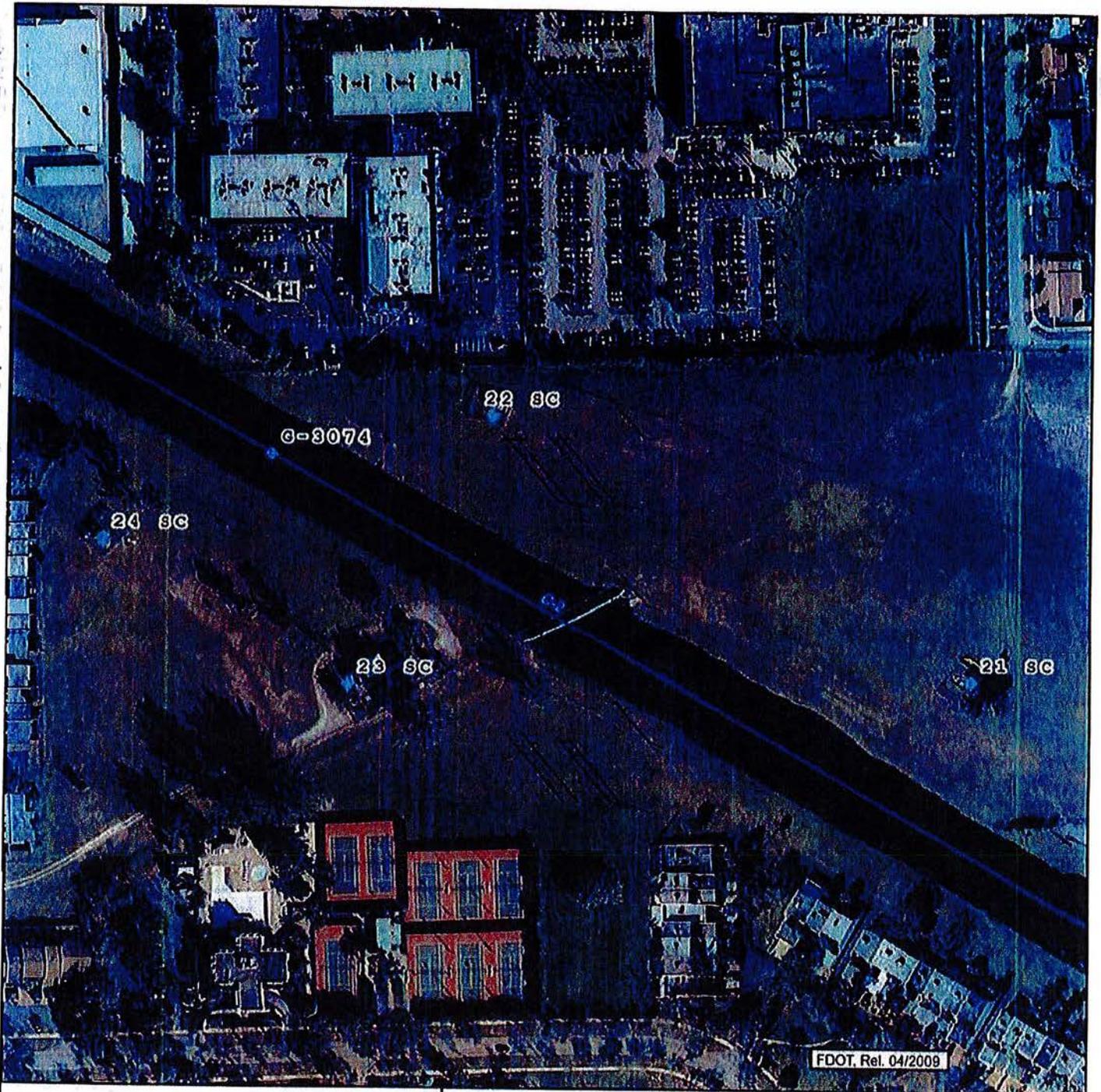
Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
SOUTHWEST WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

- Application
- ◆ Pumps
- ◆ Wells

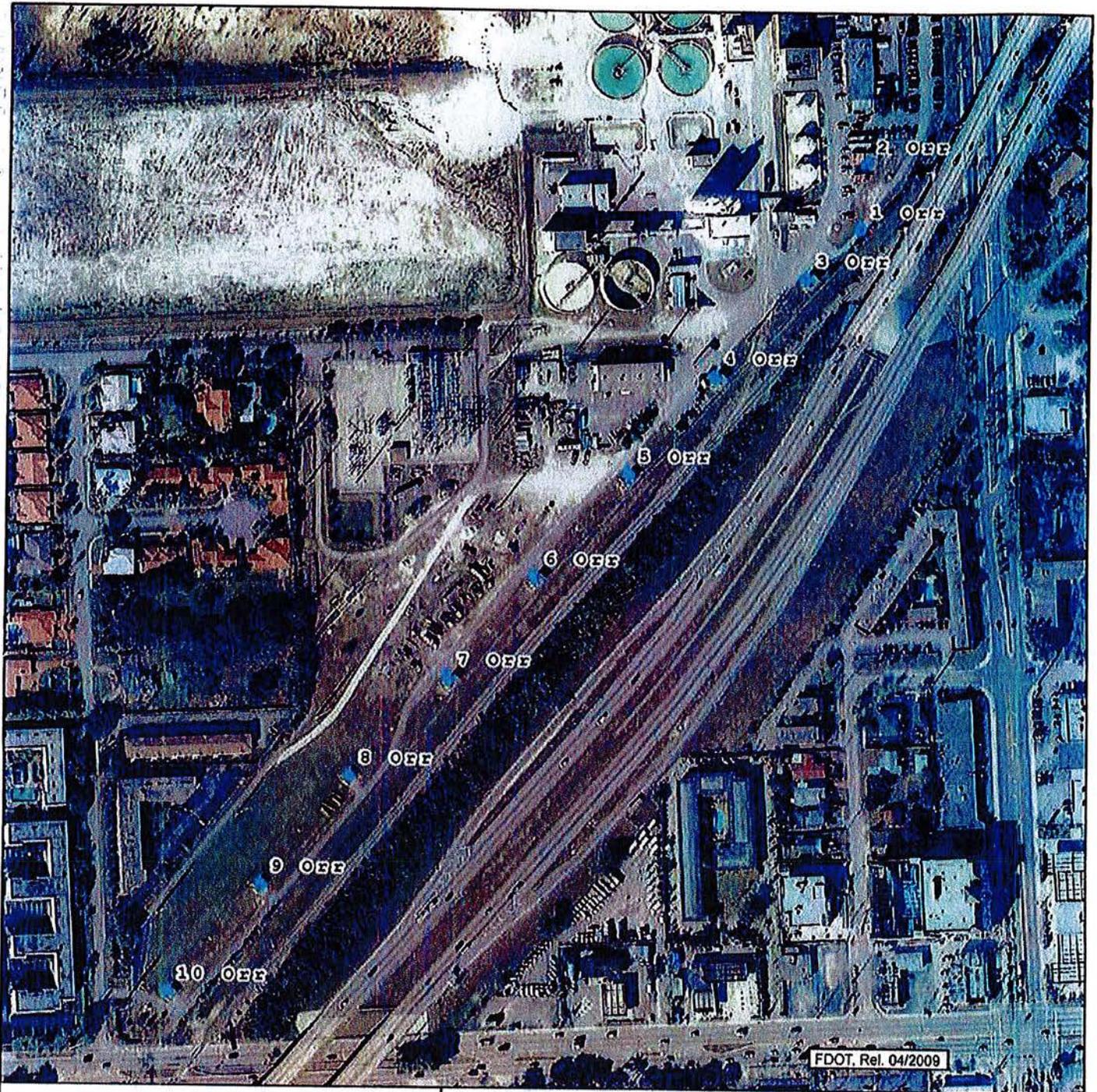

 Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
 SNAPPER CREEK WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

- Application
- ◆ Wells
- ◆ Pumps

Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
ALEXANDER ORR WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

 Application

 WELL

N

 Map Date: 2012-06-13

Application Number: 140627-12

Permit Number: 13-00017-W

Sec - / Twp 53 / Rge 39

Project Name: MIAMI-DADE CONSOLIDATED P W S
 SOUTH MIAMI HEIGHTS WELLFIELDS

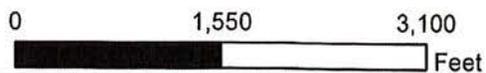
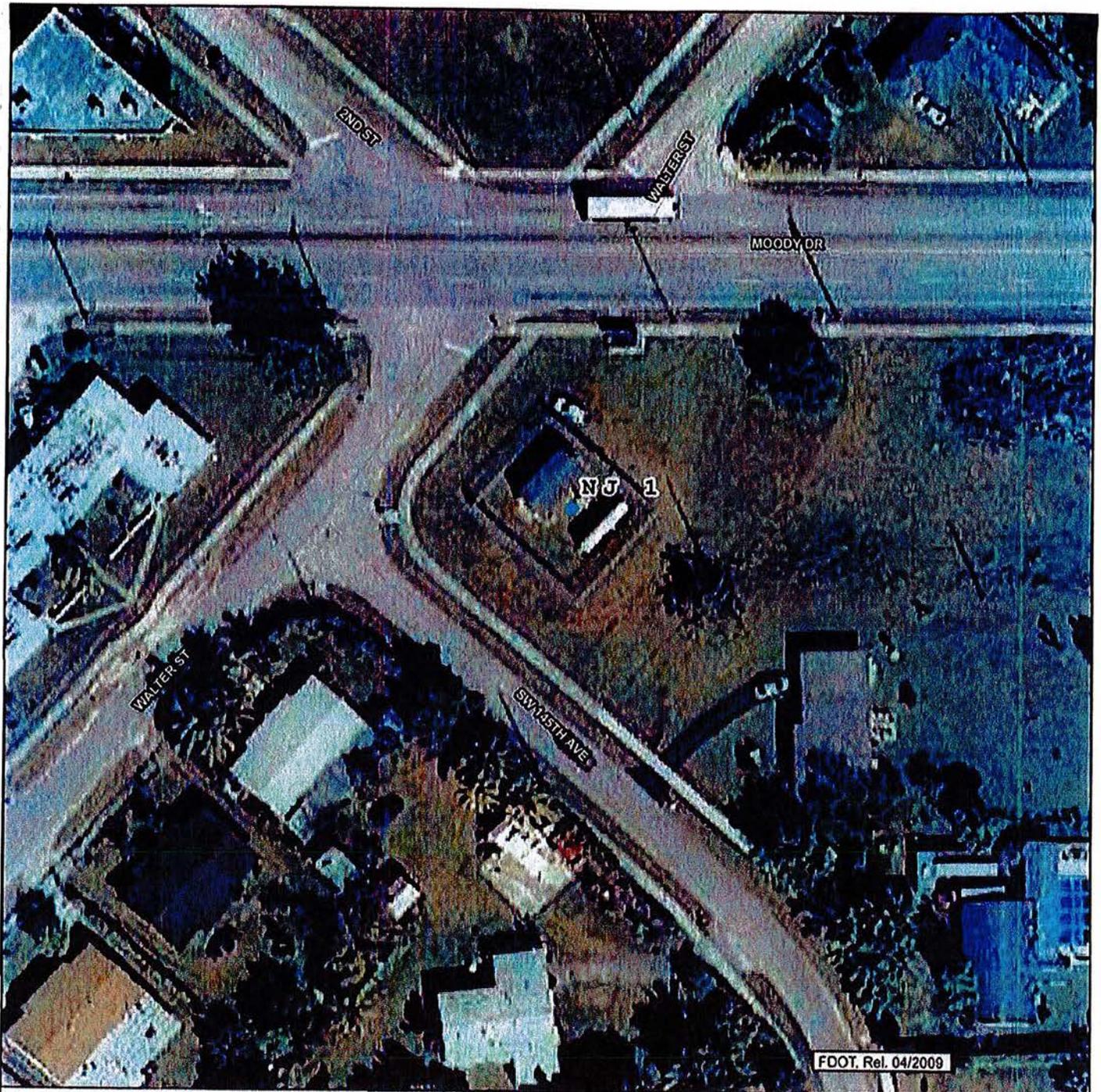


Exhibit No: 3L





MIAMI-DADE COUNTY, FLORIDA

Legend

- Application
- ◆ Pumps
- ◆ Wells

Map Date: 10/11/2010



Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
NARANJA WELLFIELD

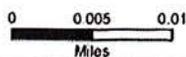


Exhibit : 3N



MIAMI-DADE COUNTY, FLORIDA

Legend

- ▭ Application
- ◆ Wells
- ◆ Pumps

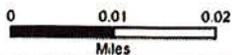
Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S

LEISURE CITY WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

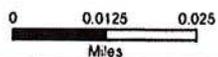
- Application
- ◆ Pumps
- ◆ Wells

Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
ELEVATED TANK WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

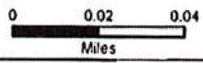
-  Application
-  Pumps
-  Wells


 Map Date: 10/11/2010

Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
 NEWTON WELLFIELD





MIAMI-DADE COUNTY, FLORIDA

Legend

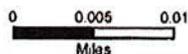
- Application
- ◆ Pumps
- ◆ Wells

Map Date: 10/11/2010

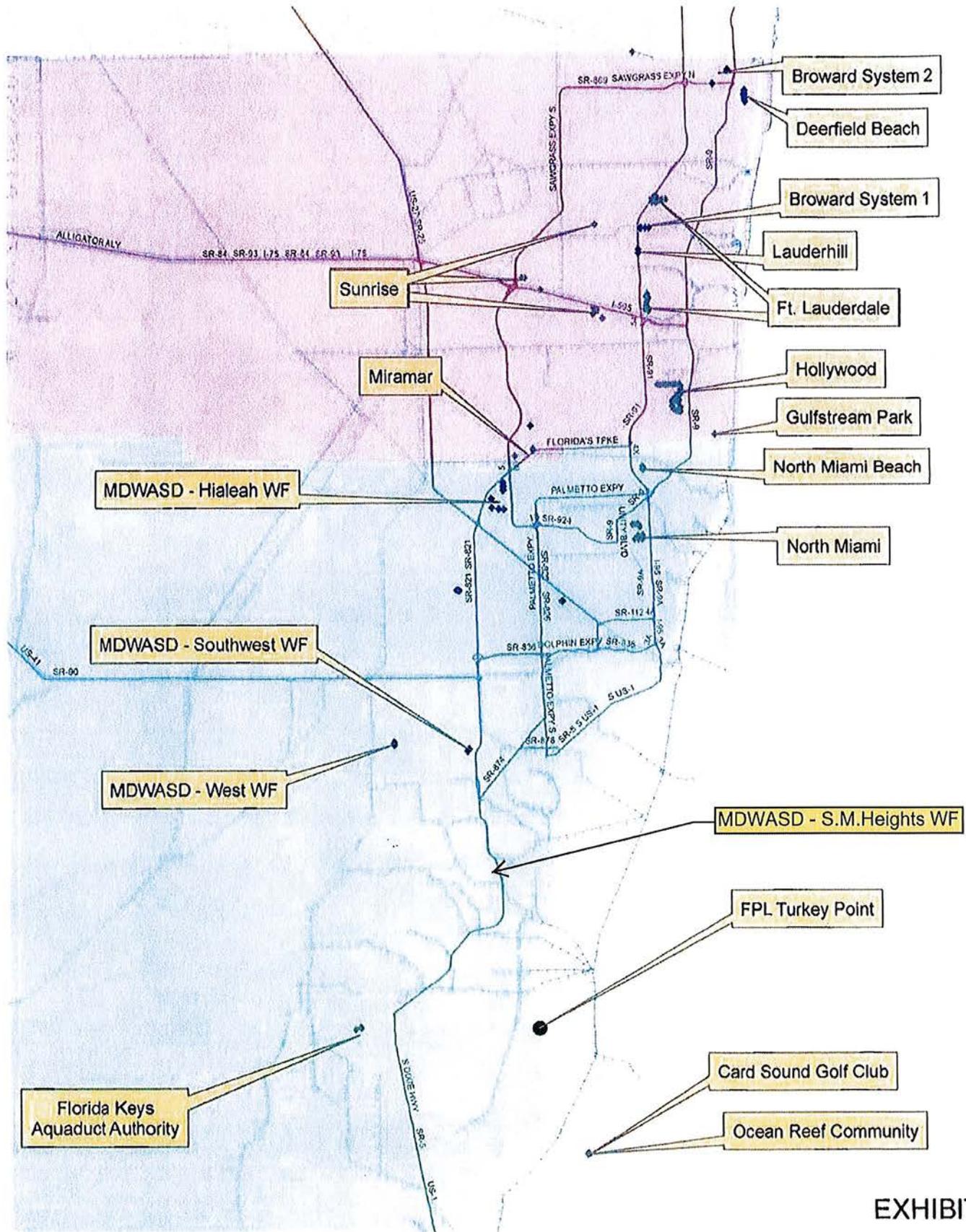
Application Number: 140627-12

Permit Number: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED P W S
EVERGLADES WELLFIELD



Upper Floridan Aquifer Permitted Users



**Permitted Floridan Users
Miami-Dade, Broward, Monroe**

PERMIT_NO	Permittee	Facility Status	Allocation (mgd)
44-00284-W	SILVER SHORES MOBILE HOME PARK	1 existing	0.0200
44-00002-W	OCEAN REEF COMMUNITY	4 existing	1.42
44-00001-W	CARD SOUND GOLF CLUB	1 existing	0.58
13-00005-W	FLORIDA KEYS AQUEDUCT AUTHORITY	5 existing	6.18
13-00017-W	MIAMI-DADE CONSOLIDATED P W S	6 existing; 13 proposed	19.95
13-01556-W	LA GORCE COUNTRY CLUB INC	1 existing; 1 proposed	0.95
13-00059-W	CITY OF NORTH MIAMI	10 proposed	7.97
13-00060-W	CITY OF NORTH MIAMI BEACH	3 existing	12.07
06-00054-W	CITY OF MIRAMAR PUBLIC WATER SUPPY	3 proposed	2.67
06-00954-W	GULFSTREAM PARK	1 existing	0.16
06-00038-W	HOLLYWOOD WATER TREATMENT PLANT	6 existing; 17 proposed	8.68
06-00134-W	TOWN OF DAVIE WATER PLANT SYS I, III, AND V	1 existing; 9 proposed	14.83
06-00120-W	CITY OF SUNRISE	2 existing; 6 proposed	10.98
06-00123-W	FORT LAUDERDALE PUBLIC WATER SUPPLY	2 existing; 14 proposed	10
06-00129-W	CITY OF LAUDERHILL	2 proposed	1.02
06-00146-W	BROWARD COUNTY DISTRICT 1	4 proposed	4.7
06-01634-W	BROWARD COUNTY 2A / NORTH REGIONAL PWS	1 existing; 4 proposed	10
06-00082-W	DEERFIELD BEACH PUBLIC WATER SUPPLY	1 existing; 1 proposed	6.5
Site Certification	FPL TURKEY POINT FLORIDAN PRODUCTION WELL	3 existing	14

EXHIBIT 4C

SCANNED 05/12/2011 15:29 1.0

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217724	217725	217726	217727	217728	217730
Name	RO1 Hialeah	RO2 Hialeah	RO3 Hialeah	RO4 Hialeah	RO5 Hialeah	RO6 Hialeah
Map Designator	Hialeah 1 RO	Hialeah 2 RO	Hialeah 3 RO	Hialeah 4 RO	Hialeah 5 RO	Hialeah 6 RO
FLUWID Number						
Well Field	Hialeah RO WTP					
Existing/Proposed	E	E	E	E	P	P
Well Diameter(Inches)	17	17	17	17	17	17
Total Depth(feet)	1490	1490	1490	1490	1490	1490
Cased Depth(feet)	1150	1080	1080	1080	1080	1080
Facility Elev. (ft. NGVD)						
Screened Interval From						
To						
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	1400	1400	1400	1400	1400	1400
Year Drilled	2009	2011	2011	2011	2011	2011
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	863270	863450	864770	865950	866950	866990
Feet North	578595	574835	574835	574835	584875	583590
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217731	257400	257401	257402	257403	257404
Name	RO7 Hialeah	RO8 Hialeah	RO9 Hialeah	RO10 Hialeah	RO11 Hialeah	RO12 Hialeah
Map Designator	Hialeah 7 RO	Hialeah 8 RO	Hialeah 9 RO	Hialeah 10 RO	Hialeah 11 RO	Hialeah 12 RO
FLUWID Number						
Well Field	Hialeah RO WTP	Hialeah RO WTP	Hialeah RO WTP	Hialeah RO WTP	Hialeah RO WTP	Hialeah RO WTP
Existing/Proposed	P	P	P	E	E	P
Well Diameter(Inches)	17	17	17	17	17	17
Total Depth(feet)	1490	1490	1490	1490	1490	1490
Cased Depth(feet)	1080	1080	1080	1080	1080	1080
Facility Elev. (ft. NGVD)						
Screened Interval From						
To						
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	1400	1400	1400	1400	1400	1400
Year Drilled	2011	2011	2011	2011	2011	2011
Planar Location Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	867085	866240	865035	867410	867175	864485
Feet North	581265	584315	583230	574835	578665	582690
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Standby	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply Monitor	Public Water Supply				
Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	257405	257406	28291	28292	28293	28294
Name	RO13 Hialeah	RO14 Hialeah	1 NWWF	2 NWWF	3 NWWF	4 NWWF
Map Designator	Hialeah 13 RO	Hialeah 14 RO	1 NWWF	2 NWWF	3 NWWF	4 NWWF
FLUWID Number						
Well Field	Hialeah RO WTP	Hialeah RO WTP	Northwest	Northwest	Northwest	Northwest
Existing/Proposed	P	P	E	E	E	E
Well Diameter(Inches)	17	17	48	48	48	48
Total Depth(feet)	1490	1490	80	80	80	80
Cased Depth(feet)	1080	1080	46	46	46	46
Facility Elev. (ft. NGVD)						
Screened Interval						
From			0	0	0	0
To			0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)			40	40	40	40
Pump Capacity(GPM)	1400	1400	10420	10420	10420	10420
Year Drilled	2011	2011	1980	1980	1980	1980
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	863250	862450	847729	847805	847767	847747
Feet North	581590	580860	543166	543988	544714	545498
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	28295	28296	28297	28298	28299	28300
Name	5 NWWF	6 NWWF	7 NWWF	8 NWWF	9 NWWF	10 NWWF
Map Designator	5 NWWF	6 NWWF	7 NWWF	8 NWWF	9 NWWF	10 NWWF
FLUWID Number						
Well Field	Northwest	Northwest	Northwest	Northwest	Northwest	Northwest
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	48	48	48	48	48	40
Total Depth(feet)	80	80	80	80	80	100
Cased Depth(feet)	46	46	46	46	46	57
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	40	40	40	40	40	40
Pump Capacity(GPM)	10416.67	10420	10420	10420	10420	10420
Year Drilled	1980	1980	1980	1980	1980	1980
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	847757	847705	847685	847664	849022	848971
Feet North	546203	546981	547728	548464	548516	549252
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	28301	28302	28303	28304	28305	217680
Name	11 NWWF	12 NWWF	13 NWWF	14 NWWF	15 NWWF	1 Medley
Map Designator	11 NWWF	12 NWWF	13 NWWF	14 NWWF	15 NWWF	Medley - 1
FLUWID Number						
Well Field	Northwest	Northwest	Northwest	Northwest	Northwest	Medley
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	48	48	40	40	40	42
Total Depth(feet)	80	80	100	100	100	68
Cased Depth(feet)	46	46	57	57	57	60
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	
To	0	0	0	0	0	
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	40	40	40	40	40	
Pump Capacity(GPM)	10420	10420	10420	10420	10420	10000
Year Drilled	1980	1980	1980	1980	1980	1975
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	848960	848929	848877	848877	848867	881370
Feet North	550030	550777	551492	552260	553017	548300
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Standby
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer					

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217681	217684	217686	28261	28262	28263
Name	2 Medley	5 Medley	6 Medley	1 MS Lower	2 MS Lower	3 MS Lower
Map Designator	Medley - 2	Medley - 5	Medley - 6	1 MS Lower	2 MS Lower	3 MS Lower
FLUWID Number						
Well Field	Medley	Medley	Medley	Miami Springs Lower	Miami Springs Lower	Miami Springs Lower
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	42	42	42	14	14	14
Total Depth(feet)	68	68	68	115	115	115
Cased Depth(feet)	54	60	54	80	80	80
Facility Elev. (ft. NGVD)						
Screened Interval						
From				0	0	0
To				0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Centrifugal	Centrifugal	Centrifugal
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)				0	0	
Pump Capacity(GPM)	8500	8500	10000	3800	2500	2500
Year Drilled	1975	1975	1975	1924	1924	1924
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	881370	880830	880820	890660	889990	889800
Feet North	548300	547620	548070	539170	538745	539400
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Standby	Standby	Standby	Primary	Primary	Primary
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply Monitor	Public Water Supply	Public Water Supply
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	28264	28265	28268	28266	28267	28269
Name	4 MS Lower	5 MS Lower	6 MS Lower	7 MS Lower	8 MS Lower	9 MS Upper
Map Designator	4 MS Lower	5 MS Lower	6 MS Lower	7 MS Lower	8 MS Lower	9 MS Upper
FLUWID Number						
Well Field	Miami Springs Lower	Miami Springs Upper				
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	14	14	30	14	14	14
Total Depth(feet)	115	115	115	115	115	115
Cased Depth(feet)	80	80	80	80	80	80
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	0	0	0	0	0	
Pump Capacity(GPM)	2500	2500	2500	2500	2500	2500
Year Drilled	1924	1924	1924	1924	1924	1949
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	890450	888955	888105	887545	888575	884630
Feet North	539785	539515	539115	538585	538565	544870
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Unspecified	Flow Meter
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	28280	28271	28272	28273	28274	28275
Name	10 MS Upper	14 MS Upper	15 MS Upper	16 MS Upper	17 MS Upper	18 MS Upper
Map Designator	10 MS Upper	14 MS Upper	15 MS Upper	16 MS Upper	17 MS Upper	18 MS Upper
FLUWID Number						
Well Field	Miami Springs Upper	Miami Springs Upper	Miami Springs Upper	Miami Springs Upper	Miami Springs Upper	Miami Springs Upper
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	14	30	14	14	14	14
Total Depth(feet)	115	115	115	115	115	115
Cased Depth(feet)	80	80	80	80	80	80
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	0		0	0	0	0
Pump Capacity(GPM)	2500	4170	2500	2500	2500	2500
Year Drilled	1954	1936	1936	1936	1936	1945
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	888960	889520	888430	887776	888460	886890
Feet North	544210	544190	544440	544475	543550	544430
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Primary	Primary	Standby	Standby	Primary	Standby
Water Use Type	Public Water Supply	Public Water Supply Monitor	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	28276	28277	28278	28279	28270	28281
Name	19 MS Upper	20 MS Upper	21 MS Upper	22 MS Upper	23 MS Upper	1 Preston
Map Designator	19 MS Upper	20 MS Upper	21 MS Upper	22 MS Upper	23 MS Upper	1 Preston
FLUWID Number						
Well Field	Miami Springs Upper	Preston				
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	14	14	14	14	14	42
Total Depth(feet)	115	115	115	115	115	107
Cased Depth(feet)	80	80	80	80	80	66
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	0	0	0	0	0	40
Pump Capacity(GPM)	2500	2500	2500	2500	2500	7000
Year Drilled	1945	1945	1945	1945	1949	1966
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	886105	887684	886890	886110	885590	890540
Feet North	544425	543499	543510	543510	545090	544500
Accounting Method	Flow Meter					
Use Status	Standby	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	28282	28283	28284	28285	28286	28287
Name	2 Preston	3 Preston	4 Preston	5 Preston	6 Preston	7 Preston
Map Designator	2 Preston	3 Preston	4 Preston	5 Preston	6 Preston	7 Preston
FLUWID Number						
Well Field	Preston	Preston	Preston	Preston	Preston	Preston
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	42	42	42	42	42	42
Total Depth(feet)	107	107	107	107	107	107
Cased Depth(feet)	66	66	66	66	66	69
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	40	40	40	40	40	40
Pump Capacity(GPM)	7000	7000	7000	7000	7000	7000
Year Drilled	1966	1966	1966	1966	1966	1972
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	890510	890430	891080	891029	891000	890100
Feet North	545010	544680	544650	545190	545680	544270
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	28288	28289	28290	26330	26331	26332
Name	11 Hialeah	12 Hialeah	13 Hialeah	1 Orr	2 Orr	3 Orr
Map Designator	11 Hialeah	12 Hialeah	13 Hialeah	ORR 1	ORR 2	ORR 3
FLUWID Number						
Well Field	Hialeah	Hialeah	Hialeah	Alexander Orr	Alexander Orr	Alexander Orr
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	14	14	14	16	16	16
Total Depth(feet)	115	115	115	100	100	100
Cased Depth(feet)	80	80	80	40	40	40
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Centrifugal	Centrifugal	Centrifugal	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	2500	2500	2500	4170	4170	4170
Year Drilled	1936	1936	1936	1949	1949	1949
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	891050	890830	890650	875100	875110	875000
Feet North	543550	544140	543790	499520	499640	499430
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply Monitor	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	26304	26306	26309	26310	26311	26312
Name	4 Orr	5 Orr	6 Orr	7 Orr	8 Orr	9 Orr
Map Designator	ORR 4	ORR 5	ORR 6	ORR 7	ORR 8	ORR 9
FLUWID Number						
Well Field	Alexander Orr					
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	16	16	16	16	16	24
Total Depth(feet)	100	100	100	100	100	100
Cased Depth(feet)	40	40	40	40	40	50
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	4170	4170	4170	4170	7500	7500
Year Drilled	1949	1952	1952	1952	1952	1964
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	874830	874670	874500	874340	874160	874000
Feet North	499250	499070	498880	498690	498510	498310
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	26313	26314	26315	26319	27172	27173
Name	10 Orr	11 SW	12 SW	13 SW	14 SW	15 SW
Map Designator	ORR 10	Southwest 11	Southwest 12	Southwest 13	Southwest 14	Southwest 15
FLUWID Number						
Well Field	Alexander Orr	Southwest	Southwest	Southwest	Southwest	Southwest
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	24	20	20	20	20	20
Total Depth(feet)	100	100	100	100	100	100
Cased Depth(feet)	50	40	40	40	40	40
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	7500	4900	4900	4900	4900	4900
Year Drilled	1964	1953	1953	1953	1953	1953
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	873830	856559	856380	856180	855960	855740
Feet North	498110	496044	495440	495215	494980	494750
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	27174	27175	27176	27177	27178	27179
Name	16 SW	17 SW	18 SW	19 SW	20 SW	21 SC
Map Designator	Southwest 16	Southwest 17	Southwest 18	Southwest 19	Southwest 20	SNPR CRK 21
FLUWID Number						
Well Field	Southwest	Southwest	Southwest	Southwest	Southwest	Snapper Creek
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	20	24	24	24	24	24
Total Depth(feet)	100	100	100	100	100	108
Cased Depth(feet)	40	35	35	35	35	50
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	4900	4900	4900	4900	4900	8300
Year Drilled	1953	1959	1959	1959	1959	1976
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	855470	855280	855080	855850	854640	867480
Feet North	494440	494280	494050	493810	493590	496570
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	27180	27181	27182	27183	27184	27185
Name	22 SC	23 SC	24 SC	25 SW	26 SW	27 SW
Map Designator	SNPR CRK 22	SNPR CRK 23	SNPR CRK 24	Southwest 25	Southwest 26	Southwest 27
FLUWID Number						
Well Field	Snapper Creek	Snapper Creek	Snapper Creek	Southwest	Southwest	Southwest
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	24	24	24	24	24	24
Total Depth(feet)	108	108	108	104	104	104
Cased Depth(feet)	50	50	50	54	54	54
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	8300	8300	8300	6940	6940	6940
Year Drilled	1976	1976	1976	1982	1982	1982
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	Migrate	REVIEWER
Feet East	866830	866640	866310	854400	854160	853920
Feet North	496920	496560	496750	493320	493060	492810
Accounting Method	Unspecified	Unspecified	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer					

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	27186	27187	27188	27189	27192	27191
Name	28 SW	29 W	30 W	31 W	32 SW	33 SW
Map Designator	Southwest 28	West Wellfield 29	West Wellfield 30	West Wellfield 31	SW 32	SW 33
FLUWID Number						
Well Field	Southwest	West	West	West	Southwest	Southwest
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	24	24	24	24	48	48
Total Depth(feet)	104	70	70	70	88	88
Cased Depth(feet)	54	35	35	35	33	33
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						0
Pump Capacity(GPM)	6940	6945	3470	6945	7500	7500
Year Drilled	1982				1997	1997
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	853830	830235	830220	830210	855470	855970
Feet North	492801	496590	497150	497700	495900	494350
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Unspecified
Use Status	Primary	Primary	Primary	Standby	Standby	Standby
Water Use Type	Public Water Supply	Public Water Supply Monitor	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	27190	27193	27195	27194	27196	27197
Name	34 SW	ASR/Blending 1W	ASR/Blending 2W	ASR/Blending 3W	ASR/Blending 4SW	ASR/Blending 5SW
Map Designator	Southwest 34	ASR 1W	ASR 2W	ASR 3W	ASR 4SW	ASR-5SW
FLUWID Number						
Well Field	Southwest	Alexander Orr WTP				
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	48	30	30	30	30	30
Total Depth(feet)	88	1300	1250	1210	1200	1200
Cased Depth(feet)	33	850	845	835	765	760
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	7500	3500	3500	3500	3500	3500
Year Drilled	1997	1996	1997	1997	1997	1998
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	854350	830190	830100	830160	855386	854880
Feet North	493690	496430	496700	497420	495060	494320
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Standby	Primary	Primary	Primary	Standby	Standby
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Biscayne Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer	Upper Floridan Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	23826	128172	128166	128168	23821	23822
Name	ET 1	ET 2	EVRGL 1	EVRGL 2	EVRGL 3	LC 2
Map Designator	ELEVATED TANK 1	ELEVATED TANK 2	EVERGLADES 1	EVERGLADES 2	EVERGLADES 3	LEISURE CITY 2
FLUWID Number						
Well Field	Elevated Tanks	Elevated Tanks	Everglades Labor	Everglades Labor	Everglades Labor	Leisure City
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	12	16	18	18	18	6
Total Depth(feet)	40	50	55	55	50	30
Cased Depth(feet)	35	40	45	42	40	25
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0				0	0
To	0				0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	37	37	38	38	38	22
Pump Capacity(GPM)	1600	1600	1500	1500	500	400
Year Drilled	1982	1996	2000	2001	2000	1953
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	847490	847500	818850	818880	818905	841830
Feet North	423470	423360	394500	394500	394500	422680
Accounting Method	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter	Flow Meter
Use Status	Primary	Standby	Primary	Standby	Primary	Primary
Water Use Type	Public Water Supply Monitor	Public Water Supply Monitor	Public Water Supply Water Shortage Monitoring Facility	Public Water Supply	Public Water Supply Monitor	Public Water Supply Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	23823	23824	23825	27411	27407	27408
Name	LC 3	LC 4	LC 5	NJ 1	NWTN 1	NWTN 2
Map Designator	LEISURE CITY 3	LEISURE CITY 4	LEISURE CITY 5	NARANJA 1	NEWTON 1	NEWTON 2
FLUWID Number						
Well Field	Leisure City	Leisure City	Leisure City	Naranja Lakes	Newton	Newton
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	12	12	12	12	18	18
Total Depth(feet)	35	35	40	40	65	66
Cased Depth(feet)	30	30	35	35	50	53
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Turbine	Turbine	Turbine	Turbine	Turbine	Turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	27	-27	27	32	45	43
Pump Capacity(GPM)	1200	800	1600	800	1500	1500
Year Drilled	1957	1966	1971	1975	2000	2001
Planar Location						
Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	841825	841770	841740	845240	838720	839675
Feet North	422746	422730	422725	430800	408020	408020
Accounting Method	Flow Meter	Flow Meter				
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply Monitor	Public Water Supply Water Shortage Monitoring Facility	Public Water Supply Monitor			
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	128173	128178	128179	128180	128181	261790
Name	FP 1	RHP 1	RHP 2	RHP 3	RHP 4	SMH-F1
Map Designator	Former Plant 1	Roberta Hunter 1	Roberta Hunter 2	Roberta Hunter 3	Roberta Hunter 4	SMH-FA1
FLUWID Number						
Well Field	South Miami Heights					
Existing/Proposed	P	P	P	P	P	P
Well Diameter(Inches)	24	24	24	24	24	24
Total Depth(feet)	50	72	50	72	72	1200
Cased Depth(feet)	45	45	45	45	45	1100
Facility Elev. (ft. NGVD)						
Screened Interval From						
To						
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Submersible	Submersible	Submersible	Submersible	Submersible	Submersible
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	2800	1400	1400	1400	1400	2430
Year Drilled						2012
Planar Location Source	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER	REVIEWER
Feet East	860980	860208	860255	860256	860255	860300
Feet North	458580	456482	455755	455142	454065	455490
Accounting Method	Flow Meter					
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Upper Floridan Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	261791	261792	261793	261794	261795	262633
Name	SMH-F2	SMH-F3	SMH-F4	SMH-F5	SMH-F6	SMH-F7
Map Designator	SMH-FA2	SMH-FA3	SMH-FA4	SMH-FA5	SMH-FA6	SMH-FA7
FLUWID Number						
Well Field	South Miami Heights					
Existing/Proposed	P	P	P	P	P	P
Well Diameter(Inches)	24	24	24	24	24	24
Total Depth(feet)	1200	1200	1200	1200	1200	1200
Cased Depth(feet)	1100	1100	1100	1100	1100	1100
Facility Elev. (ft. NGVD)						
Screened Interval						
From						
To						
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	Submersible	Submersible	Submersible	Submersible	Submersible	Submersible
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	2430	0	2430	2430	2430	2430
Year Drilled	2012	2012	2012	2012	2012	
Planar Location						
Source	REVIEWER		REVIEWER	REVIEWER	REVIEWER	
Feet East	860315	860315	860350	860785	861435	860256
Feet North	454555	453205	452090	451310	450545	457056
Accounting Method	Flow Meter					
Use Status	Primary	Monitor	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply					
Aquifer	Upper Floridan Aquifer					

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	262635	217858	217859	217860	217861	257879
Name	SMH-F8	AO-6N	AO-8C	SC-1N	SC-6N	SW-2W
Map Designator	SMH-FA8					SW-2W
FLUWID Number						
Well Field	South Miami Heights					
Existing/Proposed	P	E	E	E	E	E
Well Diameter(Inches)	24					
Total Depth(feet)	1200	60	60	60	60	60
Cased Depth(feet)	1100	55	55	55	55	60
Facility Elev. (ft. NGVD)						
Screened Interval From						
To						
Pumped Or Flowing	P					
Pump Type	Submersible	None	None	None	None	Unspecified
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	2430	0	0	0	0	0
Year Drilled						
Planar Location Source						
Feet East	860256	871935	876599	866517	867733	852444
Feet North	458125	497928	503302	498298	494945	496094
Accounting Method	Flow Meter	None	None	None	None	None
Use Status	Primary	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Public Water Supply	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Upper Floridan Aquifer	Biscayne Aquifer				

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217863	217869	217870	217881	217878	217877
Name	SW-7W	WWF-21S	WWF-755	NW-3A	NW-6F	NW-8D
Map Designator						
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)						
Total Depth(feet)	60	48	55	88	60	60
Cased Depth(feet)	55	43	50	83	55	55
Facility Elev. (ft. NGVD)						
Screened Interval						
From						
To						
Pumped Or Flowing						
Pump Type	None	None	None	None	None	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location						
Source						
Feet East	852849	830122	833267	841714	850785	855531
Feet North	491131	496604	496314	562395	543261	548212
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217882	217879	137231	257889	257888	257887
Name	NW-19C	WASD-1C	F-45	F-279	G-354	G-432
Map Designator			F-45	F-279	G-354	G-432
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)						
Total Depth(feet)	50	40	84.9	117	90.2	99.5
Cased Depth(feet)	45	35		113.5	89.2	97.5
Facility Elev. (ft. NGVD)						
Screened Interval From						
To						
Pumped Or Flowing						
Pump Type	None	None	None	Unspecified	Unspecified	Unspecified
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location Source			REVIEWER			
Feet East	863277	848891	918017	923283	896054	891645
Feet North	548736	553433	544328	565633	536487	506889
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor Water Shortage Monitoring Facility	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	257886	217851	257878	257885	137249	137251
Name	G-548	G-551	G-553	G-571	G-894	G-896
Map Designator	G-548		G-553	G-571	G-894	G-896
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)					2	2
Total Depth(feet)	97.3	80	91	94.5	76	74
Cased Depth(feet)	91.4	71	79	94.5	74.5	60
Facility Elev. (ft. NGVD)						
Screened Interval From						
To						
Pumped Or Flowing						
Pump Type	Unspecified	None	Unspecified	Unspecified	None	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location Source					DIGITIZED	DIGITIZED
Feet East	894029	855096	874041	893396	924897	892989
Feet North	539211	494095	479217	537785	569308	492088
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	257884	257883	217716	217853	257882	137233
Name	G-901	G-939	G-1009B	G-1074B	G-1179	G-1180
Map Designator	G-901	G-939	G-1009B		G-1179	G-1180
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)						9
Total Depth(feet)	96	60	100	39	80	67
Cased Depth(feet)	94.8	57		17		
Facility Elev. (ft. NGVD)						
Screened Interval						
From						
To						
Pumped Or Flowing						
Pump Type	Unspecified	Unspecified	None	None	Unspecified	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location						
Source			REVIEWER			DIGITIZED
Feet East	889410	883435	887960	824944	856447	854786
Feet North	497387	466158	491810	498493	422815	423247
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor Water Shortage Monitoring Facility
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	137236	137237	257880	217854	137240	217715
Name	G-1351	G-1354	G-1488	G-3074	G-3162	G-3224
Map Designator	G-1351	G-1354	G-1488			G-3224
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	A	E	E
Well Diameter(Inches)	2	2			2	
Total Depth(feet)	103	104	20	40	92	95.5
Cased Depth(feet)	100	91		40	82	93.5
Facility Elev. (ft. NGVD)						
Screened Interval From						
To						
Pumped Or Flowing						
Pump Type	None	None	Unspecified	None	None	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location Source	REVIEWER	DIGITIZED			DIGITIZED	REVIEWER
Feet East	896137	897679		866535	857302.951	916450
Feet North	535114	537142		496866	433858.484	560230
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Abandoned	Monitor	Monitor
Water Use Type	Monitor Water Shortage Monitoring Facility	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	137241	137242	217872	217873	257881	217713
Name	G-3229	G-3250	G-3253	G-3259A	G-3313C	G-3313E
Map Designator	G-3229	G-3250			G-3313C	G-3313E
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)		2				
Total Depth(feet)	85	116	34.5	60	110	114
Cased Depth(feet)		106	18		107	32
Facility Elev. (ft. NGVD)						
Screened Interval						
From						
To						
Pumped Or Flowing						
Pump Type	None	None	None	None	Unspecified	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location						
Source	DIGITIZED	DIGITIZED				REVIEWER
Feet East	897343	889597	848470	853204	886586	886590
Feet North	515333	544468	548281	548219	476178	476160
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217864	217865	217866	217855	217867	217856
Name	G-3551	G-3553	G-3554	G-3555	G-3556	G-3563
Map Designator						
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)						
Total Depth(feet)	18.3	19.9	20	19	19.1	18
Cased Depth(feet)	13.3	14.9	15	14	14.1	13
Facility Elev. (ft. NGVD)						
Screened Interval						
From						
To						
Pumped Or Flowing						
Pump Type	None	None	None	None	None	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location						
Source						
Feet East	822180	829849	833159	834977	830406	872346
Feet North	496766	496216	496238	492107	498278	507267
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217857	217874	217868	217875	217880	217944
Name	G-3565	G-3567	G-3577	G-3676	G-3760	G-3761
Map Designator						
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)						8
Total Depth(feet)	19	18.7	8	33	72.7	16.3
Cased Depth(feet)	14	13.7	0	23	70.7	
Facility Elev. (ft. NGVD)						
Screened Interval						
From						
To						
Pumped Or Flowing						
Pump Type	None	None	None	None	None	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location						
Source						
Feet East	852082	841565	820631	845381	842356	842339
Feet North	498927	596563	497721	529396	548457	548452
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Water Table Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217876	257890	257891	257892	257893	217883
Name	G-3818	G-3885	G-3886	G-3887	G-3888	G-3897
Map Designator		G-3885	G-3886	G-3887	G-3888	SWWF-1(Boystown Pin
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)		2	2	2	2	6
Total Depth(feet)	20	107	109	134	149	22.5
Cased Depth(feet)	15	76	86	80	103.5	22.5
Facility Elev. (ft. NGVD)						
Screened Interval						
From		76	86	80	103.5	
To		81	91	85	113.5	
Pumped Or Flowing						
Pump Type	None	Unspecified	Unspecified	Unspecified	Unspecified	None
Pump Int. Elev.						
Feet (NGVD)		6.19	9.54	9.7	13.67	
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled		2009	2009	2009	2009	2009
Planar Location						
Source						APPLICANT
Feet East	836580	863870	876430	888022	903086	847536
Feet North	549140	441922	457549	481537	519784	483700
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	217884	217885	217887	217886	257894	257895
Name	G-3898	G-3899	G-3900	G-3901	G-3946	G-3947
Map Designator	WWF-1SW	SMH-1	Newton 1	Ever 1	G-3946	G-3947
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	6	6	6	6		
Total Depth(feet)	22.8	20.5	22	22.3	99	230
Cased Depth(feet)	22.8	20.5	22	22.3	90	200
Facility Elev. (ft. NGVD)						
Screened Interval						
From						
To						
Pumped Or Flowing						
Pump Type	None	None	None	None	Unspecified	Unspecified
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled	2009	2009	2009	2009		
Planar Location						
Source	APPLICANT	APPLICANT	APPLICANT	APPLICANT		
Feet East	828900	861418	838647	850586	863870	915184
Feet North	495915	450646	407718	394645	441939	546997
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor Water Shortage Monitoring Facility	Monitor Water Shortage Monitoring Facility	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer	Biscayne Aquifer

TABLE - A
Description Of Wells.

Application Number: 140627-12

Well ID	257896	257897	217829	270263	217831	217832
Name	G-3948	G-3949	FA-3N NDWWTP	FA-1 (Replaces FA-5)	ASR MW-1 (WEST)	ASR MW-1 (SW)
Map Designator	G-3948	G-3949	NDWWTP FA-3N	FA-1	ASR MW-1	SWWF MW-1
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)						
Total Depth(feet)	279		1510	1890	1396	1200
Cased Depth(feet)			1410	1890	1350	1110
Facility Elev. (ft. NGVD)						
Screened Interval						
From					855	845
To					1010	900
Pumped Or Flowing			F			F
Pump Type	Unspecified	Unspecified	None	None	None	None
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)						
Pump Capacity(GPM)	0	0	0	0	0	0
Year Drilled						
Planar Location Source						
Feet East	926769	930332		817470		
Feet North	577670	591728		443075		
Accounting Method	None	None	None	None	None	None
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Biscayne Aquifer	Biscayne Aquifer	Upper Floridan Aquifer	Floridan Aquifer System	Upper Floridan Aquifer	Upper Floridan Aquifer

TABLE - A
Description Of Wells.

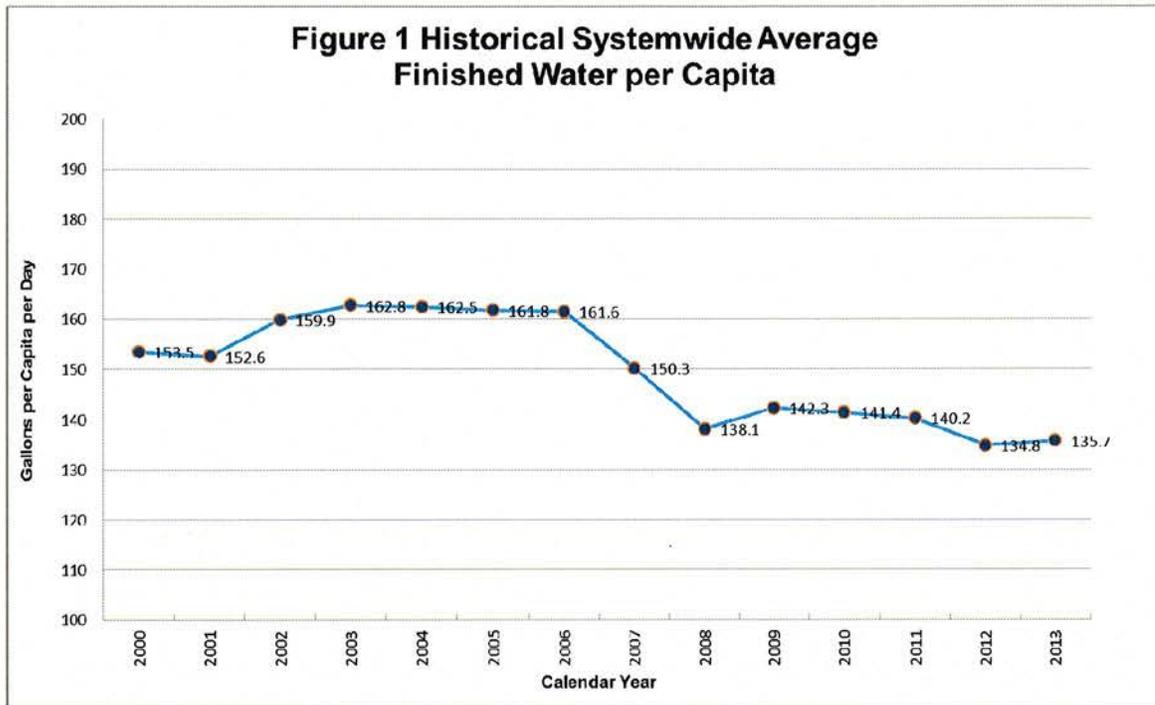
Application Number: 140627-12

Well ID	217833	268268	265515
Name	CHI SDWWTP	G-3913	NW-3AR (replaces NW-
Map Designator	Central Hospital	G-3913	
FLUWID Number			
Well Field			
Existing/Proposed	E	E	E
Well Diameter(Inches)		4	
Total Depth(feet)	1500	74	88
Cased Depth(feet)	1400	63.5	83
Facility Elev. (ft. NGVD)			
Screened Interval			
From	1000		
To	1100		
Pumped Or Flowing	F		
Pump Type	None	None	None
Pump Int. Elev.			
Feet (NGVD)		7.25	
Feet (BLS)			
Pump Capacity(GPM)	0	0	0
Year Drilled		2010	
Planar Location			
Source		APPLICANT	
Feet East		866757.441	841714
Feet North		496754.022	562395
Accounting Method	None	None	None
Use Status	Monitor	Primary	Monitor
Water Use Type	Monitor	Monitor	Monitor
Aquifer	Upper Floridan Aquifer	Biscayne Aquifer	Biscayne Aquifer

SECTION I - PLAN IMPLEMENTATION

The Conserve Florida BMPs that MDWASD has implemented as part of the Water Use Efficiency Plan are shown in this Report in Appendix A.

As a result of the implementation of the BMPs and the landscape irrigation restriction measures, Miami-Dade County has continued to see a lower than expected per capita water consumption. Figure 1 reflects the historical systemwide per capita, showing the effectiveness of all of MDWASD's water efficiency strategies. It should be noted that the historic per capita calculations have been revised based on the most current population data Miami-Dade County Planning Division of the Regulatory and Economic Resources



Notes:

1. Data from Table F, revised April 3, 2014
2. Per capita from 2008 to 2013, per finished water flows reported to SFWMD
3. Historic Population from 2001 – 2009 adjusted downward based on data from Miami-Dade County Planning Division of the Regulatory and Economic Resources Department. 2010-2013 represents the 2010 TAZ population projections by the Miami-Dade County Planning Division.

Table F (September 2014)
Miami-Dade Water and Sewer Department (MDWASD)
Past Water Use (2004-2013)

1	2	3	4	5	6	7	8	9	10	11	12	13
FINISHED WATER HISTORICAL USE							RAW WATER HISTORICAL USE ^(a)					Ratio Finished:Raw (Total Annual Use)
Year	Population Served *	Per Capita Usage (gpcd)	Total Annual Use (MG)	Average Month Use (MG)	Max Month Use (MG)	Ratio Max : Aver. Month	Per Capita Usage (gpcd)	Total Annual Use (MG)	Average Month Use (MG)	Max Month Use (MG)	Ratio Max : Aver. Month	
TOTAL MDWASD WATER SYSTEM SERVICE AREA **												
2004	2,090,099	162.5	124,301	10,358	10,861.1	1.05	165.6	126,685	10,557	11,063	1.05	1.019
2005	2,101,772	161.8	124,098	10,342	10,734.8	1.04	165.1	126,670	10,556	11,031	1.04	1.021
2006	2,113,445	161.6	124,677	10,390	10,988.6	1.06	164.7	127,019	10,585	11,170	1.06	1.019
2007	2,125,118	150.3	116,602	9,717	10,485.4	1.08	151.6	117,585	9,799	10,648	1.09	1.008
2008	2,136,791	138.1	108,029	9,002	9,583.0	1.06	149.4	116,820	9,735	10,508	1.08	1.081
2009	2,148,464	142.3	111,627	9,302	9,662.7	1.04	151.2	118,575	9,881	10,550	1.07	1.062
2010	2,160,138	141.4	111,453	9,288	9,700.0	1.04	151.0	119,056	9,921	10,346	1.04	1.068
2011	2,181,073	140.2	111,585	9,299	9,597.6	1.03	149.2	118,768	9,897	10,273	1.04	1.064
2012	2,202,008	134.8	108,626	9,052	9,693.9	1.07	142.5	114,807	9,567	10,223	1.07	1.057
2013	2,222,944	136.5	111,052	9,254	9,483.7	1.02	144.6	117,623	9,802	10,252	1.05	1.059
3-year Average (2011- 2013)	-	137.2	-	-	-	1.04	145.4	-	-	-	1.05	1.060

EXHIBIT 7

* Source of Population Information: Miami-Dade County (MDC) Planning Department. Historic Population 2001 to 2009 adjusted (downward) based on, and 2010 to 2013 represents the 2010TAZ population projections by the MDC Planning Department, based on 2010 Census.

** For 2004 - 2007 from MDWASD Raw & Finished Water Historical Data, For 2008 - 2013 from MDWASD reports to SFWMD of Water Treatment Plant Influent & Effluent Flow Meter Flows

(a) Raw-to-finished water ratio is 1.06. MDWASD is improving its raw water metering/accounting system.

**TABLE G (Revised January 2015)
MDWASD PROJECTED RAW WATER DEMAND BY SOURCE**

1	2	3	4	5	6	7	8	9	19	20	21	22	23	24	25	26	27	28	29	
Year	PROJECTIONS (2013) FOR MDWASD SERVICE AREA								CITY OF HOMESTEAD Finished Water Demand (MGD)	AADD Finished Water "SURPLUS" (Col. 18 - Col. 9 - Col. 7)	RAW WATER AADD (MGD)									
	Population ^(a)	Finished Water Use (gpcd)	AADD Finished Water Use ^(b) (MGD)	Water Conservation ^(c) (MGD) Credit	Reuse/ Reclaimed Water (MGD) Credit	Adjusted Finished Water Demand ^(e) (MGD)	Adjusted Finished Water Use (gpcd)	Biscayne Aquifer ^(f)					Floridan Aquifer					Total All Sources		
								South Dade ^(g)			South Miami Heights (SMH) Membrane Softening WTP ^(i,m)	Hialeah-Preston/Alexander-Orr Lime Softening ^(j,n)	ASR Losses ^(k)	Total Biscayne Aquifer ^(f,n)	Hialeah RO WTP ^(l)	South Miami Heights (SMH) RO WTP ^(m)	Total Floridan Aquifer			
								Elevated Tank/ Leisure City/ Naranja											Everglades Labor Camp/ Newton ^(h)	
System-Wide																				
2014	2,243,879	137.2	307.79	1.36	0.00	306.43	136.56	2.50	0.00	4.30	4.08	0.00	310.63	0.14	319.15	10.00	0.00	10.00	329.15	
2015	2,266,092	137.2	310.84	2.04	0.00	308.80	136.27	3.00	0.00	4.30	4.10	0.00	311.00	0.14	319.54	13.30	0.00	13.30	332.84	
2020	2,370,769	137.2	325.20	5.44	0.00	319.76	134.88	3.00	0.00	0.00	4.10 (h)	3.00	315.63	0.14	318.77	13.30	16.60	29.90	348.67	
2025	2,475,446	137.2	339.56	8.84	0.00	330.72	133.60	3.00	0.00	0.00	4.10 (h)	3.00	327.24	0.14	330.38	13.30	16.60	29.90	360.28	
2030	2,580,123	137.2	353.92	9.55	0.00	344.37	133.47	3.00	0.00	0.00	4.10 (h)	3.00	341.71	0.14	344.85	13.30	16.60	29.90	374.75	
2031	2,601,058	137.2	356.79	9.55	0.00	347.24	133.50	3.00	0.00	0.00	4.10 (h)	3.00	339.45	0.14	342.59	13.30	23.27	36.57	379.16	
2032	2,621,994	137.2	359.66	9.55	0.00	350.11	133.53	3.00	0.00	0.00	4.10 (h)	3.00	342.50	0.14	345.64	13.30	23.27	36.57	382.21	
2033	2,642,929	137.2	362.53	9.55	0.00	352.98	133.56	3.00	0.00	0.00	4.10 (h)	3.00	346.36	0.14	349.50	13.30	23.27	36.57	386.07	

MDWASD PROJECTED FINISHED WATER DEMAND BY SOURCE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Year	PROJECTIONS (2013) FOR MDWASD SERVICE AREA								CITY OF HOMESTEAD Finished Water Demand (MGD)	ADJUSTED FINISHED WATER AADD (MGD)							
	Population ^(a)	Finished Water Use (gpcd)	AADD Finished Water Use ^(b) (MGD)	Water Conservation ^(c) (MGD) Credit	Reuse/ Reclaimed Water (MGD) Credit	Adjusted Finished Water Demand ^(e) (MGD)	Adjusted Finished Water Use (gpcd)	Biscayne Aquifer				Floridan Aquifer				Total All Sources	
								South Dade ^(g)		South Miami Heights (SMH) Membrane Softening WTP ^(i,m)	Hialeah-Preston/Alexander-Orr Lime Softening ^(j)	Total Biscayne Aquifer ^(f)	Hialeah RO WTP ^(l)	South Miami Heights (SMH) RO WTP ^(m)	Total Floridan Aquifer		
								Elevated Tank/ Leisure City/ Naranja									Everglades Labor Camp/ Newton ^(h)
System-Wide																	
2014	2,243,879	137.2	307.79	1.36	0.00	306.43	136.56	2.50	4.30	4.08	0.00	293.05	301.43	7.50	0.00	7.50	308.93
2015	2,266,092	137.2	310.84	2.04	0.00	308.80	136.27	3.00	4.30	4.10	0.00	293.40	301.80	10.00	0.00	10.00	311.80
2020	2,370,769	137.2	325.20	5.44	0.00	319.76	134.88	3.00	0.00	4.10 (h)	2.55	297.76	300.31	10.00	12.45	22.45	322.76
2025	2,475,446	137.2	339.56	8.84	0.00	330.72	133.60	3.00	0.00	4.10 (h)	2.55	308.72	311.27	10.00	12.45	22.45	333.72
2030	2,580,123	137.2	353.92	9.55	0.00	344.37	133.47	3.00	0.00	4.10 (h)	2.55	322.37	324.92	10.00	12.45	22.45	347.37
2031	2,601,058	137.2	356.79	9.55	0.00	347.24	133.50	3.00	0.00	4.10 (h)	2.55	320.24	322.79	10.00	17.45	27.45	350.24
2032	2,621,994	137.2	359.66	9.55	0.00	350.11	133.53	3.00	0.00	4.10 (h)	2.55	323.11	325.66	10.00	17.45	27.45	353.11
2033	2,642,929	137.2	362.53	9.55	0.00	352.98	133.56	3.00	0.00	4.10 (h)	2.55	325.98	328.53	10.00	17.45	27.45	355.98

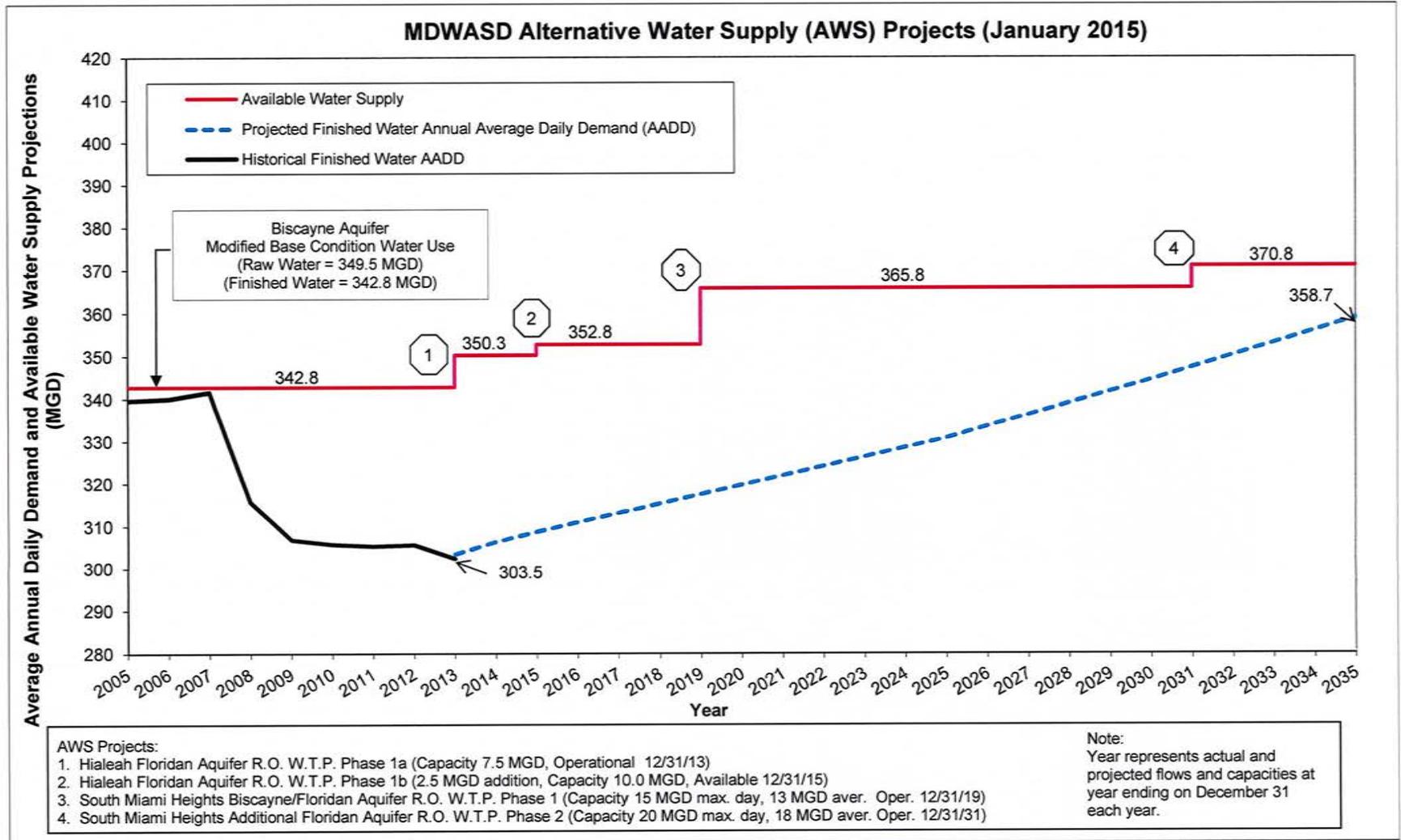
EXHIBIT 8A

TABLE G (Revised January 2015)
MDWASD PROJECTED RAW AND FINISH WATER DEMAND BY SOURCE

Footnotes

- (a) Population Served represents most recent represents the 2010TAZ population projections by the MDC Planning Department.
- (b) Annual Average Daily Demand (AADD) Finished Water Projections between 2014 and 2035 assume 137.2 gpcd (a decrease from 145.4 gpcd) total water system demand prior to application of credits (e.g. conservation).
- (c) WASD has implemented a 20-year water use efficiency plan and is experiencing reductions in per capita water consumption. Water Conservation projections were revised based on the 2010 Annual Water Conservation Plan Conserve Florida Report (March 2011). Real losses in non-revenue water (e.g. unaccounted-for-water) are assumed to remain at less than 10%. The conservation amounts experienced through 2010 (6.54 MGD) were deducted from the 20-year conservation amount in the Conserve Florida Report and the remaining conservation amounts were distributed for the balance of the 20-year period (2011-2027).
- (d) Not Used (TBD).
- (e) Adjusted after taking credit in finished water demand projections for reductions in finished water use associated with water conservation.
- (f) The Modified Base condition raw water use (349.5 mgd) represents values agreed to by SFWMD and MDWASD and demonstrated by modeling to not cause a net increase in water from the regional canal system. Biscayne Aquifer base condition raw water use allocation of 349.5 mgd (South Dade at 7.1 mgd, North and South at 342.4 mgd) equates to 342.8 mgd of finished water annual average daily demand (AADD).
- (g) South Dade (Raw : Finished) Ratio = 1.0 : 1.0
- (h) Everglades Labor Camp and Newton are to remain as *stand-by* once the SMH WTP starts up. This *stand-by* capacity is not used in the total raw and finished water amounts.
- (i) Assumes withdrawals from Elevated Tank, Leisure City, Naranja, Caribbean Park, Former Plant, and Roberta Hunter Park are consolidated. Biscayne Aquifer supplied Membrane Softening (Raw : Finished) Ratio = 1.17 : 1.00 (85% Recovery).
- (j) Hialeah-Preston / Alexander-Orr (Raw : Finished) Ratio = 1.060 : 1.00 (Lime Softening)
- (k) The values are based on initial cycle testing of the ASR well facilities and the projected seasonal operations of the ASR well facilities at full design capacities with the storing of Biscayne aquifer water during the wet weather months of June through October and the recovery of the stored Biscayne aquifer water during the dry weather months of December through April, assuming an ultimate storage loss of 1.31%.
- (l) Floridan Aquifer supplied RO WTP (Raw : Finished) Ratio = 1.333 : 1.00 (75% recovery)
- (m) At an ultimate 20 mgd plant operating capacity, the raw water withdrawal would be 3.00 MGD from the Biscayne and 23.27 MGD from the Floridan in accordance with the Wellfield Operation Plan. In order to maintain operational flexibility and protect the nanofiltration membranes (Biscayne supply), MDWASD is requesting that the WTP be allowed to operate with up to a constant supply of 3.0 MGD from the Biscayne aquifer and the rest, to meet demand, be provided from the Floridan aquifer. The full use of the small Biscayne aquifer allocation at SMH supplemented by Floridan aquifer water will allow a blended finished water product that is expected to be lower in sodium and chloride, which will be beneficial to customers on low sodium diets, and more will require less chemical addition for product water stabilization.
- (n) An additional 0.82 MGD of Raw Water AADD has been included in year 2033 for Hialeah-Preston / Alexander Orr Lime Softening to maintain the total Biscayne aquifer Modified Base condition raw water use at 349.5 mgd and to provide needed operational flexibility in withdrawals of Floridan aquifer water.

EXHIBIT 9



Alternative Water Supply Projects Step Chart January 2015

MDWASD Biscayne Aquifer Wellfields Operation Plan Summary (Revised January 2015)

1	2	3	4	5	6	7	8	9	10	11	12	13	
WTP Subarea and Wellfield	Existing Wellfield Data (2014)		Historic ^(b) Base Condition Annual Average Pumpage (MGD)	Revised Base Condition Annual Average Pumpage (MGD)	Individual Wellfield ANNUAL AVERAGE Pumpage Allocation								Remarks
	Design Capacity (mgd)	Number of Wells			2014-2018		2019 - 2025		2026 - 2030		2031 - 2033		
					BG	(mgd)	BG	(mgd)	BG	(mgd)	BG	(mgd)	
Hialeah-Preston ^(c)													
Hialeah	12.54	3	3.1	70.0	25.550	70.00	25.550	70.00	25.550	70.00	25.550	70.00	Total <u>not</u> to exceed 25.500 BGY
John E. Preston	53.28	7	37.2										
Miami Springs	79.3	20	29.7										
Medley	48.96	4	0										
Northwest ^(a)	149.35	15	88.7	96.8	35.332	96.80	35.332	96.80	35.332	96.80	35.332	96.80	
Subtotal	343.43	49	164.5	155.4	56.721	155.40	56.721	155.40	56.721	155.40	56.721	155.40	
Alexander Orr ^(d)													
Alexander Orr	74.40	10	62.0	40.0	62.524	171.30	62.524	171.30	62.524	171.30	62.524	171.30	
Snapper Creek	40.00	4	20.4	21.9									
Southwest	161.20	17	83.8	109.4									
West	32.40	3	15.0	15.0									
Subtotal	308.00	34	181.2	186.3	67.999	186.30	67.999	186.30	67.999	186.30	67.999	186.30	
South Dade ^(e)													
Elevated Tank	4.32	2	1.3	1.3	1.570	4.30	-	-	-	-	-	-	Drops out when SMH comes on line in 2019. Turning off at 4.3 mgd resulted in a 2.5 mgd reduction in impact to regional canals, making 2.5 mgd available to SMH wellfield.
Leisure City	4.18	4	2.9	2.9									
Naranja	1.15	1	0.1	0.1									
Everglades Labor Camp ^(e)	5.04	3	0.7	2.2									
Newton ^(e)	4.32	2	2.1	2.6	1.752	4.80	1.752	4.80	1.752	4.80	1.752	4.80	Goes to standby after SMH comes online in 2019. Subject to limitation of 4.8 mgd (1.752 BGY) and system wide total not-to-exceed allocation.
Subtotal	19.01	12	7.1	7.8	2.847	7.80	1.752	4.80	1.752	4.80	1.752	4.80	
South Miami Heights ^(f)													
Former Plant	4	1	NA	NA	-	-	1.095	3.00	1.095	3.00	1.095	3.00	Initial 2.5 mgd transfer from shut down of 4.3 mgd at South Dade plus 0.5 mgd additional
Roberta Hunter Park	6	4	NA	NA									
Subtotal	10.00	5			0.000	0.00	1.095	3.00	1.095	3.00	1.095	3.00	
MDWASD System Total	680.44	100	347.0	349.5	127.567	349.50	127.567	349.50	127.567	349.50	127.567	349.50	System wide allocation, not less than revised baseline allocation, not the sum of individual wellfield pumpage allocations, and may be more restrictive.
Total Not-To-Exceed System Wide Pumpage			Annual in BGY (mgd)		127.567	349.50	127.567	349.50	127.567	349.50	127.567	349.50	

Notes: BG = Billion Gallons; MGD = Million Gallons per Day

(a) Northwest wellfield design capacity at 110 mgd when pumps operate at low speed.

(b) These numbers are based on historical raw water values at the treatment plants for a 12-month running average during the five-year period preceding 4/1/2006 in accordance with SFWMD Water Availability Rule (April 28, 2007). Values for the individual wellfields are approximations.

(c) Base Condition Water Use of the North System, Hialeah-Preston is 164.5 mgd. The base condition impacts of 9.1 mgd for historical water deliveries by MDWASD to City of North Miami Beach were transferred to the City with re-issuance of their permit in July 2007; revising the base condition to 155.4 mgd.

(d) Base Condition Water Use of the Central System, Alexander Orr is 181.2 mgd. It was demonstrated through modeling that transferring 22.0 MGD from Alexander Orr WTP well field to the Southwest and an additional withdrawal of 1.5 MGD at Snapper Creek and 3.6 MGD at Southwest would not cause a net increase in volume or cause a change in timing of surface and groundwater from Everglades water bodies, consistent with Section 3.2.1.E(2) of the BOR; revising the base condition to 214.18 mgd.

(e) The South Dade allocation associated with Elevated Tank, Leisure City, and Naranja is transferred to SMH when the new WTP is planned to begin operation in 2019. Everglades Labor Camp and Newton wellfields are placed in stand by service after the SMHWTP begins planned operations in 2019, with operations limited to minimum amount required to maintain operational readiness and Florida Department of Health clearance. For Everglades Labor Camp and Newton the historical pumpage of 2.8 mgd was increased by 1.5 mgd at Everglades Labor Camp and 0.5 mgd at Newton to 4.8 mgd total, consistent with Section 3.2.1E(2) of the Basis of Review for Water Use Applications within the South Florida Water Management District. Turning off Elevated Tank, Leisure City, and Naranja at 4.3 mgd results in a 2.5 mgd reduction in impact to regional canals, therefore 2.5 mgd is available to transfer to SMH wellfield, plus an additional 0.5 mgd was allowed to account for the reduced treatment efficiency of the proposed membrane softening plant, pursuant to Section 3.2.1E(3)(a).

(f) These proposed facilities are for membrane softening portion of SMH Water Treatment Plant.

EXHIBIT 10A

Table 4 - MDWASD Floridan Aquifer Wellfields Operation Plan Summary (January 2015) Pumpage by Wellfield

1	2	3	4	5	6	7	8	9	10
WTP Subarea and Wellfield	Wellfield Data		Individual Wellfield ANNUAL Pumpage / Allocation						Remarks
	Design Capacity (mgd)	Number of Wells	2014 - 2018		2019 - 2030		2031 - 2033		
			BG	(mgd)	BG	(mgd)	BG	(mgd)	
Hialeah RO WTP ^(a)	20.00	14	4.855	13.30	4.855	13.30	4.855	13.30	See Footnote (a)
Alexander Orr WTP (Use of Floridan Aquifer Wells for ASR) ^(b)									
Southwest Wellfield ASR	10.00	2	(1.542)	10.08	(1.542)	10.08	(1.542)	10.08	See Footnote (b)
			1.522	10.08	1.522	10.08	1.522	10.08	
West Wellfield ASR	15.00	3	(2.313)	15.12	(2.313)	15.12	(2.313)	15.12	
			2.283	15.12	2.283	15.12	2.283	15.12	
South Miami Heights WTP (Use of Floridan Aquifer Wells for RO) ^(c)									
South Miami Heights WTP ^(c)	24.00	7	0	0.00	6.059	16.60	8.494	23.27	See Footnote (c)
MDWASD System Total	69.00	26							
Total Not-To-Exceed Pumpage	Annual Average		4.805	13.30	10.864	29.90	13.299	36.57	

Notes

BG = Billion Gallons; MGD = Million Gallons per Day

(a) New Upper Floridan Aquifer RO WTP - Finish water supply of 10.0 mgd, 7.5 mgd Phase 1a by Dec. 31, 2013, 10.0mgd Phase 1b by Dec. 31, 2015. Initial six (6) Floridan aquifer supply wells completed prior to Dec. 31, 2013; an additional four (4) Floridan aquifer supply wells to be completed prior to Dec. 31, 2015; with potential for an additional four (4) Floridan aquifer supply wells if needed.

(b) Based on 153 days of storage (indicated as negative withdrawal) and 151 days of recovery (positive withdrawal) per ASR well a year. Excludes initial Cycle and Operational Testing of the ASR Wells and ASR Facility UV Disinfection System Testing (Testing is currently underway at Southwest Wellfield ASR and is pending at West Wellfield ASR).

(c) New Upper Floridan Aquifer RO Treatment at South Miami Heights WTP (Phase 1 Finish water supply of 12.45 mgd by Dec. 31, 2019 with Phase 2 total Finish water supply of 17.45 mgd by Dec. 31, 2031)

EXHIBIT 10B

Revised January 2015

Revised Base Condition Pumping Rates (revised 6/29/2012)									
Subarea	Wellfield	Wellfield Base Condition Pumpage ^(a) (Pre 4/2006)		Base Condition Transfers ^{(b) (c) & (d)}		Modeled Transfers (Not inducing additional Regional Water demands)		Modified Base Condition Water Use	
		BGY	(mgd)	BGY	(mgd)	BGY	(mgd)	BGY	(mgd)
North Hialeah-Preston ^(b) (13-00037-W)	Hialeah	1.132	3.1	-3.322	-9.1			25.550	70.0
	John E. Preston	13.578	37.2						
	Medley								
	Miami Springs	10.841	29.7						
	Northwest	35.332	96.8					32.376	88.70
Permit Base Condition (13-00037-W) ^(b)		60.042	164.5	-3.322	-9.1	0.000	0.0	56.720	155.4
Central Alexander Orr ^(c) (13-00017-W)	Alexander Orr	22.630	62.0	-8.030	-22.0			62.524	171.3
	Snapper Creek	7.446	20.4			0.547	1.5		
	Southwest	30.586	83.8	8.030	22.0	1.314	3.6		
	West	5.475	15.0					5.475	15.0
Permit Base Condition (13-00017-W) ^(c)		66.138	181.2	0.000	0.0	1.861	5.1	67.999	186.3
South Dade (13-00040-W)	Elevated Tank ^(d)	0.475	1.3	-0.475	-1.3			1.571	4.3
	Leisure City ^(d)	1.067	2.9	-1.059	-2.9				
	Naranja ^(d)	0.037	0.1	-0.037	-0.1				
	Everglades Labor Camp ^(e)	0.256	0.7			0.547	1.5	1.752	4.8
	Newton ^(e)	0.767	2.1			0.182	0.5		
	South Miami Heights ^(d)			1.095	3.0			1.095	3.0
Permit Base Condition (13-00040-W)		2.592	7.1	-0.475	-1.3	0.729	2.0	2.847	7.8
SYSTEM-WIDE TOTAL BASE CONDITION PUMPING RATE ^(f)		128.772	352.8	-3.797	-10.4	2.590	7.1	127.566	349.5

Notes:

(a) Numbers were based on 12-month running average; values for individual wellfields are approximate. The sum of individual wellfield pumpages are higher than overall permit base condition due to differences in time period when the individual wellfield base volumes were established.

(b) Base Condition Water Use of the North System, Hialeah-Preston is 164.5 mgd. The base condition impacts of 9.1 mgd for historical water deliveries by MDWASD to City of North Miami Beach were transferred to the City with re-issuance of their permit in July 2007.

(c) Base Condition Water Use of the Central System, Alexander Orr is 181.2 mgd. It was demonstrated through modeling that transferring 22.0 MGD from Alexander Orr WTP well field to the Southwest and an additional withdrawal of 1.5 MGD at Snapper Creek and 3.6 MGD at Southwest would not cause a net increase in volume or cause a change in timing of surface and groundwater from Everglades water bodies, consistent with Section 3.2.1.E(2) of the BOR.

(d) Base Condition Water Use of the South Dade System is 7.1 mgd. Turning off 4.3 mgd at Elevated Tank, Leisure City and Naranja results in a 2.5 mgd reduction in impact on regional canals; therefore 2.5 is available to transfer to SMH wellfield. Increasing from 2.5 mgd to 3.0 mgd was allowed to account for the reduced treatment efficiency of the proposed membrane softening plant, pursuant to Section 3.2.1E(3)(a).

(e) The base condition water use for Newton is 2.1 mgd and for Everglades Labor Camp is 0.7 mgd. It was demonstrated through modeling that an additional withdrawal of 0.5 MGD at Newton and 1.5 MGD at Everglades wellfields would not cause a net increase in volume or cause a change in timing of surface and groundwater from Everglades water bodies, consistent with Section 3.2.1.E(2) of the BOR.

(f) All proposed Biscayne aquifer withdrawals above the revised base condition water use are proposed to be offset through the use of reclaimed water to recharge groundwater and canals in the vicinity of the wellfields.

EXHIBIT 10C

Revised 6/29/2012

Wholesale Customer Treated Water Deliveries

Entity	Treatment Plant	Deliveries in Millions gallons per fiscal year					
		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Bal Harbor	Hialeah-Preston	466	455	486	430	494	407
Bay Harbor Islands	Hialeah-Preston	329	317	302	310	309	318
Hialeah	Hialeah-Preston	8110	9103	9598	9121	9429	7285
Hialeah Gardens	Hialeah-Preston	695	654	693	591	576	638
Homestead ⁽¹⁾	Alexander Orr	0	0	0	40	151	188
Indian Creek Village	Hialeah-Preston	140	121	133	122	120	117
Medley	Hialeah-Preston	393	400	328	479	516	470
Miami Beach	Hialeah-Preston	6489	6952	8410	7918	7903	7615
Miami Springs ⁽²⁾	Hialeah-Preston	-	-	-	-	-	-
North Bay Village	Hialeah-Preston	365	395	387	391	415	405
North Miami	Hialeah-Preston	1502	1175	1331	1374	1655	1693
North Miami Beach ⁽³⁾	Hialeah-Preston	107	100	-	-	-	-
Opa-Locka	Hialeah-Preston	845	788	887	876	876	895
Surfside	Hialeah-Preston	343	328	317	312	299	303
Virginia Gardens	Hialeah-Preston	100	98	91	93	95	91
West Miami	Alexander Orr	290	293	275	292	236	278
Water Received from Others		386	145	179	152	172	NA

(1) Homestead usage of water is limited to an as needed basis. Their usage is not consistent to that of a wholesale customer.

(2) The City of Miami Springs water system was purchased by WAsD and beginning fiscal year 2009, was no longer a wholesale customer. WAsD is now providing direct services to customers.

(3) North Miami Beach constructed their own water plant and beginning fiscal year 2009, has not had the need to purchase significant amounts of water.

* Volumes for North Miami Beach reflect total delivered minus water passed thru for Aventura.

EXHIBIT 11

January 2015

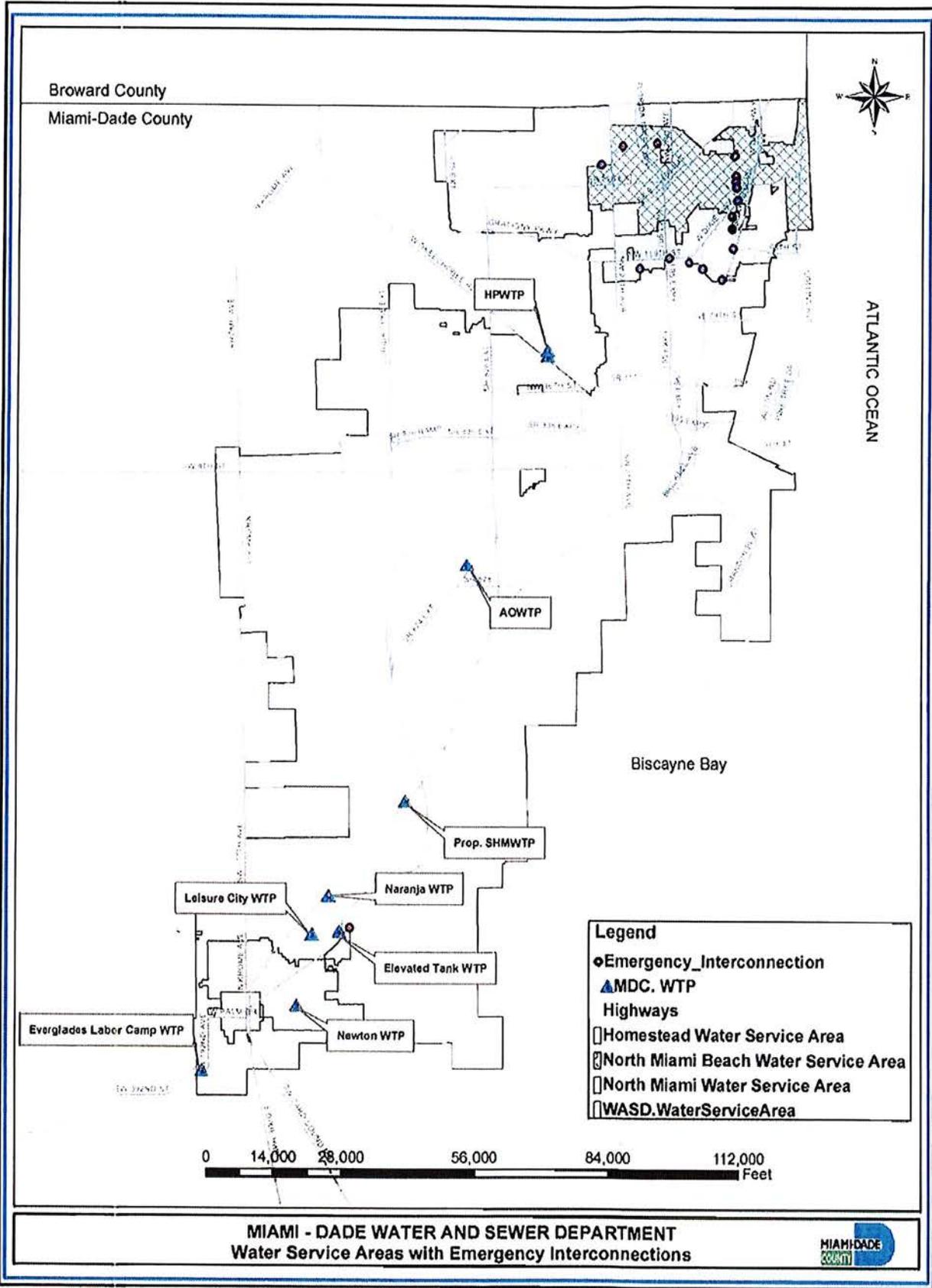
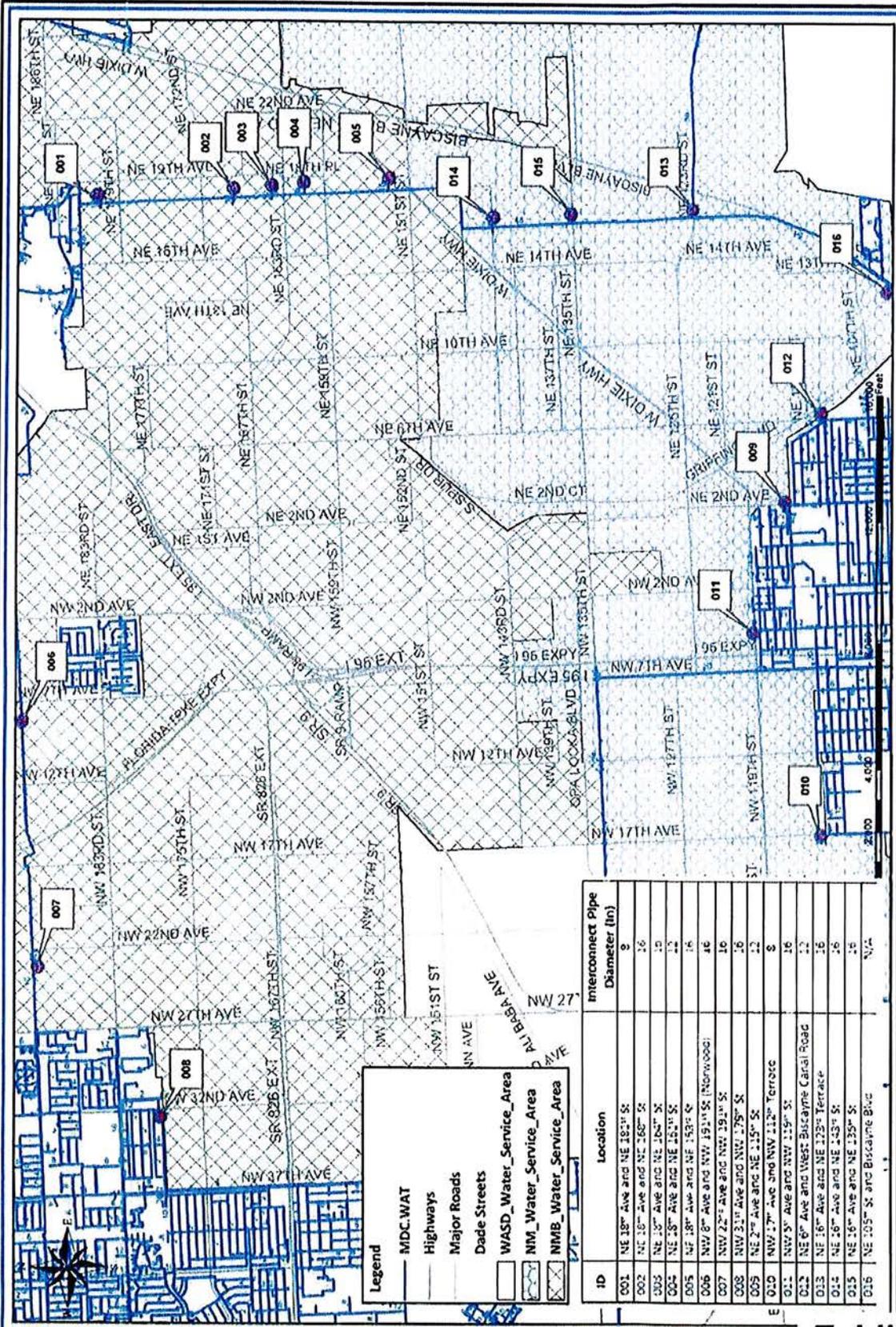


Exhibit 12A



Legend

- MDC, WAT
- Highways
- Major Roads
- Dade Streets
- WASD_Water_Service_Area
- NM_Water_Service_Area
- NMB_Water_Service_Area

ID	Location	Interconnect Pipe Diameter (in)
001	NE 18th Ave and NE 18th St	8
002	NE 16th Ave and NE 16th St	16
003	NE 15th Ave and NE 15th St	12
004	NE 15th Ave and NE 15th St	12
005	NE 18th Ave and NE 15th St	16
006	NW 8th Ave and NW 19th St (Northwood)	16
007	NW 2nd Ave and NW 19th St	10
008	NW 3rd Ave and NW 17th St	16
009	NE 2nd Ave and NE 11th St	12
010	NW 17th Ave and NW 12th Terrace	8
011	NW 5th Ave and NW 11th St	16
012	NE 6th Ave and West Biscayne Canal Road	12
013	NE 16th Ave and NE 12th Terrace	16
014	NE 16th Ave and NE 14th St	16
015	NE 16th Ave and NE 13th St	16
016	NE 10th St and Biscayne Blvd	N/A

MIAMI - DADE WATER AND SEWER DEPARTMENT
North Miami and North Miami Beach Emergency Interconnections



Alternative Water Supply Project Development

Project / Milestone	Average Finish Water daily flow	Milestone Completion Date
Hialeah Floridan Aquifer R.O. WTP, Phase 1-a, 10.0 mgd WTP and initial 6 Floridan aquifer supply wells. (7.5 mgd, limited by water supply)	(7.5 mgd)	
• Notice To Proceed Design / Permit		Completed
• Notice To Proceed Construction		Completed
• Turnover / Project Completion		Completed
Hialeah Floridan Aquifer R.O. WTP, Phase 1-b, additional 4 Floridan aquifer supply wells. (10.0 mgd, maximum treatment capacity)	(2.5 mgd)	
• Notice To Proceed Design / Permit		Completed
• Notice To Proceed Construction		Completed
• Turnover / Project Completion		12/31/2015
South Miami Heights WTP (R.O. portion) Phase 1	(12.45 mgd)	
• Notice To Proceed Design / Permit		Completed
• Notice To Proceed Construction		12/31/2016
• Turnover / Project Completion		12/31/2019
South Miami Heights WTP (R.O. addition) Phase 2	(5.0 mgd)	
• Notice To Proceed Design / Permit		Completed
• Notice To Proceed Construction		12/31/2028
• Turnover / Project Completion		12/31/2031

EXHIBIT 13

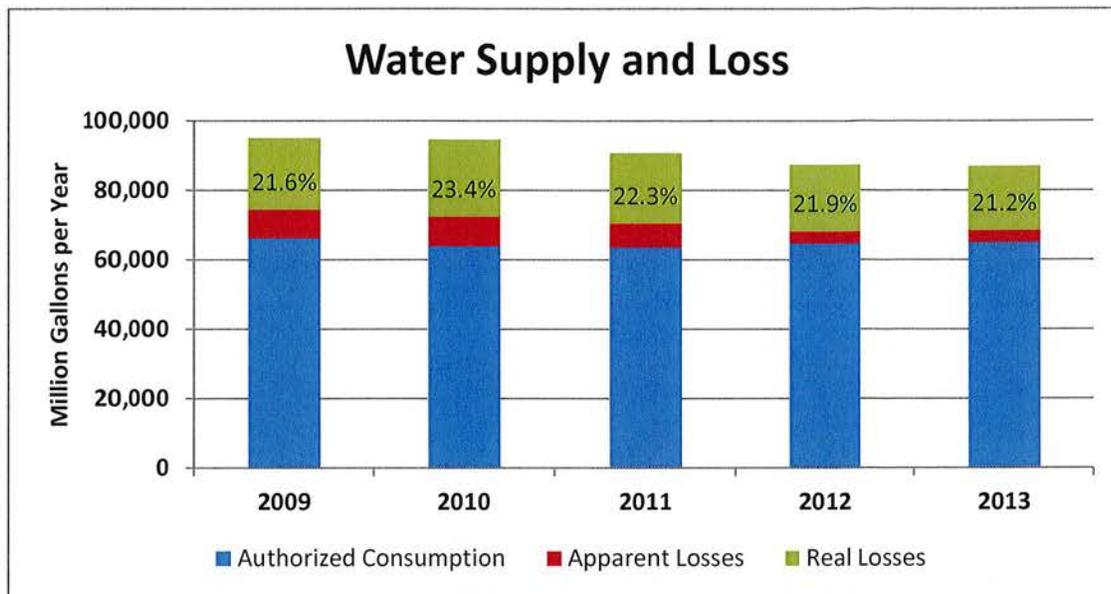
Revised January 2015

Reuse Projects

Project	Reclaimed water generated from and amount to be treated	Quantity of Reclaimed Wastewater Applied	Reclaimed water used for	Anticipated Completion
1.	North District WWTP (Permitted) 4.44 MGD	4.44 MGD	2.94 MGD Industrial & 1.5 MGD Public Access	Existing
2.	Central District WWTP (Previous Permitted Limit) 7.84 MGD	7.84 MGD	Industrial Use Only	Existing
3.	South District WWTP (Previous Permitted Limit) 4.17 MGD	4.17 MGD	Industrial & Non-Public Access Irrigation	Existing
TOTAL EXISTING PROJECTS (PERMITTED) = 16.49 MGD				
4.	South District WWTP 9.2 MGD	9.2 MGD	Floridan aquifer recharge. The scope of these projects is part of the Ocean Outfall legislation implementation plan submitted to the Secretary of FDEP on June 28, 2013.	Dec 31, 2025
5.	Central District WWTP 9.2 MGD	9.2 MGD		Dec 31, 2025
6.	West District Water Reclamation Plant 9.2 MGD	9.2 MGD		Dec 31, 2025
7.	South District WWTP 90 MGD	90 MGD	TPoint Units 5 & 6 cooling TP Unit 7 cooling	Dec 31, 2022 Dec 31, 2023
TOTAL NEW PROJECTS = 117.5 MGD				Dec 31, 2025

EXHIBIT 14

September 2014



Retail Parameters	2009	2010	2011	2012	2013
Water Supplied (MG/Y)	94,950	94,552	90,626	87,326	86,887
Authorized consumption (MG/Y)	66,181	63,875	63,424	64,660	64,829
Apparent losses (MG/Y)	8,271	8,502	7,036	3,538	3,629
Real losses (MG/Y)	20,498	22,144	20,165	19,128	18,428
Water losses (apparent plus real)	28,769	30,647	27,202	22,666	22,058
Non-revenue water (MG/Y)	29,007	30,971	27,388	24,333	23,165
Performance indicators	2009	2010	2011	2012	2013
Infrastructure Leakage Index (ILI)	10.8	9.2	8.13	9.85	9.21
Apparent Losses per service connection*	54.22	53.66	44.13	22.19	22.16
Real Losses per service per connection*	131.23	139.75	126.46	119.95	112.51
Real water loss percentage	21.6%	23.4%	22.3%	21.9%	21.2%
Non-revenue water percentage	30.6%	32.8%	30.2%	27.9%	26.7%

* gallons/connection/day

Long Term Goals

Infrastructure Leakage Index
 Real Losses (gallons/connection/day)
 Apparent Losses (gallons/connection/day)

Industry Average

3
 63
 10

MIAMI-DADE WATER AND SEWER DEPARTMENT WATER LOSS ACCOUNTING

ESTIMATED ACCOUNTED FOR WATER (in thousands of gallons)																			
FISCAL YEAR BY QUARTERS	1 WATER PRODUCED & PURCHASED	2 WATER SOLD	NON-REVENUE ACCOUNT WATER			ADJUSTMENTS											UNACCOUNTED FOR DISTRIBUTION LOSSES		
			3 TOTAL BEFORE ADJUSTMENTS (1 - 2)	4 PERCENT (3 / 1)	5 ANNUAL PERCENT (g)	6 (a) NON-CONSUME USAGE	7 (d) FIRE DEPT. CONTRACTS	8 FLUSHING		9 DISTRIBUTION			10 LEAK DETECTION	11 CLEANING GRAVITY MAINS	12 UNDER-REGISTRATION OF METERS (f)	13 (b) WASD FACILITIES NOT INC. IN RETAIL	14 TOTAL (SUM 5..13)	15 TOTAL AFTER ADJUSTMENT (3 - 14)	ANNUAL PERCENT (h)
								DONATIONS	FLUSHING	LEAK DETECTION	CLEANING GRAVITY MAINS	UNDER-REGISTRATION OF METERS (f)							
JAN-MAR 2011	28,008,303	21,396,692	6,611,611	23.61	24.52	(e)	N/A		2,831	45,713	2,833,074	1,450	962,851	2,148	3,848,057	2,763,544	8.29		
APR-JUN 2011	28,828,508	21,765,705	7,062,803	24.50	24.18	(e)	N/A		2,534	39,262	2,262,428	1,851	979,457	2,804	3,288,336	3,774,467	9.92		
JUL-SEP 2011	28,213,664	22,612,877	5,600,787	19.85	23.54	(e)	N/A		1,809	28,825	2,395,438	1,324	1,017,579	3,390	3,448,365	2,152,422	10.46		
OCT-DEC 2011	28,156,898	21,877,600	6,279,298	22.30	22.57	(e)	N/A		1,122	46,624	3,505,750	749	984,492	3,643	4,542,380	1,736,918	9.21		
JAN-MAR 2012	28,337,168	21,466,611	6,870,557	24.25	22.74	(e)	N/A		152,072	90,394	4,014,474	5,568	965,997	4,542	5,233,047	1,637,510	8.19		
APR-JUN 2012	27,778,842	21,056,908	6,721,934	24.20	22.84	(e)	N/A		0	52,460	6,973,473	1,222	947,561	4,783	7,979,499	(1,257,565)	3.80		
JUL-SEP 2012	28,261,986	21,463,740	6,798,246	24.05	23.70	(e)	N/A		42,171	353,157	4,146,948	2,027	965,868	5,221	5,515,392	1,282,854	3.02		
OCT- DEC 2012	27,919,866	21,056,642	6,863,224	24.58	24.27	(e)	N/A		0	80,147	3,823,648	661	947,549	5,089	4,857,095	2,006,129	3.27		
JAN - MAR 2013	28,574,514	21,193,297	7,381,217	25.83	24.67	(e)	N/A		0	36,047	3,842,315	1,358	953,698	5,419	4,838,837	2,542,380	4.06		
APR - JUN 2013	28,924,323	21,825,471	7,098,852	24.54	24.75	(e)	N/A		0	108,928	2,336,460	1,119	982,146	4,507	3,433,160	3,665,692	8.35		
JUL - SEP 2013	27,922,611	22,850,598	5,072,013	18.16	23.31	(e)	N/A		0	127,333	3,086,137	1,131	1,028,277	5,647	4,248,525	823,488	7.97		
OCT- DEC 2013	27,414,695	21,320,827	6,093,868	22.23	22.73	(e)	N/A		0	76,998	3,176,920	847	959,437	5,615	4,219,817	1,874,051	7.89		

Notes: October - December 2012 Figures are provisional.

(a) Miami-Dade, City of Coral Gables and City of Miami; includes Key Biscayne

(b) Lejeune Building, Westwood Lake and Distribution

(c) Revised on 8/26/99 to include Non - Consumer Usage Reported by Collections

(d) Starting in October 1998 most of the contract work is PSIP, therefore, not much water was used for flushing

(e) Average from fiscal year (1998 - 1999) to (2000 - 2001). Eliminated in FY 2010 - 2011.

(f) A 4.5 percent under-registration is used, as conservative figure, in lieu of a 6 percent under-registration which is the 4-year mid-point of the overall average water meter accuracy of 88 percent at the 8-year replacement interval was determined in the Brown and Caldwell, Water Meter Periodic Testing (PT) Program Evaluation, November 1995, because the study did not evaluate meters less than 8 years in service. This percentage will be revised as additional evaluations are performed.

(g) Sum 4Qtrs Col 3/Sum 4Qtrs Col 1

(h) Sum 4Qtrs Col 15/Sum 4Qtrs Col 1

N/A Not available
 Coral Gables Fire Department Only, City of Miami is unable to provide due to operating system & programing change.
 Miami-Dade Fire Rescue has not provided use.
 Values from this column are now found in Distribution Flushing.
 Values were lost while computer system was being updated.
 Eliminated in FY 2010 - 2011.

AWWA WLCC Free Water Audit Software: Reporting Worksheet				Back to	
Copyright © 2010, American Water Works Association. All Rights Reserved				WAS v4.2	
Water Audit Report for: Miami Dade WASD					
Reporting Year: 2013 1/2013 - 12/2013					
Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades					
All volumes to be entered as: MILLION GALLONS (US) PER YEAR					
WATER SUPPLIED					
<< Enter grading in column 'E'					
Volume from own sources:	?	8	109,674.040	Million gallons (US)/yr (MG/Yr)	
Master meter error adjustment (enter positive value):	?	5		under-registered	MG/Yr
Water imported:	?	8	179.743	MG/Yr	
Water exported:	?	8	22,966.189	MG/Yr	
WATER SUPPLIED:			86,887.594	MG/Yr	
AUTHORIZED CONSUMPTION					
Billed metered:	?	7	63,722.316	MG/Yr	
Billed unmetered:	?	n/a			
Unbilled metered:	?	8	21.190	MG/Yr	
Unbilled unmetered:	?		1,086.095	MG/Yr	
Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed					
AUTHORIZED CONSUMPTION:			64,829.601	MG/Yr	
WATER LOSSES (Water Supplied - Authorized Consumption)					
			22,057.993	MG/Yr	
Apparent Losses					
Unauthorized consumption:	?		217.219	MG/Yr	
Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed					
Customer metering inaccuracies:	?	8	1,500.615	MG/Yr	
Systematic data handling errors:	?	5	1,911.669	MG/Yr	
Apparent Losses:			3,629.503		
Real Losses (Current Annual Real Losses or CARL)					
Real Losses = Water Losses - Apparent Losses:			18,428.490	MG/Yr	
WATER LOSSES:			22,057.993	MG/Yr	
NON-REVENUE WATER					
NON-REVENUE WATER:			23,165.278	MG/Yr	
= Total Water Loss + Unbilled Metered + Unbilled Unmetered					
SYSTEM DATA					
Length of mains:	?	9	5,991.0	miles	
Number of active AND inactive service connections:	?	8	448,749		
Connection density:			75	conn./mile main	
Average length of customer service line:	?	10	0.0	ft	(pipe length between curbside and customer meter or property boundary)
Average operating pressure:	?	7	55.0	psi	
COST DATA					
Total annual cost of operating water system:	?	9	\$217,185,571	\$/Year	
Customer retail unit cost (applied to Apparent Losses):	?	8	\$2.82	\$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	?	8	\$317.08	\$/Million gallons	
PERFORMANCE INDICATORS					
Financial Indicators					
Non-revenue water as percent by volume of Water Supplied:			26.7%		
Non-revenue water as percent by cost of operating system:			7.6%		
Annual cost of Apparent Losses:			\$10,235,199		
Annual cost of Real Losses:			\$5,843,306		
Operational Efficiency Indicators					
Apparent Losses per service connection per day:			22.16	gallons/connection/day	
Real Losses per service connection per day:			112.51	gallons/connection/day	
Real Losses per length of main per day:			N/A		
Real Losses per service connection per day per psi pressure:			2.05	gallons/connection/day/psi	
Unavoidable Annual Real Losses (UARL):			2,001.95	million gallons/year	
From Above, Real Losses = Current Annual Real Losses (CARL):			18,428.49	million gallons/year	
Infrastructure Leakage Index (ILI) [CARL/UARL]:			9.21		

**Table 5-2: Schedule of Real Water Loss Reduction Activities
January 2007 through December 2026**

Activity	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
5.3 Recommendations for Real Loss Reduction										
5.3.1 System Design (Active Review)										
5.3.2 System Management										
5.3.2.3 Asset Maintenance or Replacement										
5.3.2.4 Reduce Maintenance Response Times										
5.3.2.5 Active Leakage Control and Sounding		Pilot								
5.3.2.7 Pressure Management										
5.3.2.8 Speed and Quality of Repairs										
Perform Venturi Comparative Tests-WTPs										
Perform Venturi Comparative Tests-wholesale customers										
Conduct wholesale customer unmetered connection survey										
Pilot Fixed Network AMR		Pilot								
Enhance GIS database										
ANNUAL WATER SAVINGS (Million Gallons)				650	1300	1950	2600	3250	3900	4550
ANNUAL VALUE OF WATER SAVINGS (Million \$)				\$0.297	\$0.595	\$0.892	\$1.189	\$1.487	\$1.784	\$2.081

Activity	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
5.3 Recommendations for Real Loss Reduction										
5.3.1 System Design (Active Review)										
5.3.2 System Management										
5.3.2.3 Asset Maintenance or Replacement										
5.3.2.4 Reduce Maintenance Response Times										
5.3.2.5 Active Leakage Control and Sounding										
5.3.2.7 Pressure Management										
5.3.2.8 Speed and Quality of Repairs										
Achieve target real loss of 5 billion gallons per year	X									
Achieve target Infrastructure Leakage Index (ILI) of 3.0	X									
ANNUAL WATER SAVINGS (Million Gallons)	5200	5200	5200	5200	5200	5200	5200	5200	5200	5200
ANNUAL VALUE OF WATER SAVINGS (Million \$)	\$2.378	\$2.378	\$2.378	\$2.378	\$2.378	\$2.378	\$2.378	\$2.378	\$2.378	\$2.378

Exhibit 17A

**Table 6-2: Schedule of Apparent Water Loss Reduction Activities
January 2007 through December 2026**

Activity	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
6.3 Recommendations for Apparent Water Loss Reduction										
6.3.1 Reducing Unmetered Supplies										
6.3.2 Improved Meter Accuracy										
6.3.3 Commercial Meter Types and Sizes										
6.3.3.2.1 Compound Meters Usage Compared to Same Size Turbine Meters						Pilot				
6.3.3.3 Looking Forward (setting Economic Meter Testing Goals)										
6.3.4 Improved Calibration of Wholesale Customer Meters										
6.3.5 Wholesale Customer Unmetered Connection Analysis										
Conduct field accuracy testing of commercial meters										
Pilot AMR to improve data handling and reduce labor cost		Pilot								
Characterize residential water demand pattern										
Determine economic optimum for residential meter replacement										
ANNUAL WATER SAVINGS (Million Gallons)				400	800	1200	1600	2000	2400	2800
ANNUAL VALUE OF WATER SAVINGS (Million \$)				0.788	1.576	2.364	3.152	3.94	4.728	5.516

Activity	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
6.3 Recommendations for Apparent Water Loss Reduction										
6.3.1 Reducing Unmetered Supplies										
6.3.2 Improved Meter Accuracy										
6.3.3 Commercial Meter Types and Sizes										
6.3.3.2.1 Compound Meters Usage Compared to Same Size Turbine Meters										
6.3.3.3 Looking Forward (setting Economic Meter Testing Goals)										
6.3.4 Improved Calibration of Wholesale Customer Meters										
6.3.5 Wholesale Customer Unmetered Connection Analysis										
Conduct field accuracy testing of commercial meters										
Reduce Apparent Losses to 10 billion gallons per year										X
ANNUAL WATER SAVINGS (Million Gallons)	3200	3600	4000	4400	4800	5200	5600	6000	6400	6800
ANNUAL VALUE OF WATER SAVINGS (Million \$)	6.304	7.092	7.88	8.668	9.456	10.244	11.032	11.82	12.608	13.396

Exhibit 17B

STANDARD WATER CONSERVATION PLAN

MDWASD website (<http://www.miamidade.gov/wasd/>) includes a Water Conservation page.

Public Education Program Elements

- The MDWASD purchases and publishes a variety of brochures and literature promoting water conservation, in both English and Spanish, that are available to members of the public upon request.
- Sponsors a telephone message center, the Pipeline customer newsletter, and posts water conservation messages on Miami-Dade Transit Agency buses.
- Does a variety of presentations to school-aged children to educate them about water conservation.

Outdoor Water Use Conservation Program Elements

1. Limitation of lawn and ornamental irrigation. Section 32-8.2 of the Code of Miami-Dade County was amended on April 7, 2009 limiting landscape irrigation to two days a week. The ordinance also includes permanent irrigation restrictions which prohibits landscape irrigation between 9:00 am and 5:00 pm. The ordinance also encourages efficient water use by not restricting hours for low volume irrigation methods or irrigation with treated wastewater effluent.
2. Use of Florida Friendly landscaping principles. The Miami-Dade County Landscape Ordinance, Chapter 18A, was last updated May 5, 2009. Within the Ordinance, use of Florida Friendly landscaping principles is promoted through the use of drought tolerant landscape species, grouping of plant material by water requirements, the use of irrigation systems that conserve the use of potable and non-potable water supplies and restrictions of the amount of lawn areas. The ordinance is in effect for all landscaping for new construction and includes more efficient water use guidelines.
3. Rain Sensor Device Ordinance - Miami-Dade County's Landscape Ordinance requires all irrigation systems equipped with automatic controls to have a rain sensor switch which turns off the system when more than 0.5 inches of rain have fallen.
4. Landscape Irrigation Audit Program – provides free evaluation of irrigation systems and rebates for irrigation retrofits.

Water Use Efficiency based rate structure

Since 1990, MDWASD placed into effect a tiered schedule of water rates to encourage conservation. Additional surcharges apply during formally declared Phase I, II, III or IV water restrictions.

Water Loss Reduction Program

MDWASD maintains an ongoing leak detection program in which crews, using acoustical detection equipment, which includes an aqua-scope with an electronic sound amplifier, working at night when extraneous noise is reduced, find leaks which are recorded and subsequently repaired. A leak Location

System or correlator which uses sonar technology to locate leaks has also been in use since December 1993.

A water loss accounting table for 2007 thru 2013 (Exhibit 16A), was compiled using the current water accounting methodology used by MDWASD for determining the distribution system water losses. Also included in Exhibit 16B is the International Water Association (IWA) / American Water Works Association (AWWA) water audit methodology which focuses on determining an Infrastructure Leakage Index (ILI). This water audit methodology categorizes water losses into real losses and apparent losses. Real losses include leaks, breaks, overflows and service connections and these losses impact withdrawals of groundwater. Apparent losses include unauthorized consumption, meter inaccuracies and data handling errors and have a monetary impact on the utility. In 2013, the real losses were 18 BGY (50 mgd) and the apparent losses had a monetary value of \$10 million. The County has committed to a Water Loss Reduction Plan (Exhibit 17) which will cost approximately \$2 million per year with the goal of reducing 2013 real losses by 45% and apparent losses by 55%. Exhibit 15 shows results of the program from 2009-2013. Special Condition 20 requires annual updates on the results of the program.

Indoor Water Conservation Program Elements

- A water conservation kit is available to customers upon request, which includes a washer to reduce water flow in showerheads, a clip that reduces the amount of water used by toilets, a low-flow faucet aerator, and dye-tracing tablets for detecting water leaks in toilets.
- Ultra-low volume (ULV) water closets, showerheads and other water conserving plumbing fixtures are mandatory on all new construction. (County Ordinance 91-15).
- Showerhead exchange if fixtures older than 1996.
- High-Efficiency Toilet Rebate

Table 3: Summary of total water savings (MG) across the Water Savings Horizon, and cumulative costs (\$ through 2026) by BMP type, with associated percentages.

BMP #	Description	Water Savings Across the 20-Year WSH (Cumulative Water Savings 2007-2026) (MG)	Percent of Total Savings, by BMP Type	Cumulative Costs by BMP Type (\$ to date)	Percent of Total Costs, by BMP Type
1	Landscape/Irrigation Eval. + Rain Sensor, No Rebate, SF	6,076	7.3%	\$1,773,200	7.0%
2	Landscape/Irrigation Eval. + Rain Sensor, No Rebate, NR	30,405	36.5%	\$1,121,400	4.4%
3	Common-area High Efficiency Clothes Washer Rebate, MF	184	0.2%	\$300,000	1.2%
4	High Efficiency Toilet + Showerhead & Aerators, SF-Elderly	4,906	5.9%	\$5,000,000	19.8%
5	High Efficiency Toilet + Showerhead & Aerators, County MF	4,298	5.2%	\$0	0.0%
6	High Efficiency Toilet Rebate, SF	159	0.2%	\$75,000	0.3%
7	Toilet Exchange Program, SF	3,278	3.9%	\$4,026,100	16.0%
8	Toilet Exchange Program, MF	2,845	3.4%	\$4,368,000	17.3%
9	Showerhead Exchange, SF	4,664	5.6%	\$56,096	0.2%
10	Showerhead Exchange, MF	4,555	5.5%	\$54,656	0.2%
11	Retrofit Kit, SF	1,599	1.9%	\$83,443	0.3%
12	Retrofit Kit, MF	1,562	1.9%	\$81,301	0.3%
13	ICI, Leak detection & Repair, County NR	2,228	2.7%	\$2,796,600	11.1%
14	ICI, Evaluate & Retrofit, County NR	1,035	1.2%	\$195,200	0.8%
15	ICI, Evaluate & Retrofit, Commercial NR	13,994	16.8%	\$5,112,000	20.3%
16	ICI, Hotel Program, NR	1,487	1.8%	\$160,001	0.6%
	Plan Total for WSH (2007-2026)	84,000	100%	\$25,203,000	100%

Exhibit 19A

Water Savings Projection Report Summary

Year	Water Savings (mgd)		Demand (mgd)			Population		Per Capita Demand (gpcd)		
	Planned	Reported	With Conservation			Forecasted	Actual	With Conservation		
			Without Conservation	Planned	Actual			Without Conservation	Planned	Actual
2007	1.09	1.212308	348.89	347.37865	315.8	2250944	2235179	155	154.33	142.92
2008	2.24	3.476908	345.78	342.732191	295.2	2230895	2213833	155	153.63	133.69
2009	3.53	4.902751	325.51	320.771322	305.8	2238700	2238700	145.4	143.28	136.61
2010	4.82	6.541536	329.12	322.429388	305.3	2263566	2263566*	145.4	142.44	134.90
2011	6.10	8.466445	332.74	324.247924	305.7	2288432	2288432*	145.4	141.69	133.59
2016	11.70		352.86	337.652284	--	2401027	--	145.4	139.14	--
2021	15.67		371.58	352.402364	--	2529835	--	145.4	137.89	--
2026	19.62		390.31	367.177444	--	2658643	--	145.4	136.78	--

*Pending Verification of Census Numbers

Table 1

Table 5: Countywide BMP Implementation Schedule, Costs, and Savings Projections

BMP	Category	Sector	Cost/measure ¹	Savings Rate (gallons per meter, per day)	2010					2011					2016							
					No. of Meas. In 2010	Cumulative No. of Meas.	2010 Cost	Cum. Costs (\$ to date)	New Water Savings (GPD)	2010 Cumulative Water Savings Rate (GPD)	No. of Meas. In 2011	Cumulative No. of Meas.	2011 Cost	Cum. Costs (\$ to date)	New Water Savings (GPD)	2011 Cumulative Water Savings Rate (GPD)	No. of Meas. In 2016	Cumulative No. of Meas.	2016 Cost	Cum. Costs (\$ to date)	New Water Savings (GPD)	2016 Cumulative Water Savings Rate (GPD)
Water-Efficient Landscape and Irrigation Evaluations and Rebates with Moisture Sensor Rebate	Landscape & Irrigation Evaluations plus Moisture Sensor Rebate (without Rebate)	SF	\$260	233	360	1,320	\$93,600	\$343,200	83,880	307,560	360	1,680	\$93,600	\$436,800	83,880	391,440	340	3,420	\$68,400	\$889,200	79,200	796,800
		NR County-Owned (25 irrigated acres)	\$8,010	35,000	20	80	\$160,200	\$640,800	700,000	2,800,000	20	100	\$160,200	\$801,000	700,000	3,500,000	0	140	\$0	\$1,121,400	0	4,900,000
High-Efficiency Clothes Washer Rebate	Common-area Washers ²	MF with Common-area Clothes Washers	\$300	48	50	200	\$15,000	\$60,000	2,400	9,600	50	250	\$15,000	\$75,000	2,400	12,000	50	500	\$15,000	\$150,000	2,400	24,000
High-Efficient Toilet (HET) Retrofit/Rebate	Retrofit (includes showerhead and sensors) ³	SF - Elderly County-Owned MF Housing ⁴	\$250	64	1,000	4,000	\$250,000	\$1,000,000	64,000	256,000	1,000	5,000	\$250,000	\$1,250,000	64,000	320,000	1,000	10,000	\$250,000	\$2,500,000	64,000	640,000
		Rebate (toilet only) ⁵	\$0	64	2,500	5,000	\$0	\$0	160,000	384,000	2,500	8,500	\$0	\$0	160,000	544,000	0	11,000	\$0	\$0	0	704,000
		MF	\$100	29	0	750	\$0	\$75,000	0	21,750	0	750	\$0	\$75,000	0	21,750	0	750	\$0	\$75,000	0	21,750
		MF	\$130	29	1,630	4,830	\$211,900	\$635,700	47,270	141,810	1,630	6,520	\$211,900	\$847,600	47,270	188,080	1,630	14,670	\$211,900	\$1,507,100	47,270	425,430
Showerhead Exchange	No Categories	SF	\$1.50	35	1,770	6,740	\$2,632	\$10,784	61,950	235,900	1,770	8,510	\$2,632	\$13,616	61,950	237,850	1,770	17,360	\$2,632	\$27,776	61,950	607,600
		MF	\$1.50	35	1,720	5,640	\$2,752	\$10,624	60,200	232,400	1,720	8,360	\$2,752	\$13,376	60,200	230,600	1,720	16,960	\$2,752	\$27,136	60,200	583,600
Retrofit Kit Give Away	No Categories	SF	\$2.38	12	1,770	6,740	\$4,213	\$16,041	21,240	80,880	1,770	8,510	\$4,213	\$20,254	21,240	102,120	1,770	17,360	\$4,213	\$41,317	21,240	208,320
		MF	\$2.38	12	1,720	5,640	\$4,094	\$15,803	20,640	79,680	1,720	8,360	\$4,094	\$19,897	20,640	100,320	1,720	16,960	\$4,094	\$40,305	20,640	203,520
Industrial, Commercial and Institutional Water Use Evaluation/Implementation	Leak Detection and Repair of County-owned Facilities	NR	\$4,740	1,000	30	110	\$142,200	\$521,400	30,000	110,000	30	140	\$142,200	\$663,600	30,000	140,000	30	290	\$142,200	\$1,374,600	30,000	290,000
		NR	\$1,600	1,500	10	52	\$16,000	\$83,200	15,000	78,000	10	62	\$16,000	\$99,200	15,000	93,000	10	112	\$16,000	\$179,200	15,000	168,000
		NR	\$1,600	1,500	0	0	\$0	\$0	0	0	0	0	\$0	\$0	0	0	213	1,005	\$340,800	\$1,704,000	319,500	1,587,500
	Hotel Program ⁶	NR	\$667	1,617	46	46	\$6,000	\$32,000	19,404	77,616	12	60	\$6,000	\$40,000	19,404	97,020	12	120	\$6,000	\$80,000	19,404	194,040
Plan Total							\$911,000	\$3,445,000	1,288,000	4,816,000			\$911,000	\$4,356,000	1,288,000	6,102,000			\$1,376,000	\$11,874,000	808,000	11,730,000
Sub-total for SF							\$562,000	\$2,681,000	278,000	1,044,000			\$563,000	\$2,644,000	278,000	1,323,000			\$558,000	\$5,441,000	274,000	2,709,200
Sub-total for MF							\$22,000	\$87,000	244,000	706,000			\$22,000	\$109,000	244,000	848,000			\$214,000	\$1,674,000	148,000	1,850,200
Sub-total for NR							\$327,000	\$1,278,000	766,000	3,066,000			\$327,000	\$1,604,000	766,000	3,831,000			\$598,000	\$4,469,000	366,000	7,150,000

WSH = Water Savings Horizon
 GPD = gallons per day
 TG = thousand gallons

Table 5: Countywide BMP Implementation Schedule, Costs, and Savings Projections

BMP	Category	Sector	Cost/ measure ^a	Savings Rate (gallons per meas. per day)	2021						2025						Water Savings Across the 20-Year Horizon (Cumulative Water Savings 2007-2026) (MG)	Total # of BMPs (Count of BMPs 2007-2026)
					No. of Meas. In 2021	Cumulative No. of Meas.	2021 Cost	Cum. Costs (\$ to date)	New Water Savings (GPD)	2021 Cumula- tive Water Savings Rate (GPD)	No. of Meas. In 2025	Cumulative No. of Meas.	2025 Cost	Cum. Costs (\$ to date)	New Water Savings (GPD)	2025 Cumula- tive Water Savings Rate (GPD)		
Water-Efficient Landscape and Irrigation Evaluations and Rebates with Moisture Sensor Retrofit	Landscape & Irrigation Evaluations plus Moisture Sensor Retrofit (without Rebate)	SF	\$260	203	340	5,120	\$88,400	\$1,331,200	79,220	1,192,960	340	6,820	\$88,400	\$1,773,200	79,220	1,569,060	6,076	6,820
		NR County- Owned (-25 irrigated acres)	\$8,010	35,000	0	140	\$0	\$1,121,400	0	4,900,000	0	140	\$0	\$1,121,400	0	4,900,000	30,405	140
High-Efficiency Clothes Washers Rebate	Common-area Washers ^b	MF with Common-area Clothes Washers	\$300	48	50	750	\$15,000	\$225,000	2,400	36,000	50	1,000	\$15,000	\$300,000	2,400	48,000	184	1,000
High Efficiency Toilet (HET) Rebate/Rebate	Retrofit (includes showershead and aerators) ^c Rebate (toilet only) ^d Toilet Exchange Program Toilet Exchange Program	SF - Elderly County- Owned MF Housing ^e	\$250	64	1,000	15,000	\$250,000	\$3,750,000	64,000	960,000	1,000	20,000	\$250,000	\$5,000,000	64,000	1,280,000	4,906	20,000
		SF	\$0	64	0	11,000	\$0	\$0	0	704,000	0	11,000	\$0	\$0	0	704,000	4,298	11,000
		SF	\$100	20	0	750	\$0	\$75,000	0	21,750	0	750	\$0	\$75,000	0	21,750	159	750
		MF	\$130	28	2,240	22,400	\$291,200	\$3,912,000	64,960	649,600	2,240	33,600	\$291,200	\$4,369,000	64,960	974,400	2,845	33,600
Showershead Exchanges	No Categories	SF	\$1.60	35	1,770	26,210	\$2,832	\$41,936	61,950	917,250	1,770	35,060	\$2,832	\$58,096	61,950	1,227,100	4,054	35,060
		MF	\$1.60	35	1,720	25,560	\$2,752	\$40,856	60,200	894,600	1,720	34,160	\$2,752	\$54,856	60,200	1,195,600	4,595	34,160
Retrofit HQ Give Away	No Categories	SF	\$2.38	12	1,770	26,210	\$4,213	\$62,390	21,240	314,520	1,770	35,060	\$4,213	\$83,443	21,240	420,720	1,598	35,060
		MF	\$2.38	12	1,720	25,560	\$4,094	\$60,830	20,640	306,720	1,720	34,160	\$4,094	\$81,301	20,640	409,920	1,582	34,160
Leak Detection and Repair of County-owned Facilities	Leak Detection and Repair of County-owned Facilities	NR	\$4,740	1,000	30	440	\$142,200	\$2,065,600	30,000	440,000	30	560	\$142,200	\$2,796,800	30,000	590,000	2,228	290
		NR	\$1,600	1,500	0	122	\$0	\$195,200	0	183,000	0	122	\$0	\$195,200	0	183,000	1,035	122
		NR	\$1,600	1,500	213	2,130	\$340,800	\$3,408,000	319,500	3,195,000	213	3,195	\$340,800	\$5,112,000	319,500	4,792,500	13,994	3,195
		NR	\$667	1,617	12	180	\$8,000	\$120,001	19,404	291,060	12	240	\$8,000	\$160,001	19,404	388,060	1,457	240
Plan Total					For 2021	\$1,362,000	\$18,397,000	781,000	16,849,000	For 2025		\$1,362,000	\$25,703,600	781,000	19,623,000	84,000	346,887	
Subtotal for SF						\$658,000	\$8,328,600	274,000	4,969,000			\$658,000	\$11,014,000	274,000	5,637,000	21,608	132,640	
Subtotal for MF						\$314,800	\$3,239,000	149,000	2,891,000			\$314,800	\$4,804,000	149,000	3,332,000	14,600	113,920	
Subtotal for NR						\$492,000	\$6,821,000	358,000	9,010,000			\$492,000	\$9,886,000	358,000	10,654,000	48,792	4,287	

MSY = Water Savings Horizon
GPD = gallons per day
TG = thousand gallons

**Miami-Dade Water and Sewer Department (MDWASD)
20-Year Water Use Efficiency Plan
Water Use Efficiency - Best Management Practices (BMP) Planning Spreadsheet**

Prepared by: Malcolm Pirnie, Inc.
Contact: Brian Klett, (813) 242-7252
Last Modified: 4/02/2007

Purpose:

This spreadsheet is intended for water use efficiency BMP planning purposes only.
The spreadsheet assists in calculating estimated water savings rates and costs for a specified set of BMPs.
The spreadsheet includes the MDWASD Retail area as well as the 15 wholesale water customers of MDWASD.
Allocation of BMPs among MDWASD Retail Area and 15 wholesalers is calculated in a separate spreadsheet.

Spreadsheet Notes:

* Throughout Plan, costs do not include County staff labor unless otherwise noted.

¹ Cost includes labor to perform evaluation, install a moisture sensor, and provide a report. Assumes 1,400 gpd/acre & 1/6 acre per SF home.

Cost and savings for NR Park facilities assumes an average of 25 irrigated acres per facility (using potable water).

² Savings rate for common area washer is in gallons per day per washer.

³ Cost and savings include 1 toilet, 1 showerhead, and 2 aerators (1 for the bathroom; one for the kitchen), and installation costs.

⁴ Cost includes a \$100 rebate to the customer.

⁵ Cost is only for intradepartment assistance from WASD to other County departments for retrofit. Assistance may be in the form of a rebate or a credit on water bill.

⁵ Savings shown are for a hotel with 50 to 100 rooms (SWFWMD Water CHAMP)

⁷ Costs include equipment and outsourcing, unless otherwise noted costs do not include County staff time.

⁸ Miami-Dade County Housing Agency is implementing this program through 'performance contracting', with the initial program funded by HUD.

Summary of 20-Year Water Use Efficiency Plan BMP Implementation 2007-2026

TABLE 1-A: Summary of Miami-Dade County 20-Year Water Use Efficiency Plan (2007-2026), including MDWASD retail & wholesale service areas.

Year	2007	2008	2009	2010	2011	2016	2021	2026
Cost (\$/Yr.)	\$753,000	\$871,000	\$911,000	\$911,000	\$911,000	\$1,378,000	\$1,362,000	\$1,362,000
Cumulative Cost (\$ to date)	\$753,000	\$1,623,000	\$2,534,000	\$3,445,000	\$4,356,000	\$11,574,000	\$18,397,000	\$25,203,000
Additional Water Savings (GPD)	1,086,000	1,158,000	1,286,000	1,286,000	1,286,000	806,000	791,000	791,000
Cumulative Water Savings Rate (GPD)	1,086,000	2,244,000	3,530,000	4,816,000	6,102,000	11,700,000	15,669,000	19,623,000

TABLE 1-B: Annual cost of Water Use Efficiency Plan by sector (Single Family, Multi-Family, Non-residential) (\$/Yr.).

Year	2007	2008	2009	2010	2011	2016	2021	2026
Sub-total for SF	\$410,000	\$547,000	\$563,000	\$563,000	\$563,000	\$558,000	\$558,000	\$558,000
Sub-total for MF	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$314,000	\$314,000	\$314,000
Sub-total for NR	\$322,000	\$303,000	\$327,000	\$327,000	\$327,000	\$508,000	\$492,000	\$492,000
TOTALS	\$753,000	\$871,000	\$911,000	\$911,000	\$911,000	\$1,378,000	\$1,362,000	\$1,362,000

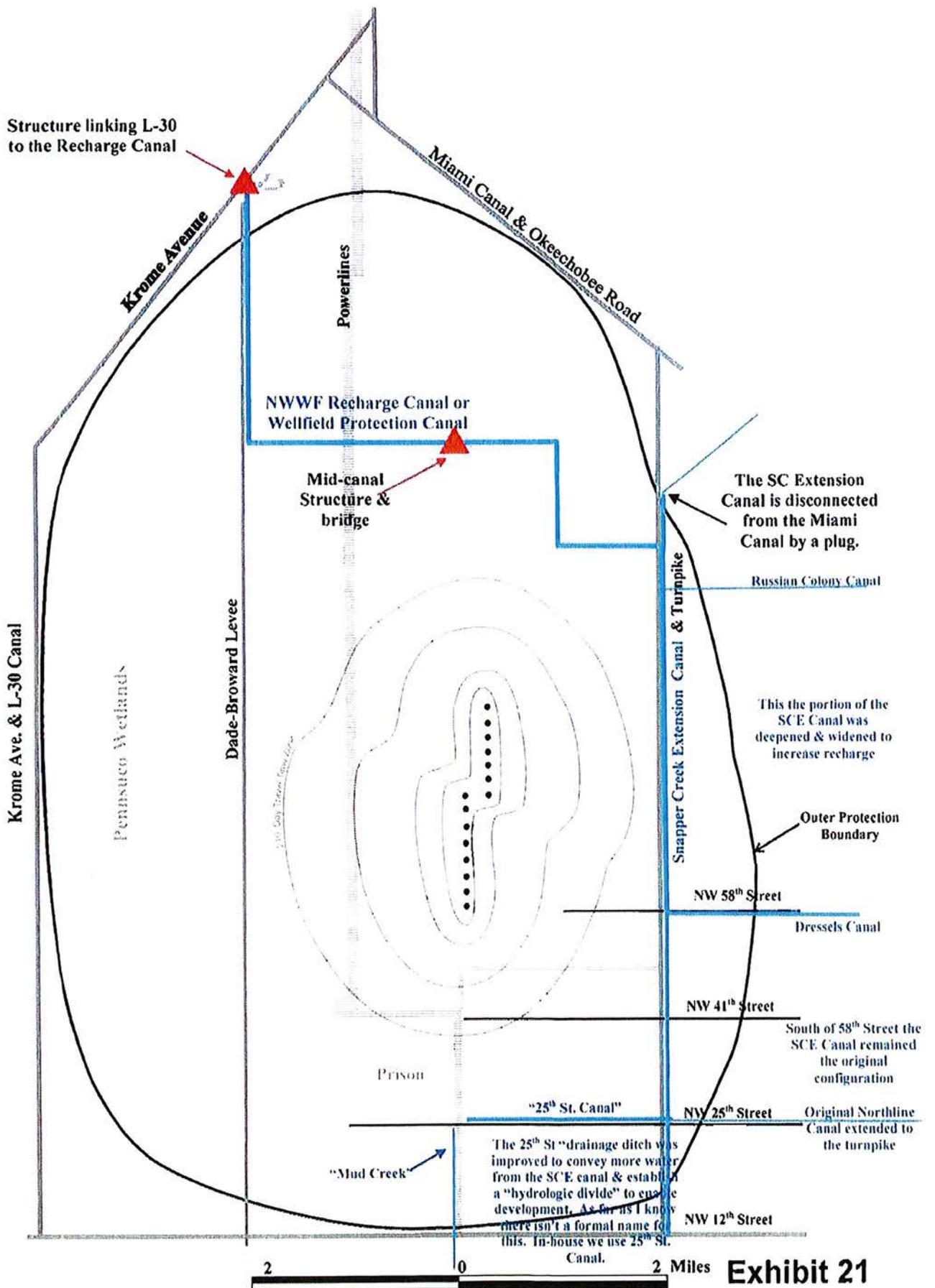
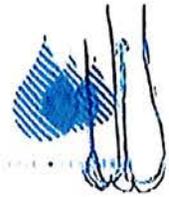


Exhibit 21



South Florida Water Management District
11000 South US Highway 1, Suite 100, West Palm Beach, FL 33411-1100
Tel: (561) 869-1300 Fax: (561) 869-1300

at
M

August 14, 2000

CERTIFIED: 7099 3400 0000 5273 9927
RETURN RECEIPT

Mr. Jeff Rosenfeld
Senior Supervising Hydrogeologist
Regulation Department / Water Use Division
South Florida Water Management District
PO Box 24680
West Palm Beach, FL 33416-4680

RECEIVED
AUG 17 2000
WATER USE DIVISION

RE: Miami-Dade Water and Sewer Department
Hialeah / Preston / Miami Springs / Northwest Wellfields
Water Use Permit No. 13-00037-W

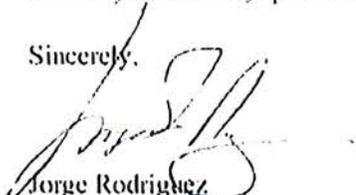
Dear Mr. Rosenfeld:

In accordance with limiting condition no.32 of the referenced permit, the following is a description of the schedule for operation of the surface water control structure located on the Northwest wellfield (NWWF) protection canal for District approval.

As per the control authority, Department of Environmental Resources Management (DERM), structures located in the NWWF protection canal are operated according to the specific circumstances. These structures are not automated and therefore would be manually opened or closed at specific canal elevations. Normal operation for the new water control structure is to be closed to induce flow to the west and south. The control structure would remain closed if groundwater stages are high and there is no need for additional water from the I-30 canal. It would be opened if the opposite is the case. The structure would also be closed in anticipation of a hurricane event to prevent additional flow from entering the secondary system canals.

Should you have any questions, please call Ms. Bertha M. Goldenberg, P.E. at (305) 669-5711.

Sincerely,


Jorge Rodriguez
Assistant Director

BMG/dje

c: Harvey Kottke, DERM Isaac Sznol, DERM

Exhibit 22

MDWASD Biscayne Aquifer Final Modeling Scenarios

SCENARIO	DESCRIPTION OF SCENARIO	WTP SUB-AREA / WELLFIELD PUMPAGE																				MDWASD TOTAL
		Hialeah-Preston					Alexander Orr					South Dade										
		H	JP	MS	NW	TOTAL	AO	SC	SW	W	TOTAL	ELT	LC	NJ	EVLC	NWTN	CP	FP	RHP	RPP	TOTAL	
G	Base Condition	3.1	37.2	29.7	88.7	158.7	62	20.4	83.8	15	181.2	1.3	2.9	0.1	0.7	2.1	0	0	0	0	7.1	347
H	Alternative South Dade	3.1	37.2	29.7	88.7	158.7	62	20.4	88.8	15	186.2	0	0	0	0.7	2.1	0	3	2	0	7.8	352.7
I	Recharge Credit Evaluation	3.1	37.2	29.7	88.7	158.7	62	20.4	88.8	15	186.2	0	0	0	2.2	2.6	3	3	17	0	27.8	372.7
J	Recharge Credit Evaluation	3.1	37.2	29.7	88.7	158.7	62	20.4	88.8	15	186.2	0	0	0	2.2	2.6	3	3	17	0	27.8	372.7
K	Wellfield Ops Plan 2027	3.1	37.2	29.7	88.7	158.7	62	20.4	125.8	15	223.2	0	0	0	2.2	2.6	3	3	17	0	27.8	409.7
L	AO/SWWF Reallocation 2012	3.1	37.2	29.7	88.7	158.7	40	20.4	110	15	185.4	1.3	2.9	0.1	0.7	2.1	0	0	0	0	7.1	351.2
M	SMH Biscayne base 2012	3.1	37.2	29.7	88.7	158.7	62	20.4	83.8	15	181.2	0	0	0	2.2	2.6	0	0	3	0	7.8	347.7

Abbreviations = Wellfield

H = Hialeah
 JP = John E. Preston
 MS = Miami Springs
 NW = Northwest
 AO = Alexander Orr
 SC = Snapper Creek
 SW = Southwest
 W = West
 ELT = Elevated Tank
 EVLC = Everglades Labor Camp
 LC = Leisure City
 NJ = Naranja
 NWTN = Newton
 CP = Carribean Park
 FP = Former Plant
 RHP = Roberta Hunter Park
 RPP = Rock Pit Park
 SMH = South Miami Heights
 CNMB = City of North Miami Beach

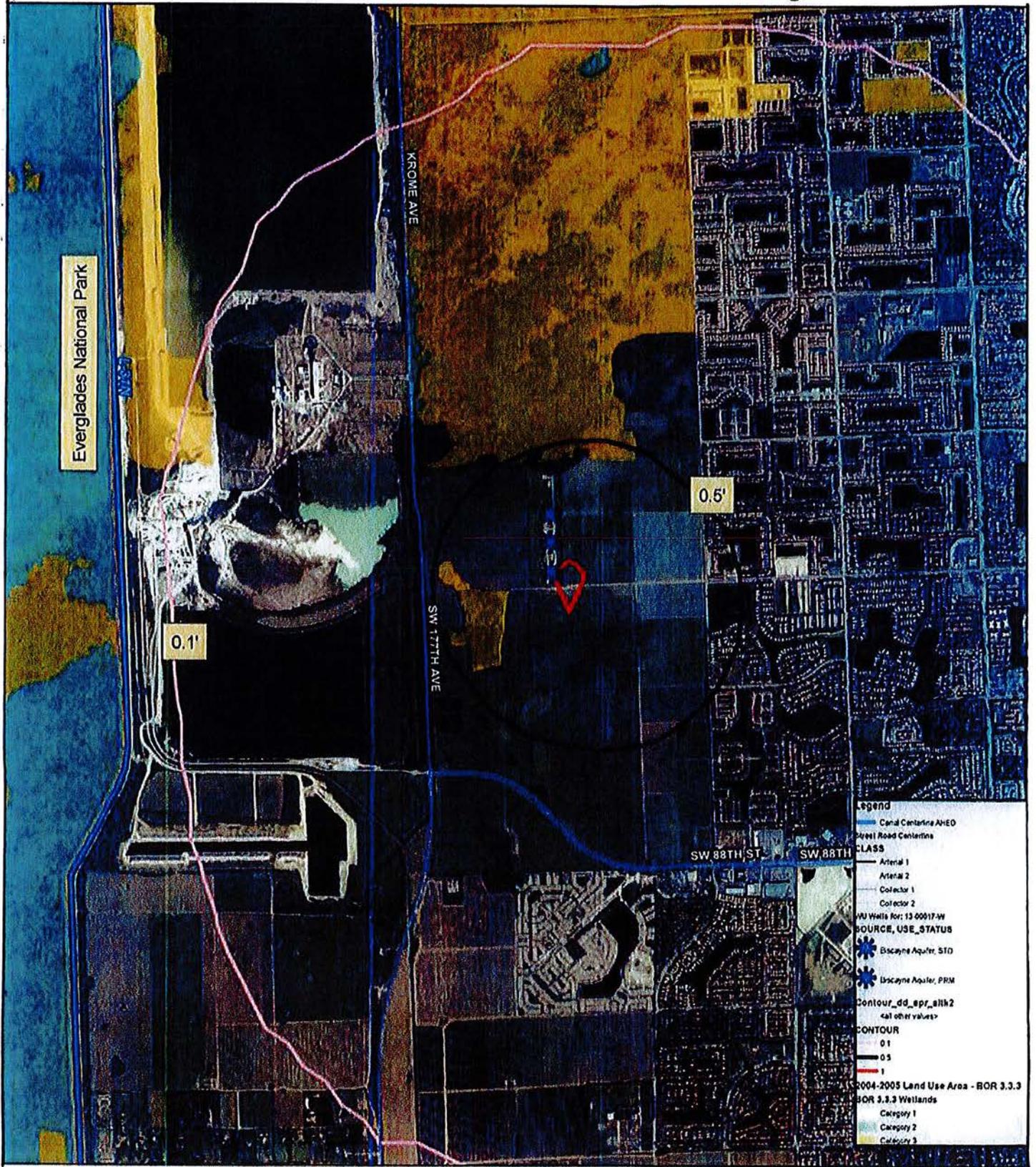
Purpose of Each Scenario

G - Establish Base Condition Water Use (NWWF at 88.7 because of CNMB shift)
 H - Shifting 4.3 MGD from South Dade (ELT, LC, NJ) to SMH (FP & RHP)
 Base condition prior to recharge at SMH and increasing from 4.3 to 5 MGD to account for new treatment at SMH WTP
 I - Base Condition (South Dade 5 mgd at SMH with increases at NWTN and ELC) plus pumps ON at SMH at 23 MGD prior to SMH recharge.
 Increase SW by 5.0 MGD
 J - Pumps on at SMH (23 MGD) to determine benefits of 23 MGD Phase 1 SMH recharge offset. Increase SW by 5.0 MGD.
 K - Final 20 year permit conditions and determining how much regional impact does 37 MGD increased pumpage at Alex Orr subarea cause, to determine offset by Phases 2 and 3 canal recharge.
 L - reallocation of 22 mgd from AO wellfield to SWWF, and an additional 3.6 mgd at SWWF with no modeled impact to regional system
 M - SMH at 3 mgd (Turning off 4.3 mgd at ET, LC and NJ results in a 2.5 mgd reduction in impact on regional canals; transferred to SMH wellfield. Increasing from 2.5 mgd to 3.0 mgd for the reduced treatment efficiency of the proposed membrane treatment system)

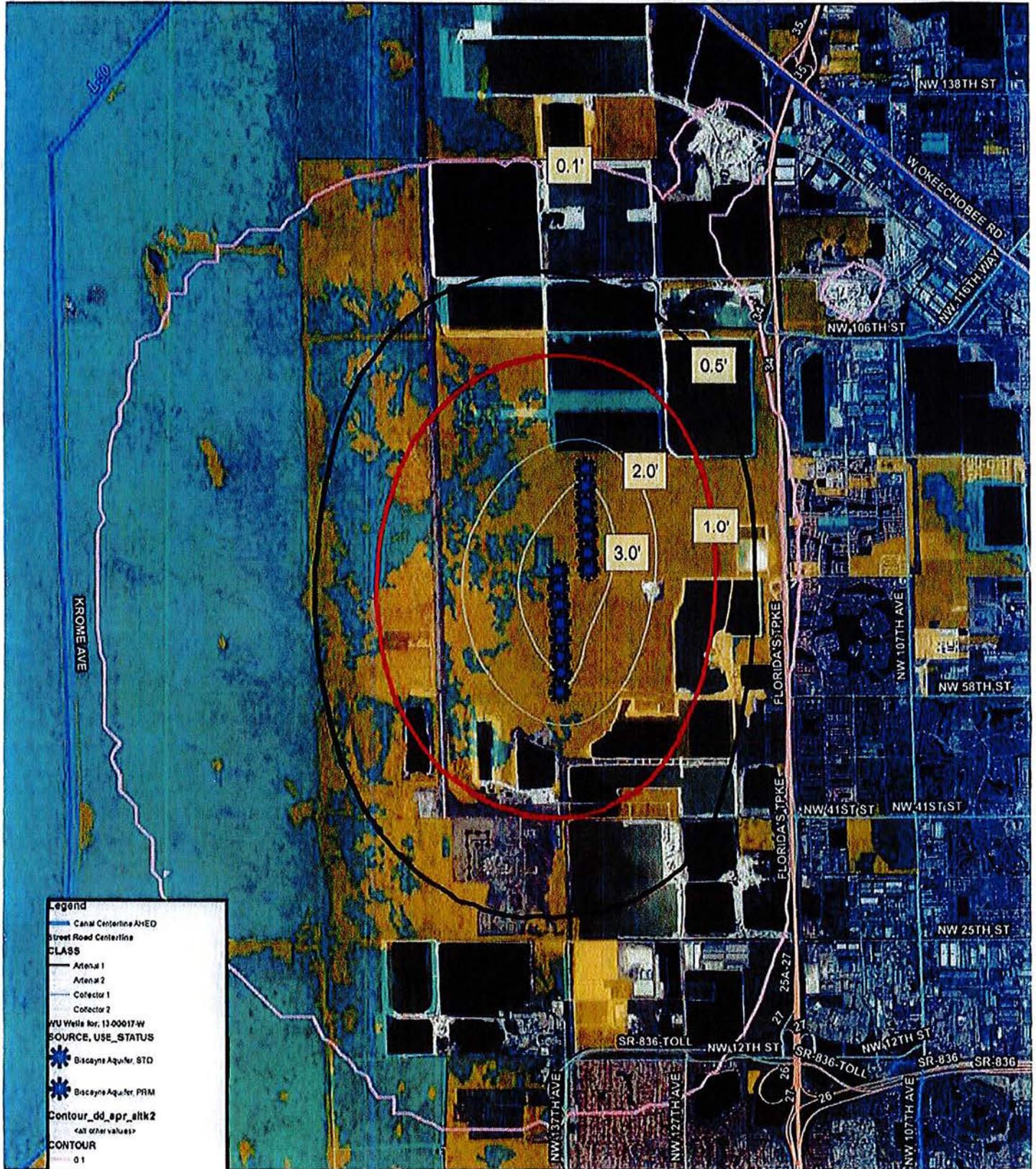
Notes

Scenario G Base Condition adjustments lowered NW due to CNMB
 Above pumpages are annual average values.
 The simulated withdrawal for each month will vary based on historic ratios of individual months to the long-term average month withdrawal
 Each scenario listed above (G through K) consisted of two runs: MDWASD-alone and cumulative (MDWASD plus adjacent permitted users.
 An additional scenario was run that simulated no public water supply (PWS) withdrawal (used as base case for drawdown evaluation).
 MDWASD pumpage rates were as listed in the above table for each scenario (G through M).
 Drawdowns were computed as the difference in simulated heads between the no-PWS pumpage scenario and the cumulative for each scenario.
 Output consists of maps of head and drawdown, hydrographs, water budgets and vector plots.

West Wellfield Modeled Drawdown - 15 mgd



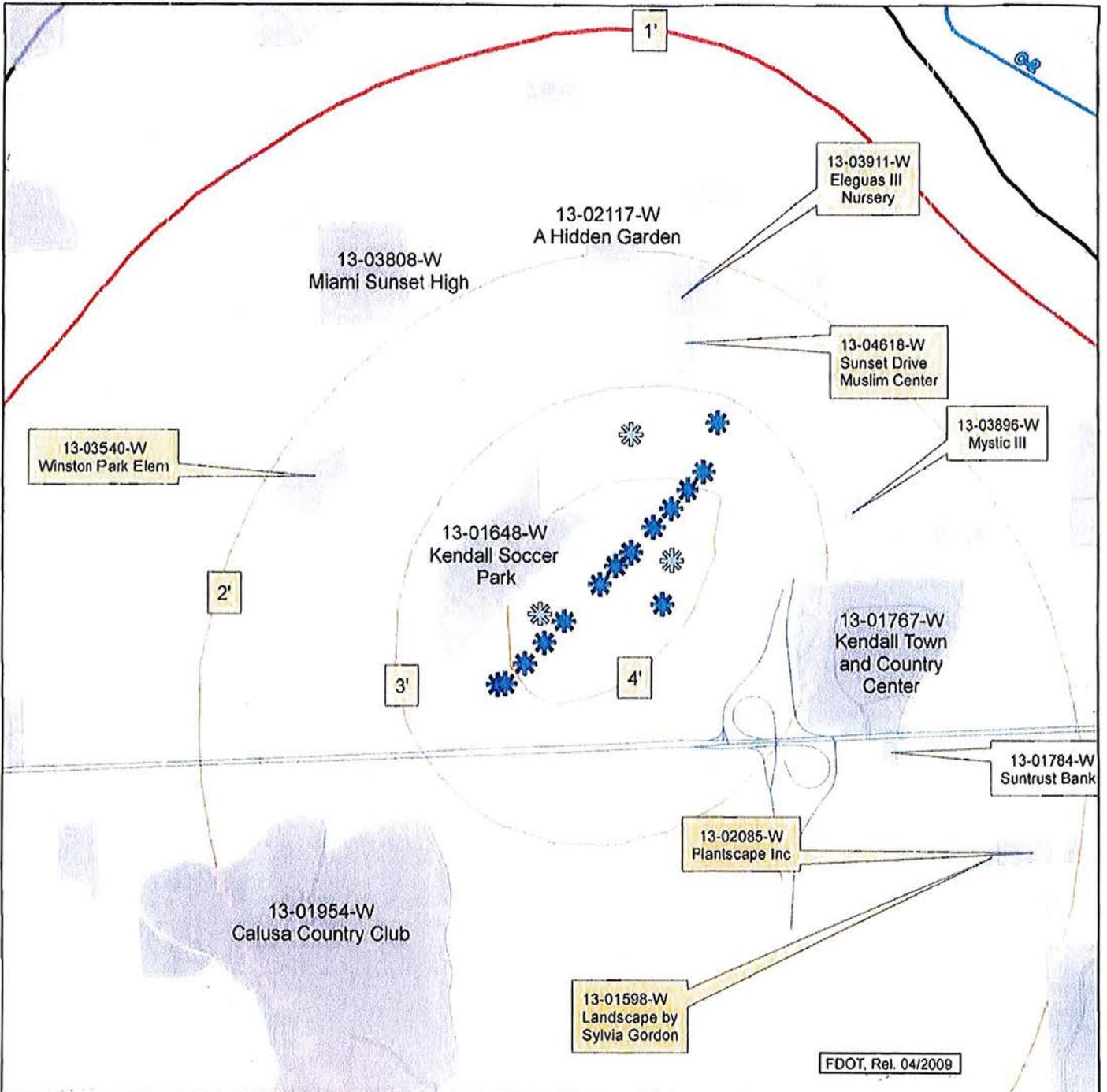
Northwest Wellfield Modeled Drawdown - 88.7 mgd



Legend

- Canal Centerline A/E/D
- Street Road Centerline
- CLASS**
- Arterial 1
- Arterial 2
- Collector 1
- Collector 2
- WU Wells for 13-00017-W
- SOURCE, USE_STATUS**
- Biscayne Aquifer, GTD
- Biscayne Aquifer, PRIM
- Contour_dd apr_alk2**
(all other values)
- CONTOUR**
- 0.1
- 0.5
- 1
- 2004-2006 Land Use Area - BOR 3.3.3
- BOR 3.3.3 Wetlands
- Category 1
- Category 2
- Category 3

EXHIBIT 24B



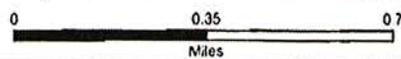
FDOT, Rel. 04/2009



Legend

- Water Use - Primary
- WU Wells for: 13-00017-W
- SOURCE, USE_STATUS
- Biscayne Aquifer, STD
- Biscayne Aquifer, PRM
- Contour_dd_apr_atk2
- <all other values>
- CONTOUR
- 0.1
- 0.5
- 1

Project Name: MIAMI-DADE CONSOLIDATED P W S



MIAMI-DADE COUNTY, FLORIDA



Map Date: 10/22/2010

Application Number: 091228-14

Permit Number: 13-00017-W

Exhibit : 25A

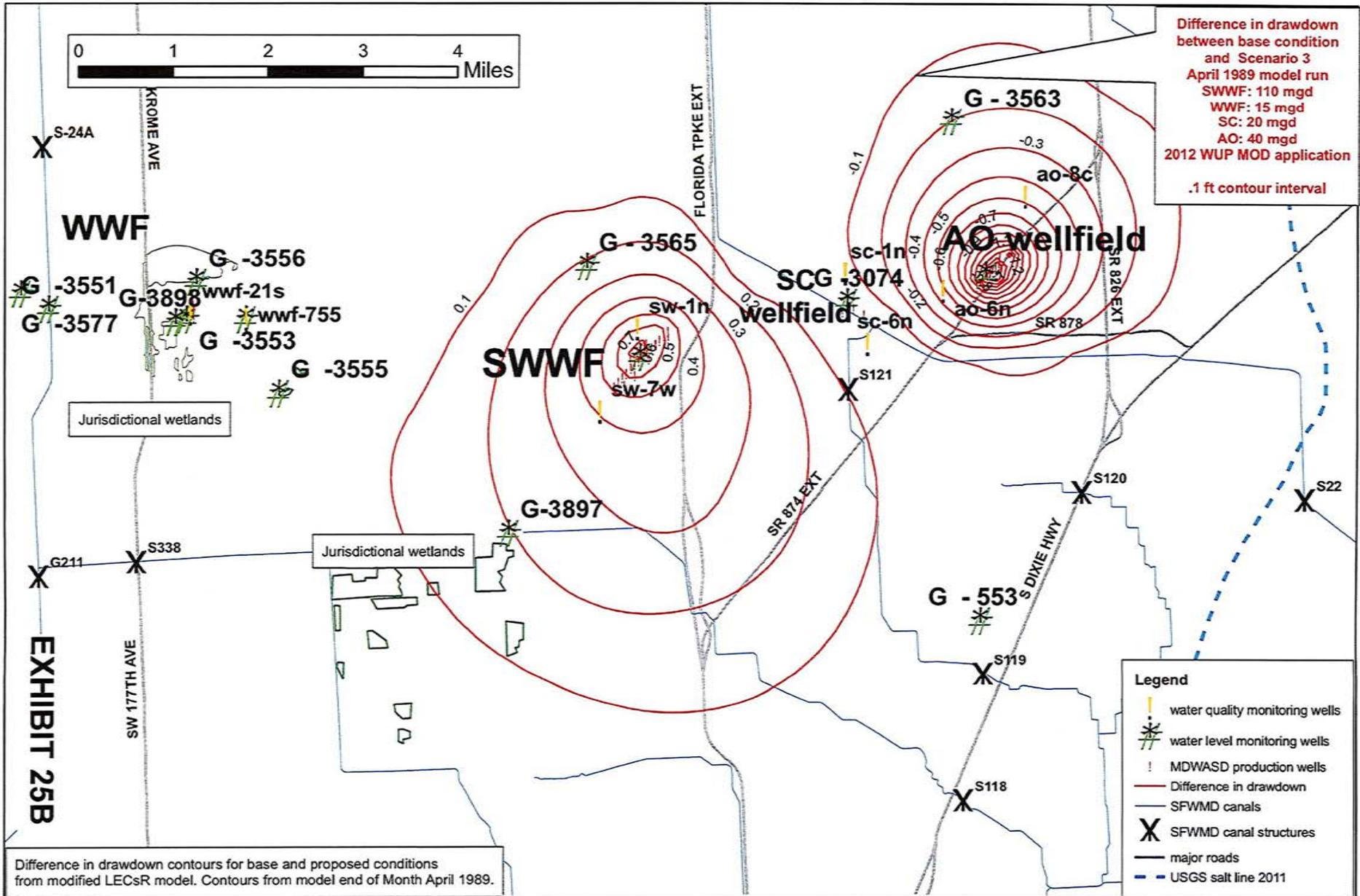


Figure 8c. Southwest, Snapper Creek and Alex Orr Wellfield Groundwater Level and Water Quality Monitoring Drawdown difference

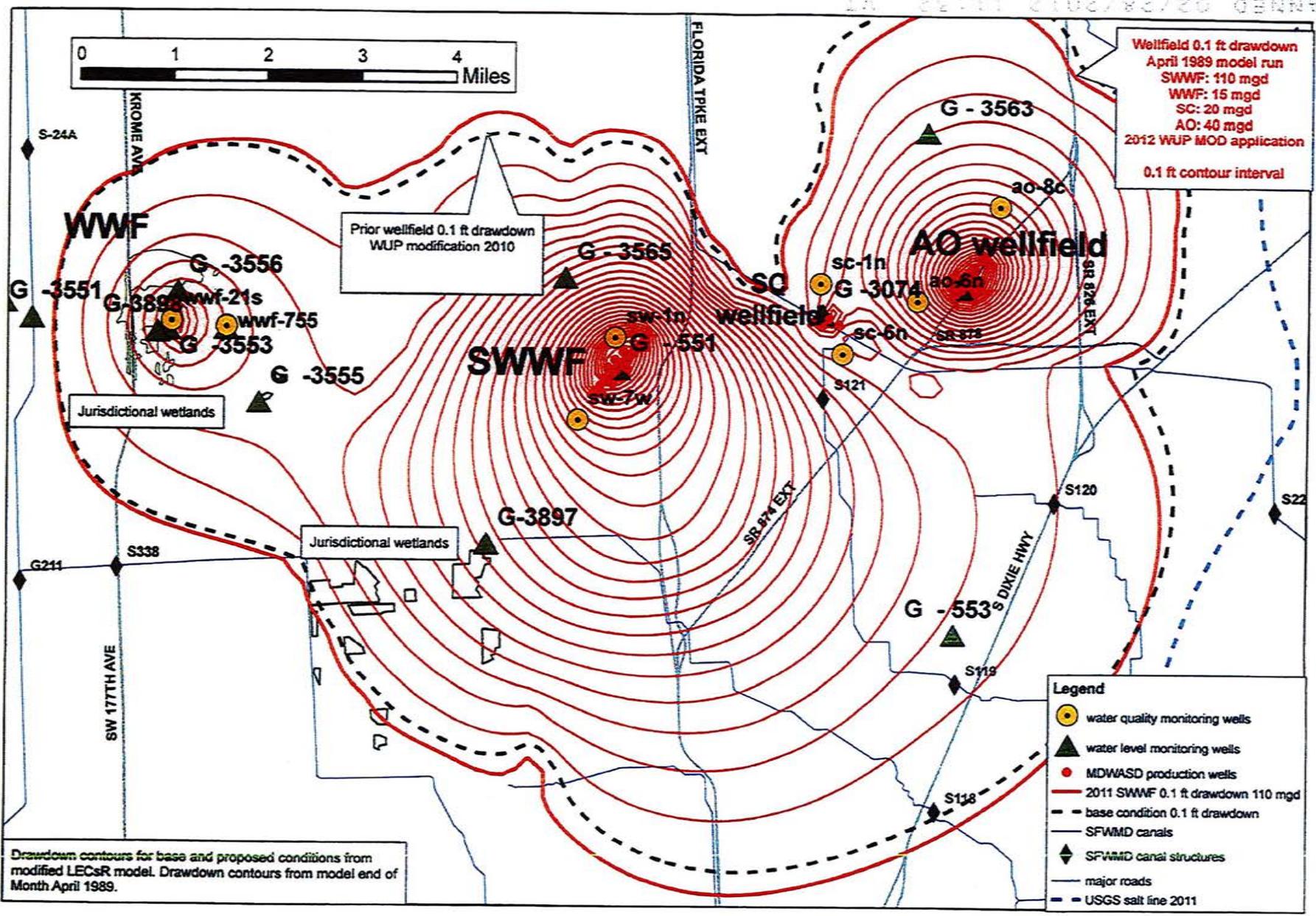


EXHIBIT 25C



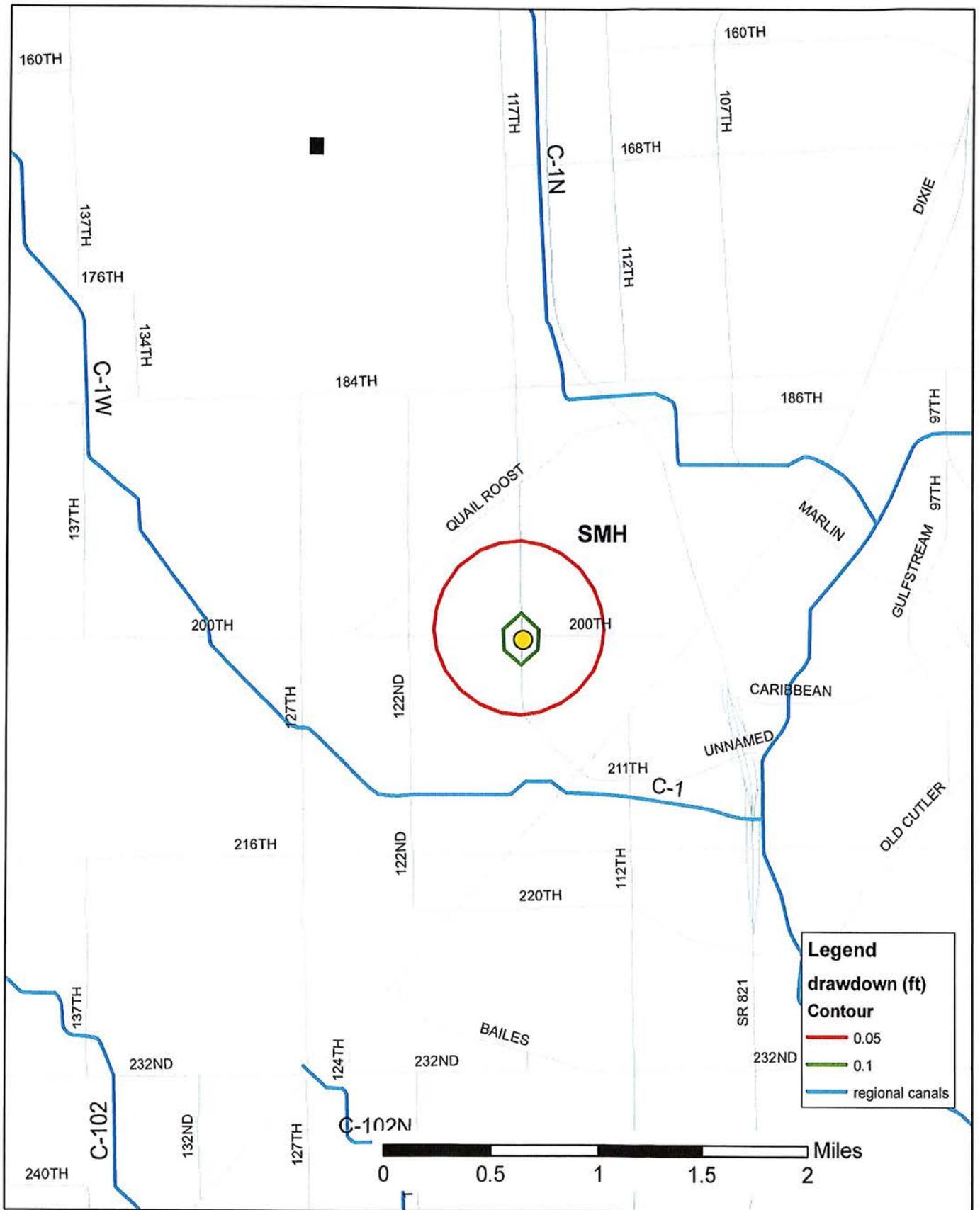
Miami-Dade County Water and Sewer Department
3071 SW 38 Ave
Miami FL 33146



110511-6-

Figure 8a. Southwest, Snapper Creek and Alex Orr Wellfield drawdown and Water Quality Monitoring

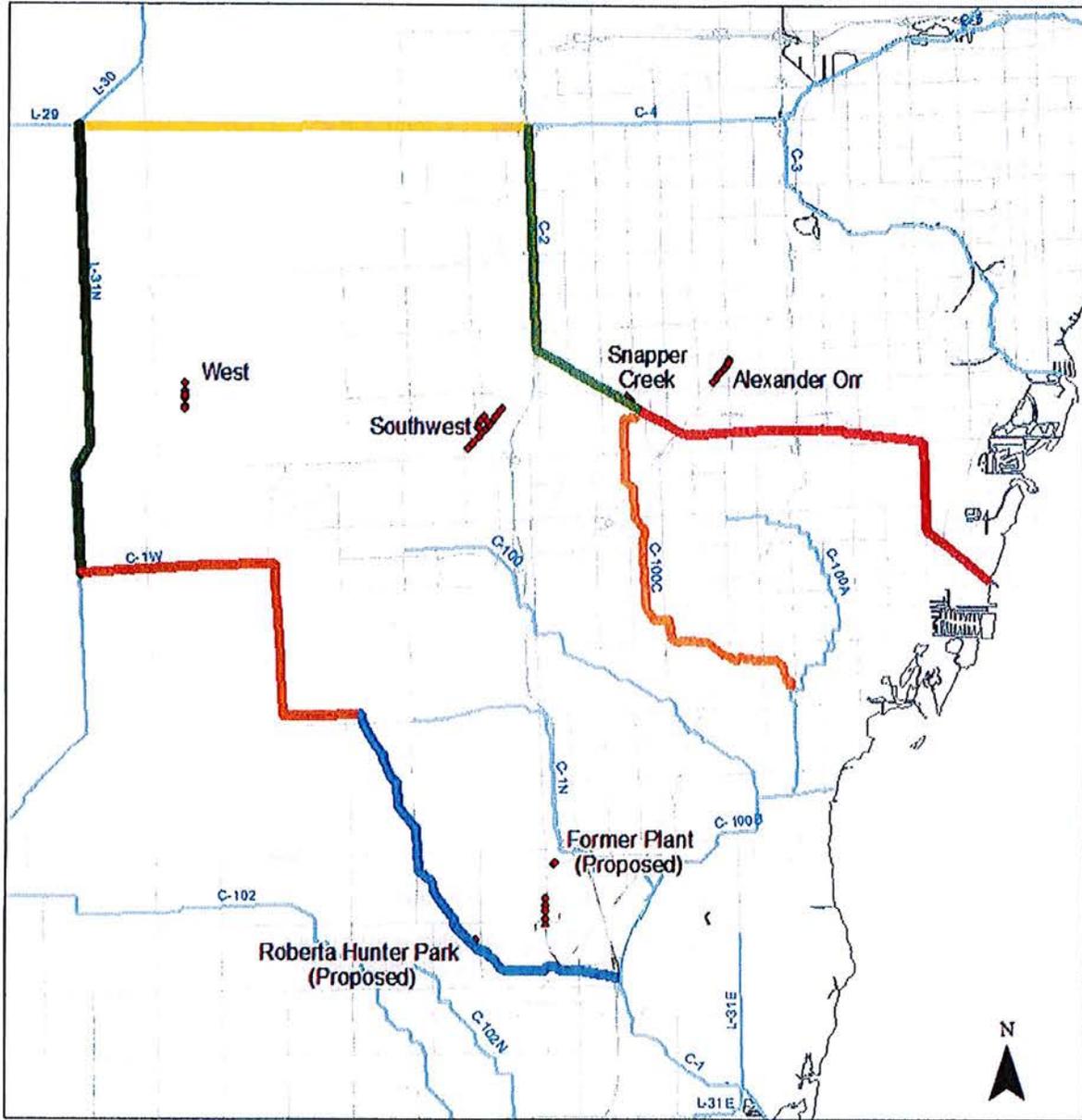
updated 2/22/12



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**South Miami Heights
 Biscayne Aquifer pumpage at 3 mgd
 drawdown map
 EXHIBIT 25D**

FIGURE 1
Locations of Wellfields and Canal Reaches



Legend

- █ Canal Reach A
- █ Canal Reach B
- █ Canal Reach D
- █ Canal Reach E
- █ Canal Reach L
- █ Canal Reach M
- █ Canal Reach N
- ◆ MDWASD Wellfields
- SFWMD Canals
- Major Roads

0 5 Miles

CH2MHILL.

FIGURE 6
Net Additional Canal Seepage Relative to Base Conditions, C-4 Canal

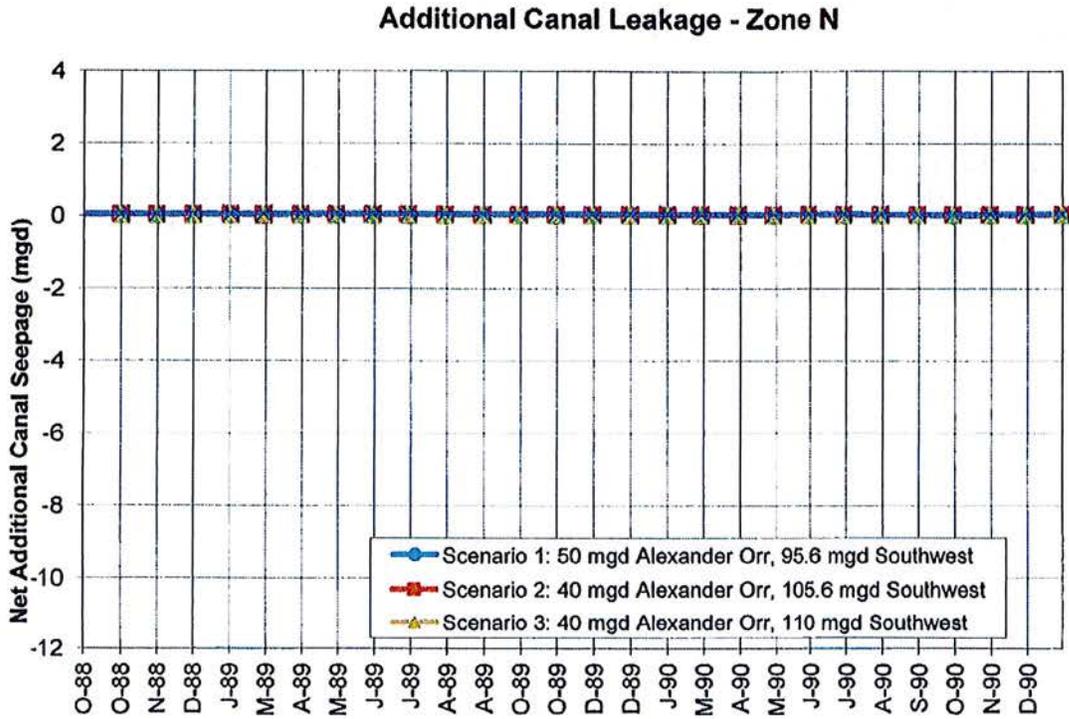


FIGURE 7
Total Net Additional Canal Seepage Relative to Base Conditions

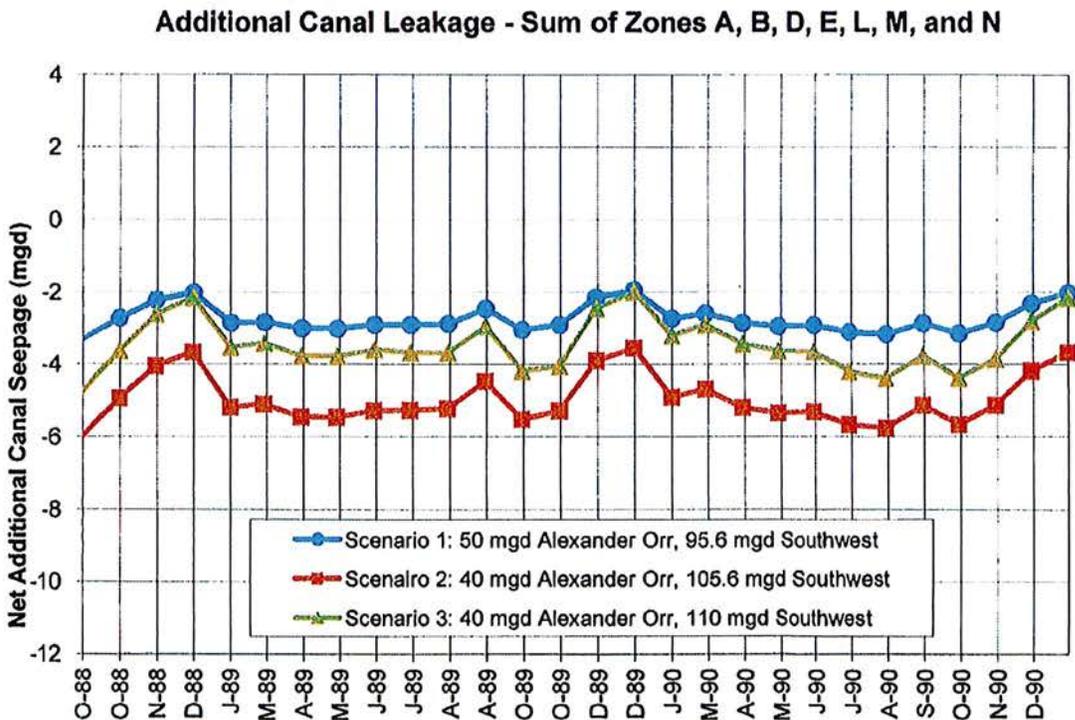


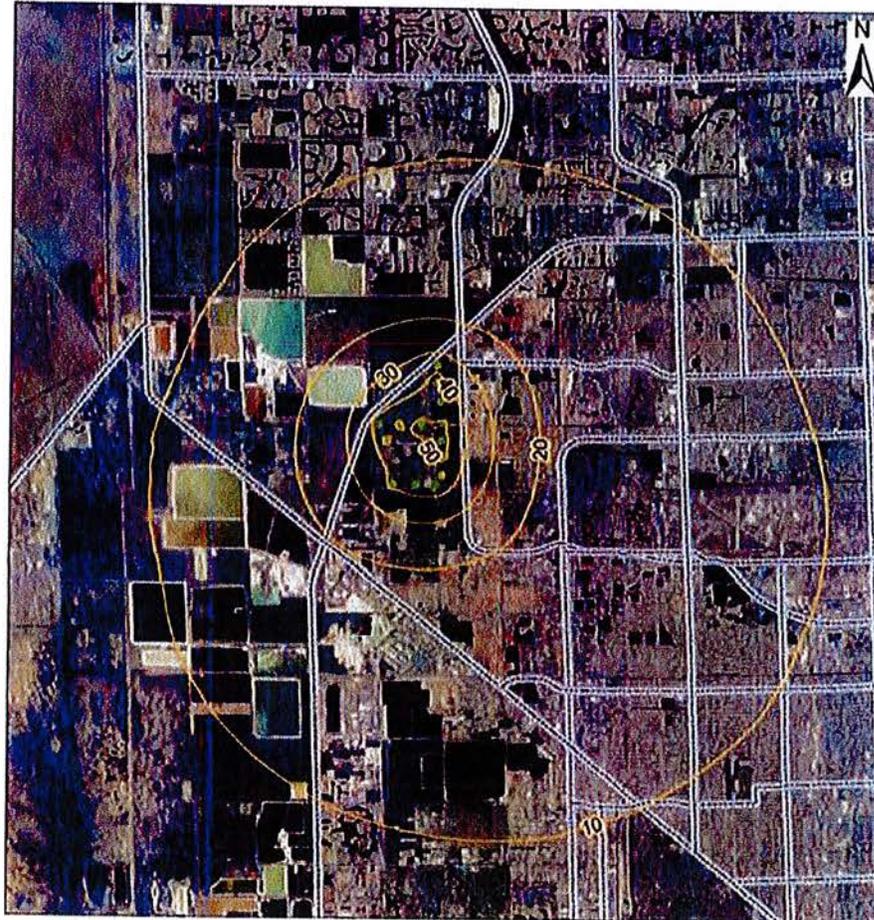
Table 5-1 ECFAS Model Structure and Hydraulic Parameters at Proposed Wellfield

Model Layer	Top Elevation (ft. NGVD)	Bottom Elevation (ft. NGVD)	Thickness (ft)	Aquifer	Boundary Conditions	H. Hydraulic conductivity (ft/day)	V. Hydraulic conductivity (ft/day)	Specific storativity (1/ft)	Effective Porosity
1	10	-194	204	SAS	constantHead	10	10	0.00125	0.25
2	-194	-1072	878	ICU	variable	0.006	0.0006	9.00E-07	0.35
3	-1072	-1207	135	UFA	variable	90	9	5.25E-07	0.18
4	-1207	-1341	134	UFA	variable	90	9	5.25E-07	0.18
5	-1341	-1494	153	MCU1	variable	0.01	0.002	9.00E-07	0.35
6	-1494	-1647	153	MCU1	variable	0.01	0.002	9.00E-07	0.35
7	-1647	-1721	74	APPZ	variable	450	45	7.50E-07	0.18
8	-1721	-1795	74	APPZ	variable	450	45	7.50E-07	0.18
9	-1795	-2000	205	MCU2	variable	0.3	0.0015	9.00E-07	0.35
10	-2001	-2207	206	MCU2	variable	0.3	0.0015	9.00E-07	0.35
11	-2207	-2412	205	MCU2	variable	0.3	0.0015	9.00E-07	0.35
12	-2412	-2514	102	LF1	variable	300	30	7.50E-07	0.18
13	-2514	-2977	463	LFCU1	variable	0.002	0.0002	9.00E-07	0.35
14	-2977	-3177	200	BZ	const Head	10000	10000	7.50E-07	0.18

Table 5-3 Revised Hydraulic Parameters at Proposed Wellfield

Layer	Bottom elevation (ft NGVD)	Kx (Ky) (TP1_Zone) (ft/day)	Kz (TP1_Zone) (ft/day)	Kx (ky) (Patch) (ft/day)	Kz (Patch) (ft/day)	Ss (1/ft)	Effective Porosity	Initial Concentration (TDS, mg/l)
1	-196	10	10	10	10	0.00125	0.25	350
2	-1080	0.006	0.0006	0.006	0.0006	9.00E-07	0.35	1520
3	-1210	10	2	32	4	3.00E-06	0.1	3500
4	-1300	10	2	32	4	1.00E-07	0.1	3500
5	-1480	10	10	10	10	1.00E-07	0.1	3500
6	-1550	0.01	0.01	0.01	0.01	1.00E-07	0.1	3900
7	-1721	450	45	450	45	7.50E-07	0.18	4600
8	-1795	450	45	450	45	7.50E-07	0.18	4600
9	-2000	0.3	0.0015	0.3	0.0015	9.00E-07	0.35	18410
10	-2207	0.3	0.0015	0.3	0.0015	9.00E-07	0.35	18410
11	-2412	0.3	0.0015	0.3	0.0015	9.00E-07	0.35	18410
12	-2514	300	30	300	30	7.50E-07	0.18	35000
13	-2977	0.002	0.0002	0.002	0.0002	9.00E-07	0.35	35000
13	-3177	10000	10000	10000	10000	7.50E-07	0.18	35000

Exhibit 26A



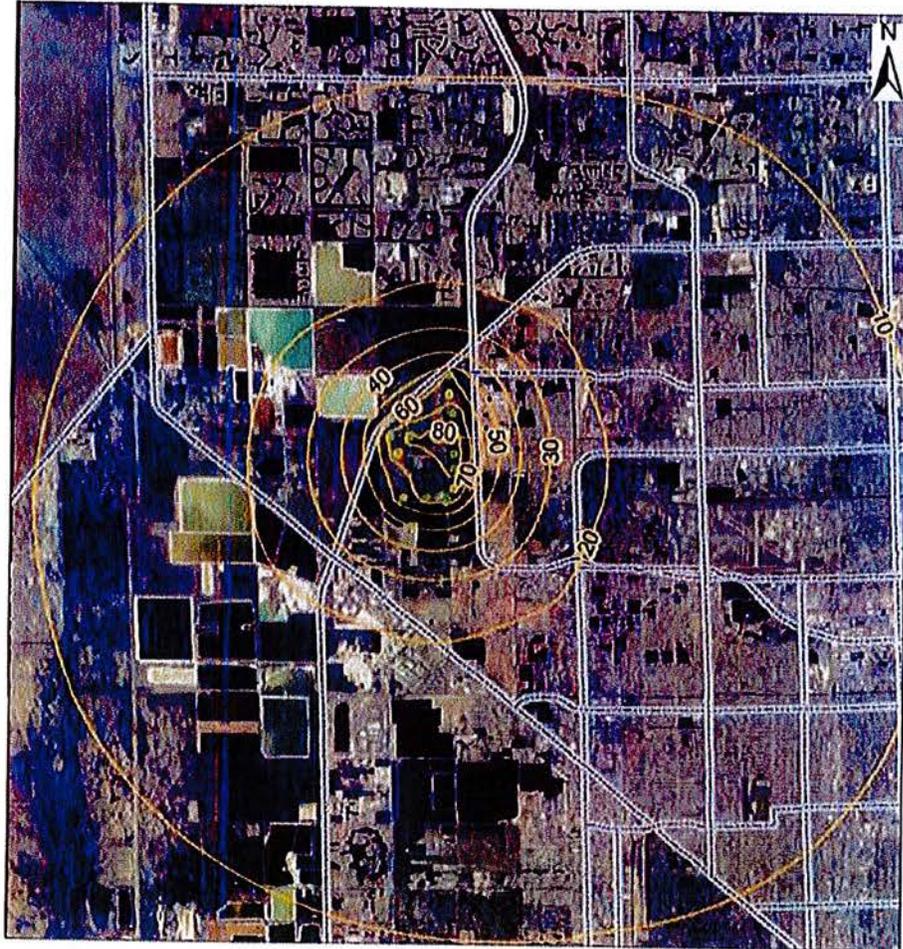
Legend

- Drawdown (ft)
- Production Well
- Roads

2 1 0 2 Miles



Figure 5-8e: Simulated drawdown (ft) in Model Layer 4 due to Pumpage of 13.33 MGD from the UFA after 30 Years



Legend

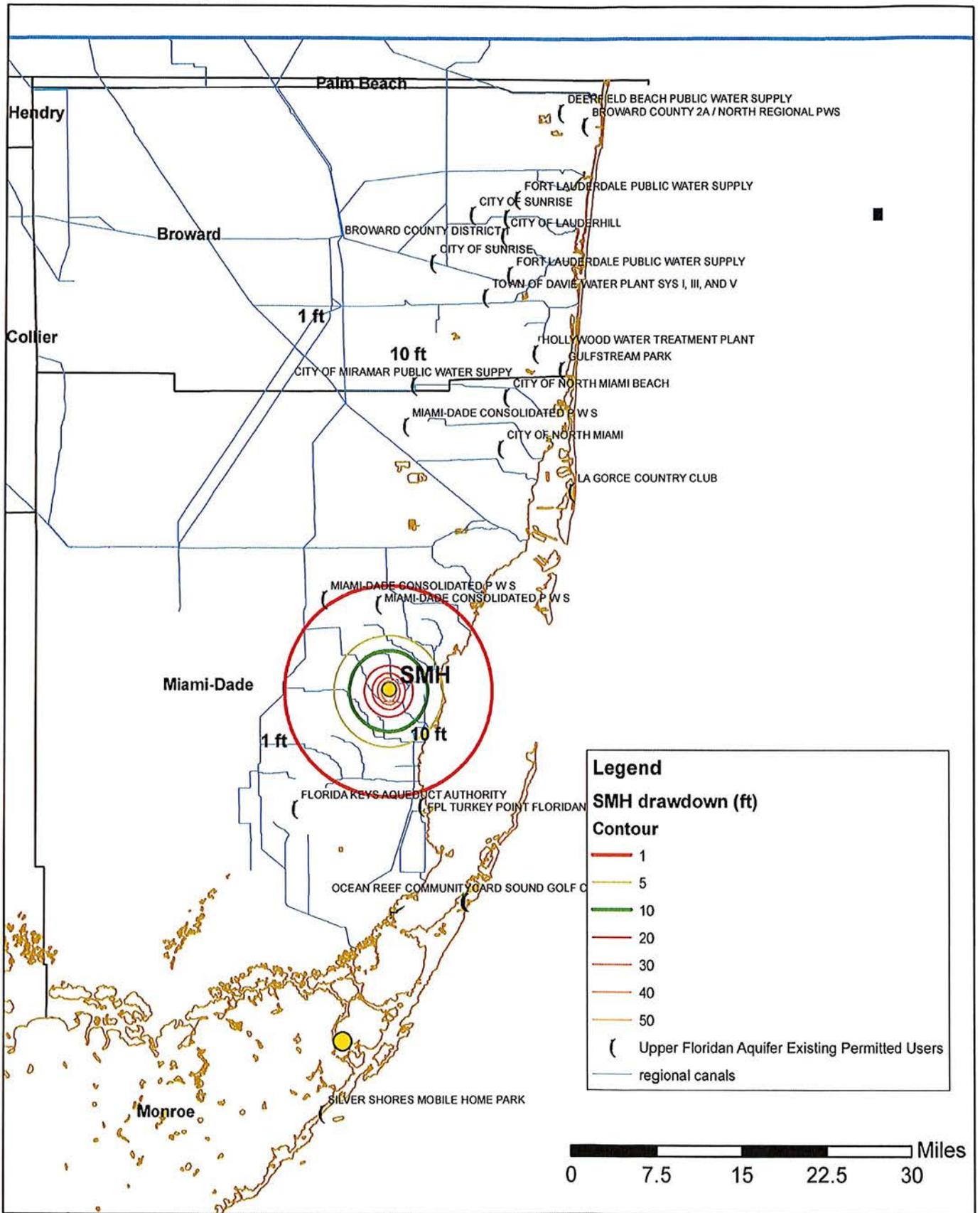
- Drawdown (ft)
- Production Well
- Roads

2 1 0 2 Miles



Figure 5-8b: Simulated drawdown (ft) in Model Layer 4 due to Proposed Pumping up to 23.33mgd from the UFA after 30 Years

Exhibit 26C



Miami-Dade County
 Water and Sewer Department
 3071 SW 38 Ave
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Figure 6.
 South Miami Heights at 24 mgd drawdown
 EXHIBIT 26D

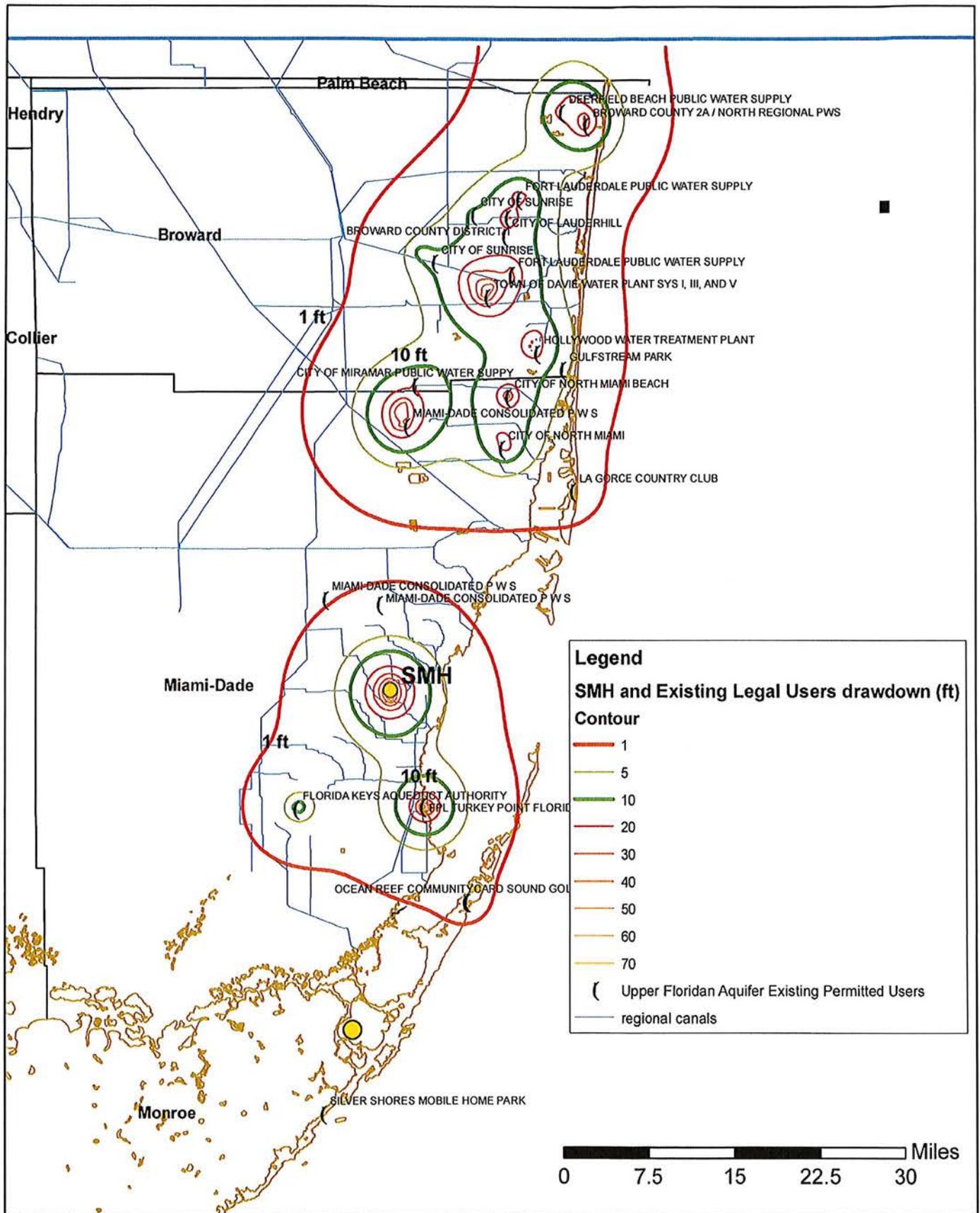
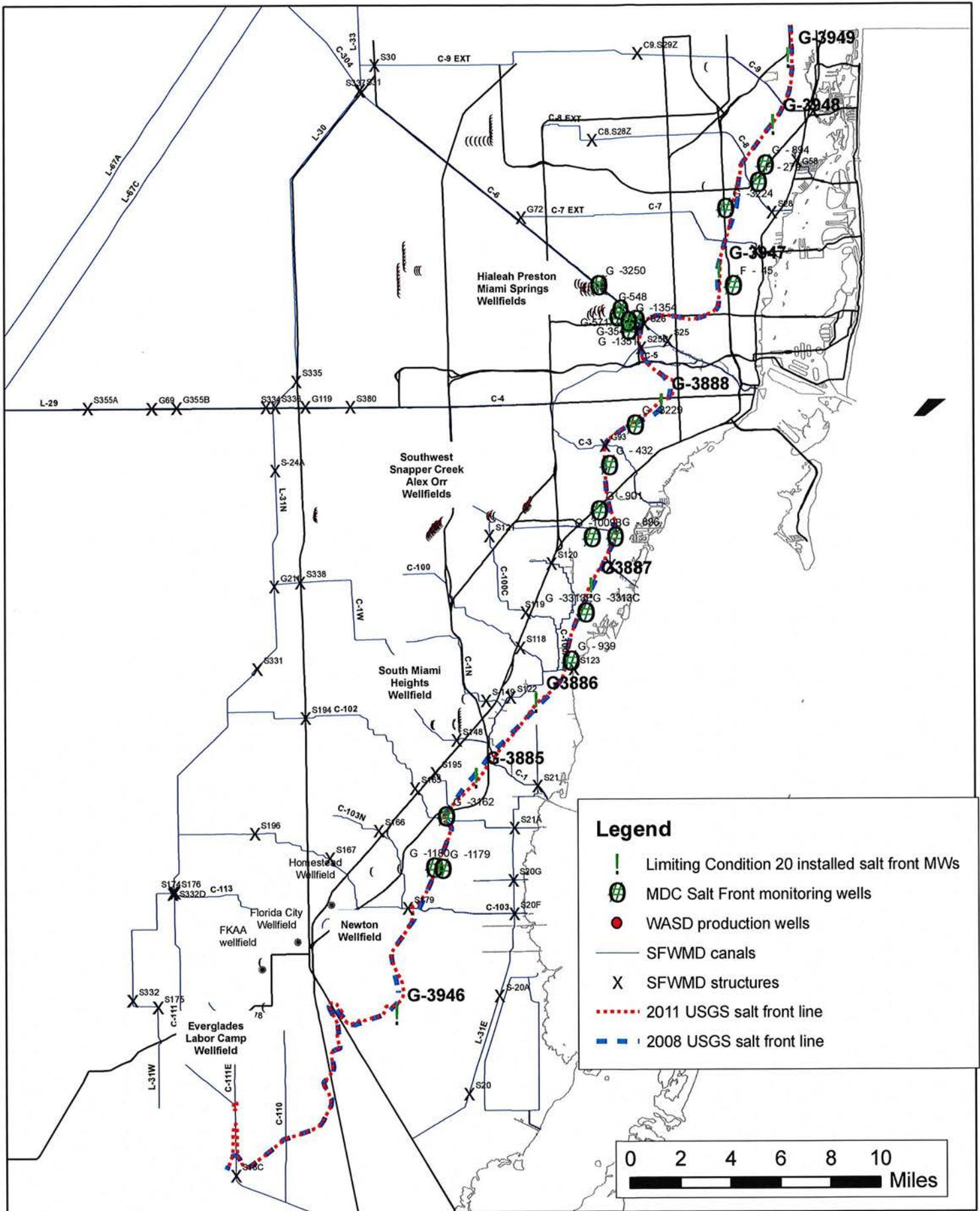


Figure 7.

SMH at 24 mgd
and Existing legal users drawdown
EXHIBIT 26E



Miami-Dade County
Water and Sewer Department
3071 SW 38 Ave
Miami FL 33146



Miami-Dade Water and Sewer Department
 3071 SW 38 Ave
 Miami FL 33146

Figure 2. 2011 Miami-Dade County Salt Front Monitoring Network EXHIBIT 27A

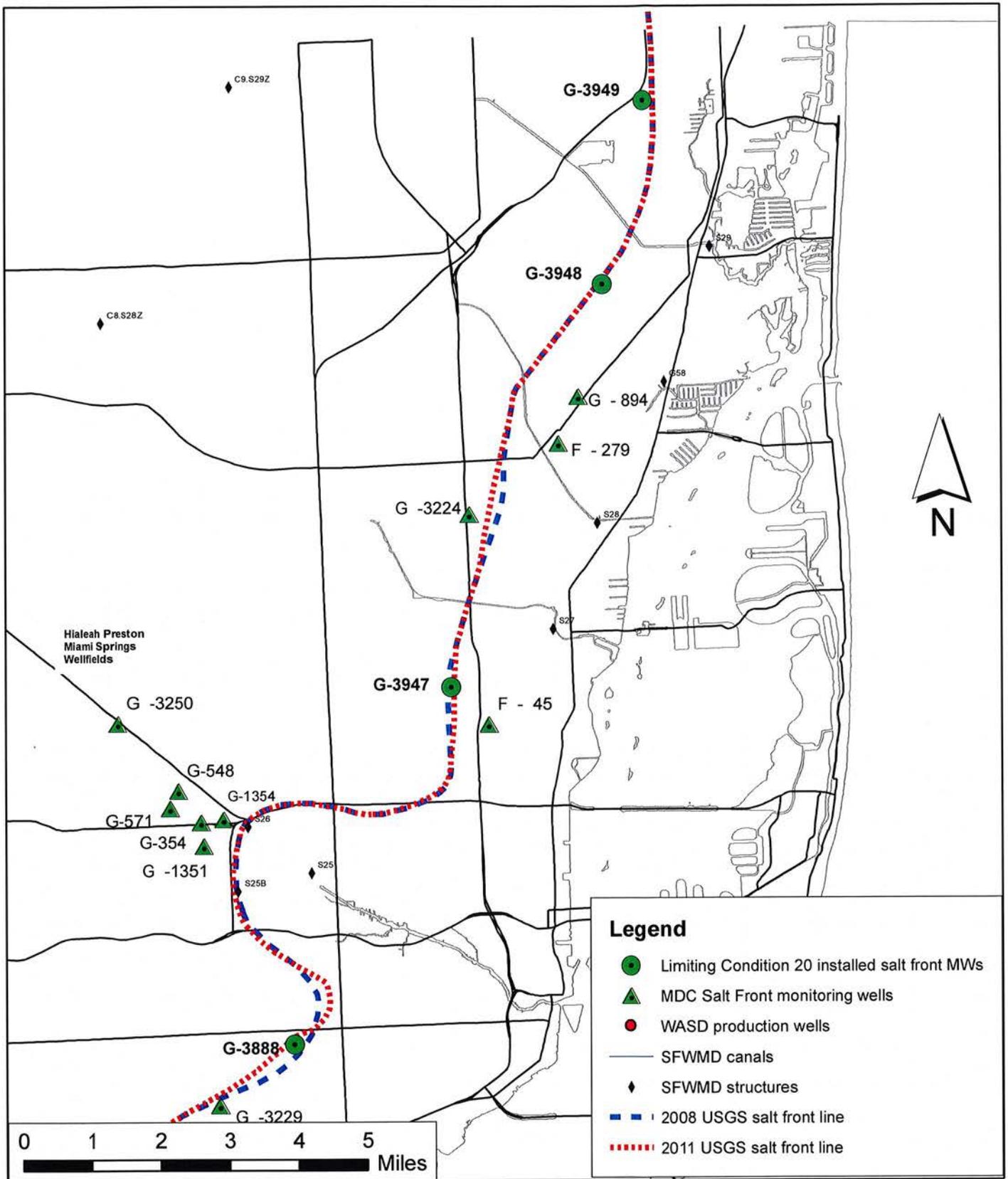


Figure 2. 2015 North Miami-Dade County Salt Front Monitoring Network 1/28/15



Miami-Dade Water and Sewer Department
 3071 SW 38 Ave
 Miami FL 33146

Exhibit 27B

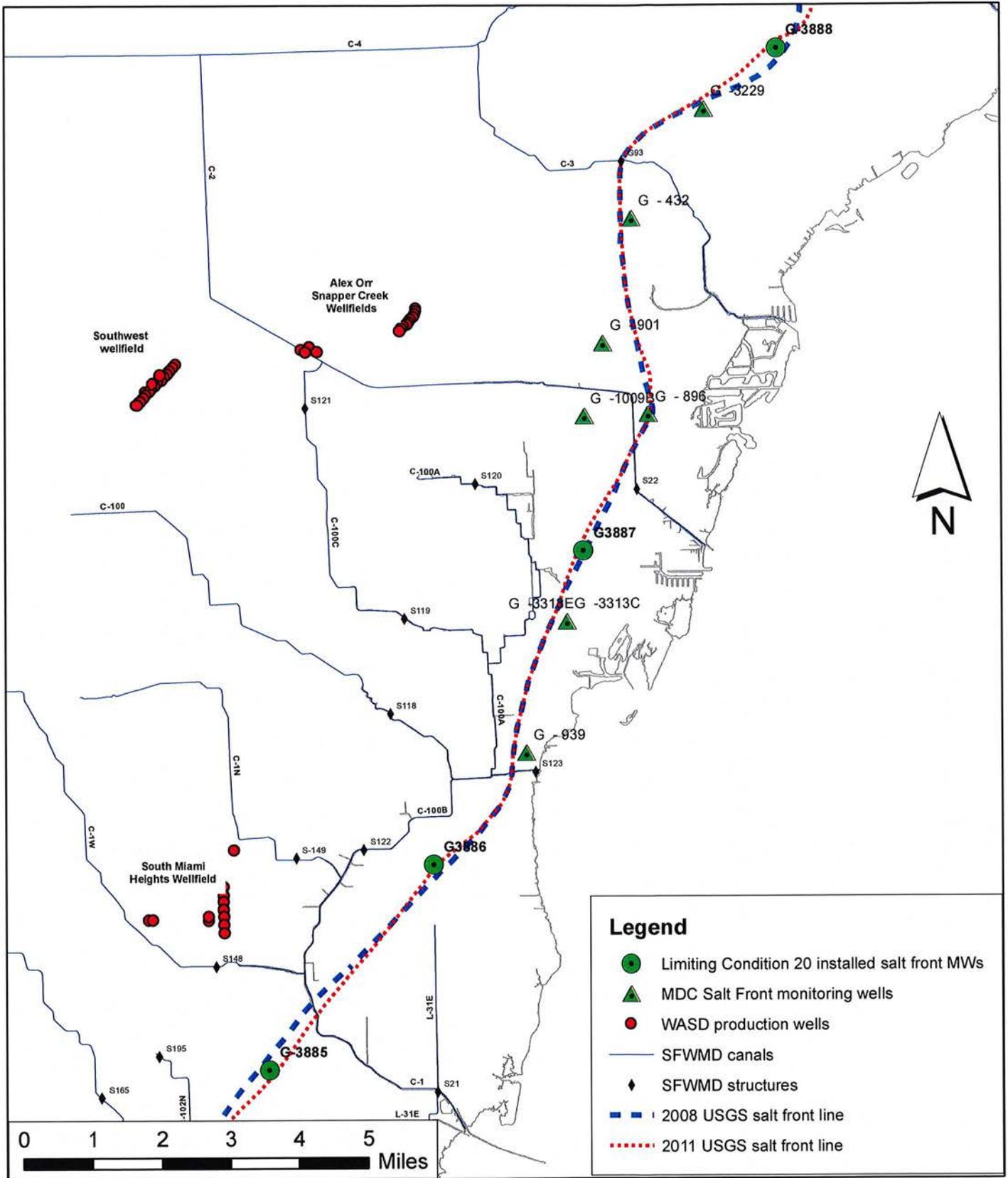


Figure 3. 2015 Central Miami-Dade County Salt Front Monitoring Network
1/28/15



Miami-Dade Water and Sewer Department
3071 SW 38 Ave
Miami FL 33146

Exhibit 27C

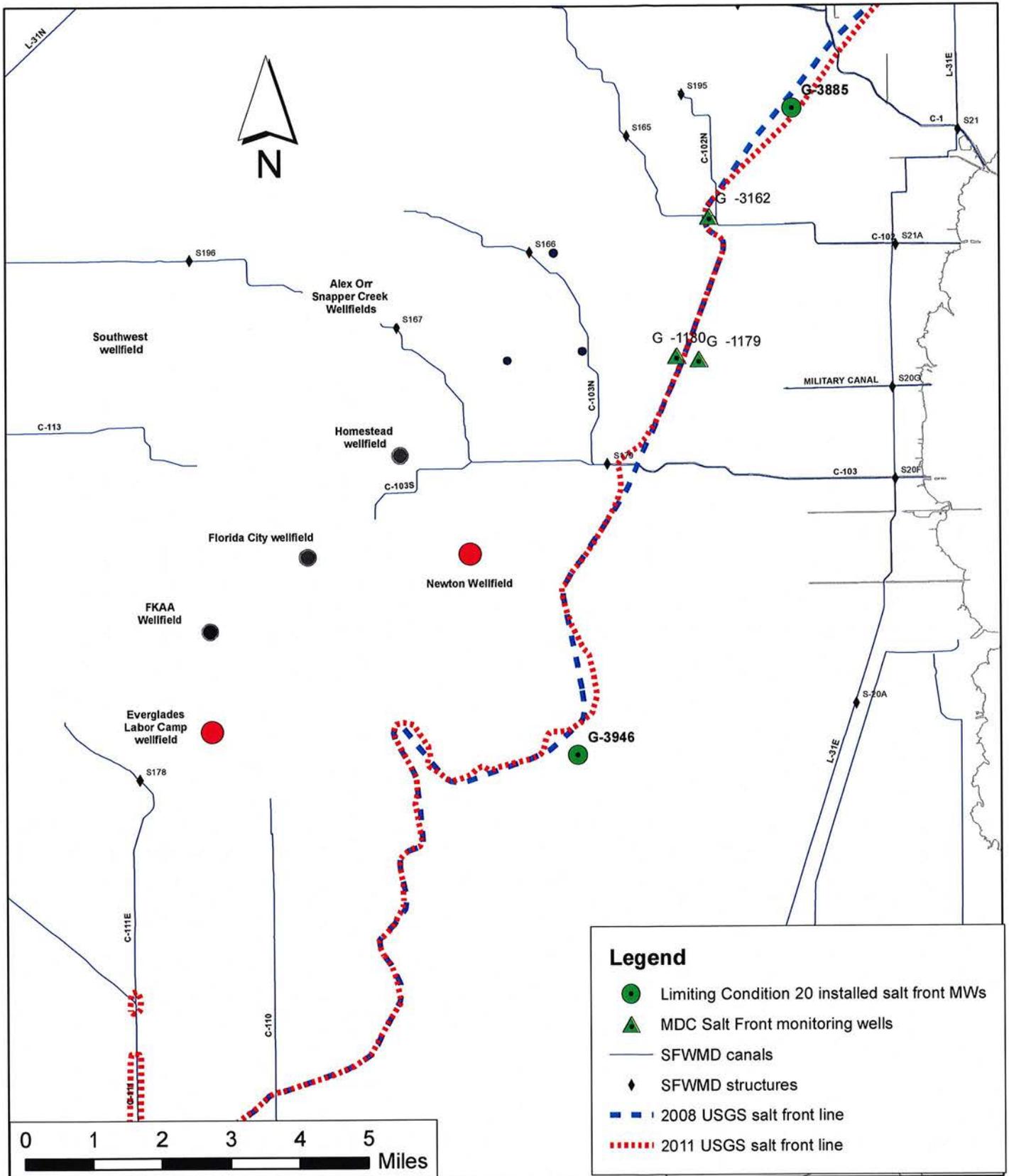


Figure 4. 2015 South Miami-Dade County Salt Front Monitoring Network
1/28/15



Miami-Dade Water and Sewer Department
3071 SW 38 Ave
Miami FL 33146

Exhibit 27D

Table C-1. Reporting Miami-Dade County Salt Front Monitoring Wells

USGS ID	STATION NAME	LATITUDE	LONGITUDE	SITE USE	HOLE DEPTH (ft) ^B	WELL DEPTH (ft) ^B	CASING DEPTH (ft) ^B	Current GWL measurement Freq.	Current Cl Sampling Freq	Induction Log Done	2007 Chloride (mg/l)	2008 Chloride (mg/l)	2009 Chloride (mg/l)	2010 Chloride (mg/l)	2011 Chloride (mg/l)	2012 Chloride (mg/l)
253831080180204	G -3313E	25 38 34.4	-080 18 04.7	observation/monitoring	114	114	32	quarterly	quarterly	No	5100	5400	1500	713	5600	4600
253831080180204	G -3313C	25 38 35.1	-080 18 04.8	observation/monitoring	110	110	open hole	quarterly	quarterly	No	4000	4200	4250	4400	4717	4351
254946080172601	G -3250	25 49 46	-080 17 26	observation/monitoring	116	116	106	Monthly	Monthly	Yes	68	131	139	176	181	200
254457080160301	G -3229	25 44 57	-080 16 03	observation/monitoring	85	85	A	Monthly	Monthly	No	700	807	900	1217	1606	1883
255222080123001	G -3224	25 52 22	-080 12 30	observation/monitoring	95.5	95.5	94	Monthly	Monthly	No	44	39	41	41	42	41
253202080232601	G -3162	25 31 32	-080 23 25	observation/monitoring	92	92	82	quarterly	quarterly	No	1140	1208	1284	1303	1280	1267
254833080155801	G -1354	25 48 33	-080 15 58	observation/monitoring	104	104	91	Monthly	quarterly	No	56	53	516	48	49	58
254813080161501	G -1351	25 48 13	-080 16 15	observation/monitoring	103	103	100	Monthly	Monthly	No	540	530	520	503	492	474
252947080235301	G -1180	25 29 47	-080 23 53	observation/monitoring	67	67	open hole	Monthly	Monthly	No	32	30	17	27	25	17
252944080233401	G-1179	25 29 44.9	-80 23 33	observation/monitoring	80	80	open hole	twice a year	twice a year	Yes	3175	2950	2450	2350	2898	2800
254106080174601	G -1009B	25 41 06	-080 17 46	observation/monitoring	100	100	NA	Monthly	Monthly	No	50	59	59	62	60	75
253652080183701	G-939	25 36 53.8	-080 18 35.4	observation/monitoring	61	61	NA	twice a year	twice a year	No	3100	3050	3333	3750	3900	3808
254201080173001	G-901	25 42 03.0	-080 16 54.4	observation/monitoring	96	96	95	twice a year	twice a year	No	2325	2375	2550	2438	2550	2667
253710080184701	G -3611	25 37 10.4	-080 18 45.4	observation/monitoring	100	100	95	quarterly	quarterly	Yes	200	173	172	170	169	165
254107080165201	G - 896	25 41 07	-080 16 52	observation/monitoring	74	74	60	Monthly	Monthly	No	245	247	235	248	245	258
255350080105801	G - 894	25 53 51.7	-080 10 57.2	observation/monitoring	76	76	75	Monthly	Monthly	No	24	21	21	22	23	21
254841080164401	G - 571	25 48 41	-080 16 44	observation/monitoring	94.5	94.5	95	Monthly	Monthly	No	32	32	30	34	35	34
254855080163701	G-548	25 48 55.9	-080 16 36.4	observation/monitoring	97	97	91	Monthly	twice a year	No	41	40	36	34	32	31
254335080170501	G-432	25 43 35.9	-080 17 03.3	observation/monitoring	100	100	98	Monthly	twice a year	No	4000	4150	4500	4775	5142	5467
254828080161501	G - 354	25 48 28	-080 16 15	observation/monitoring	90	90.2	89	quarterly	quarterly	No	54	53	50	49	46	45
255315080111501	F-279	25 53 17.8	-080 11 14.6	observation/monitoring	117	117	NA	Monthly	quarterly	No	3150	3300	3383	3475	3583	3675
254943080121501	F - 45	25 49 43	-080 12 15	observation/monitoring	84.9	84.9	84	Monthly	Monthly	No	104	87	97	97	113	118
253253080221201	G-3885	25 32 53.1	-080 22 12.7	observation/monitoring	91	86	86	Monthly	Monthly	No	NA	NA	NA	NA	36	36
2535270801195400	G-3886	25 35 27.9	-080 19 54.2	observation/monitoring	109	101	101	Monthly	Monthly	No	NA	NA	NA	NA	51	49
253924080174601	G-3887	25 39 24.7	-080 17 46.8	observation/monitoring	134	130	130	Monthly	Monthly	No	NA	NA	NA	NA	2238	2292
254542080145901	G-3888	25 39 2407	-080 14 5908	observation/monitoring	149	144	144	Monthly	Monthly	No	NA	NA	NA	NA	5029	5225
252431080261001	G-3946	25 24 30.7	-080 26 09.7	observation/monitoring	99	98	87	Monthly	Monthly	No	NA	NA	NA	Under con	3717	4158
255011080124501	G-3947	25 50 11.3	-080 12 45.4	observation/monitoring	229	227	200	Monthly	Monthly	No	NA	NA	NA	Under con	28	25
255515080103601	G-3948	25 55 14.9	-080 10 36.2	observation/monitoring	279	277	273	Monthly	Monthly	No	NA	NA	NA	Under con	3992	
255733080195601	G-3949	25 57 33.6	-080 09 56.5	observation/monitoring	349	349	325	Monthly	Monthly	No	NA	NA	NA	Under con	115	121

A. Per USGS, depth of the casing is not precisely known.

B. Feet Below Land Surface (bls)

GWL: groundwater level

Cl: chloride

EXHIBIT 28A

Table 2. Additional USGS Salt Monitoring Wells in Miami-Dade County

updated 01/29/2015

USGS ID	STATION NAME	LATITUDE	LONGITUDE	SITE USE	WELL DEPTH (ft) ^A	CASING DEPTH (ft) ^A	Induction Log Done	2005 Chloride (mg/l)	2010 Chloride (mg/l)	2014 Chloride (mg/l)
255625080094901	G -3705	25 56 25	-080 09 49	observation/monitoring	135	125.0	Yes	1720	1500	3000
254822080125501	G -3704	25 48 22	-080 12 55	observation/monitoring	112	107.0	Yes	4100	5300	6500
253334080213601	G -3702	25 33 34	-080 21 36	observation/monitoring	83	78.0	Yes	980	980	890
253214080224601	G -3701	25 32 14	-080 22 46	observation/monitoring	83	78.0	Yes	30	465	460
253027080234701	G -3700	25 30 27	-080 23 47	observation/monitoring	82.5	77.5	Yes	30	26	20
252652080244301	G -3699	25 26 52	-080 24 43	observation/monitoring	88	83.0	Yes	5700	8800	10758
252814080244101	G -3698	25 28 13.6	-080 24 41	observation/monitoring	85	80.0	Yes	34	26	2575
253024080231001	G -3615	25 30 24	-080 23 10	observation/monitoring	80	75.0	Yes	1120	1640	3900
253457080195501	G -3612	25 34 57	-080 19 55	observation/monitoring	62	56.0	Yes	1380	1220	1300
253819080183201	G -3610	25 38 14	-080 18 32	observation/monitoring	100	95.0	Yes	51	47	47
254005080171601	G -3609	25 40 05	-080 17 16	observation/monitoring	85	80.0	Yes	940	1300	2125
254108080170601	G -3608	25 41 08	-080 17 06	observation/monitoring	100	95.0	Yes	230	122	83
254156080172101	G -3607	25 41 56	-080 17 21	observation/monitoring	120	115.0	Yes	70	62	615
254341080174001	G -3606	25 43 41	-080 17 40	observation/monitoring	120	115.0	No	44	42	37
254629080143101	G -3605	25 46 29	-080 14 31	observation/monitoring	110	105.0	Yes	1460	1800	2275
254722080152201	G -3604	25 47 22	-080 15 22	observation/monitoring	120	115.0	Yes	2800	5000	5900
254908080125201	G -3603	25 49 08	-080 12 52	observation/monitoring	167	162.0	No	66	78	120
255116080120601	G -3602	25 51 16	-080 12 06	observation/monitoring	160	155.0	Yes	3100	3800	4675
255358080114101	G -3601	25 53 58	-080 11 41	observation/monitoring	190	185.0	Yes	1100	1300	1475
254152080282601	G-3898	25 41 52	-80 28 25	observation/monitoring	23	23.0	No		56	46
253948080250701	G-3897	25 39 47	-80 25 08	observation/monitoring	23	22.5	No		41	36
252718080264901	G-3900	25 27 15	-80 26 49	observation/monitoring	22	22.0	No		42	41
252506080300601	G-3901	25 25 06	-80 30 06	observation/monitoring	22	22.3	No			25

A. Feet Below Land Surface (bls)

EXHIBIT 28B

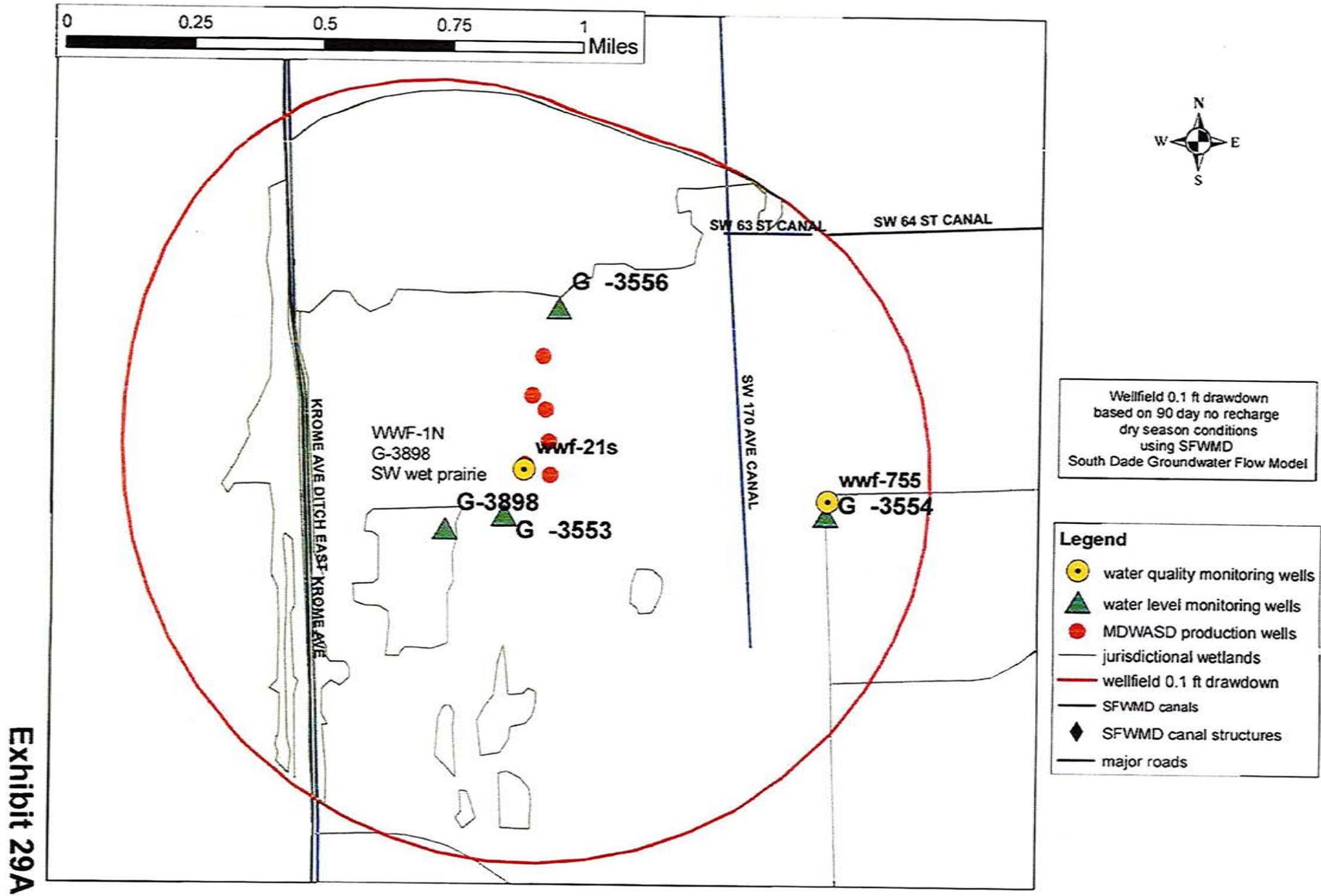


Exhibit 29A

Figure 7. West Wellfield Groundwater Level and Water Quality Monitoring

updated 9/21/10

Exhibit 29C

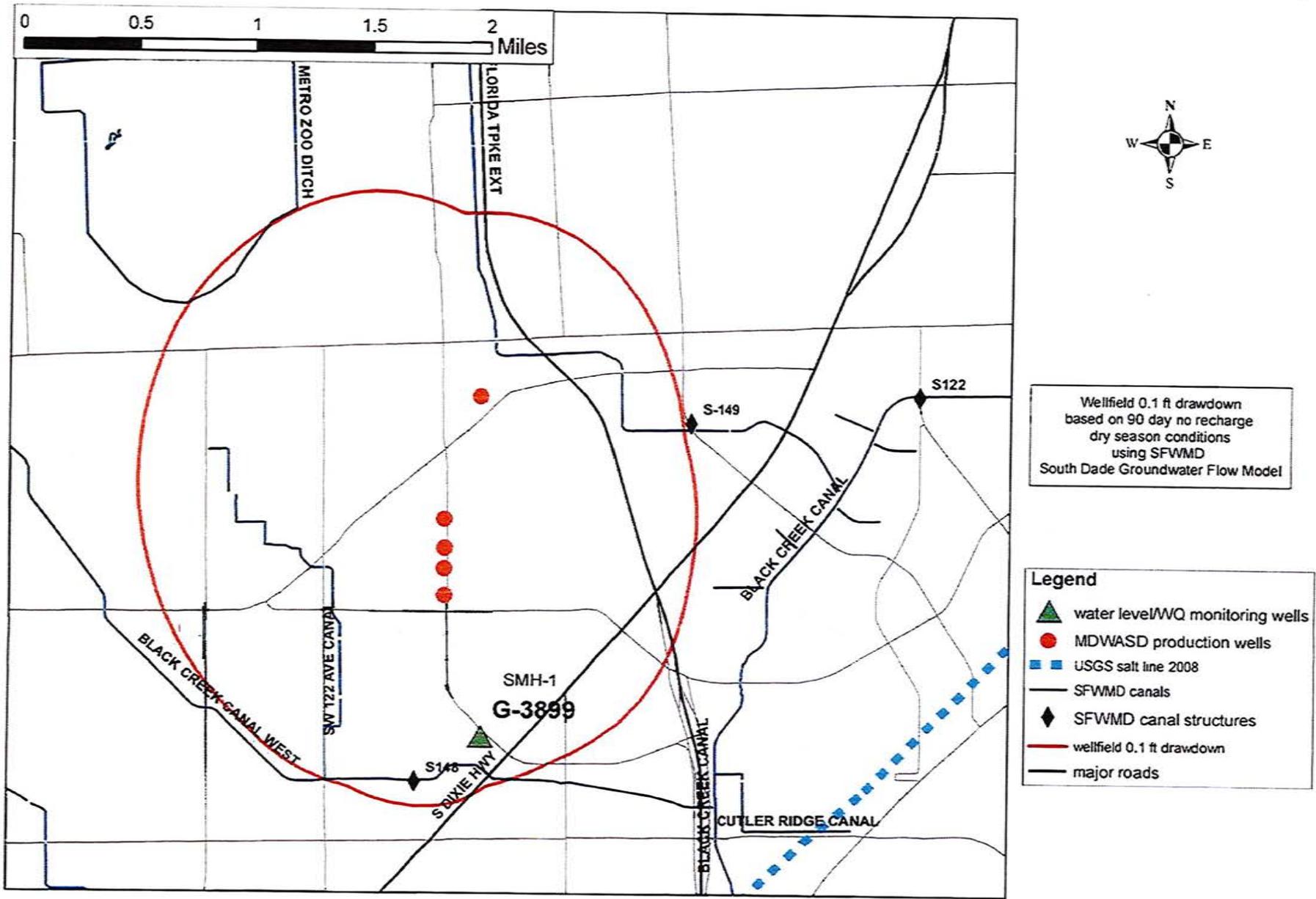


Figure 9. South Miami Heights Wellfield Groundwater Level and Water Quality Monitoring

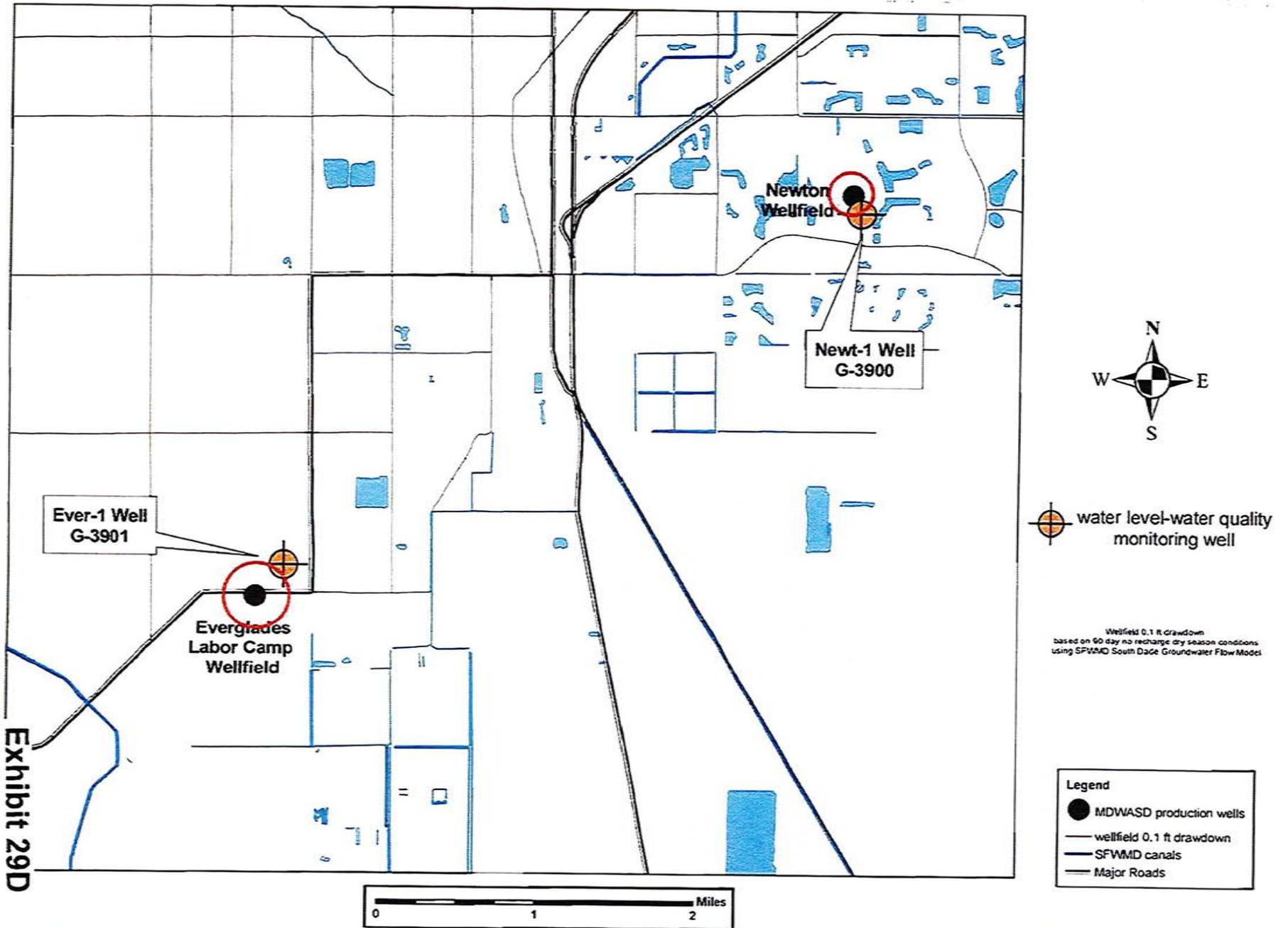


Exhibit 29D

Figure 10. South Dade Wellfields Groundwater Level and Water Quality Monitoring

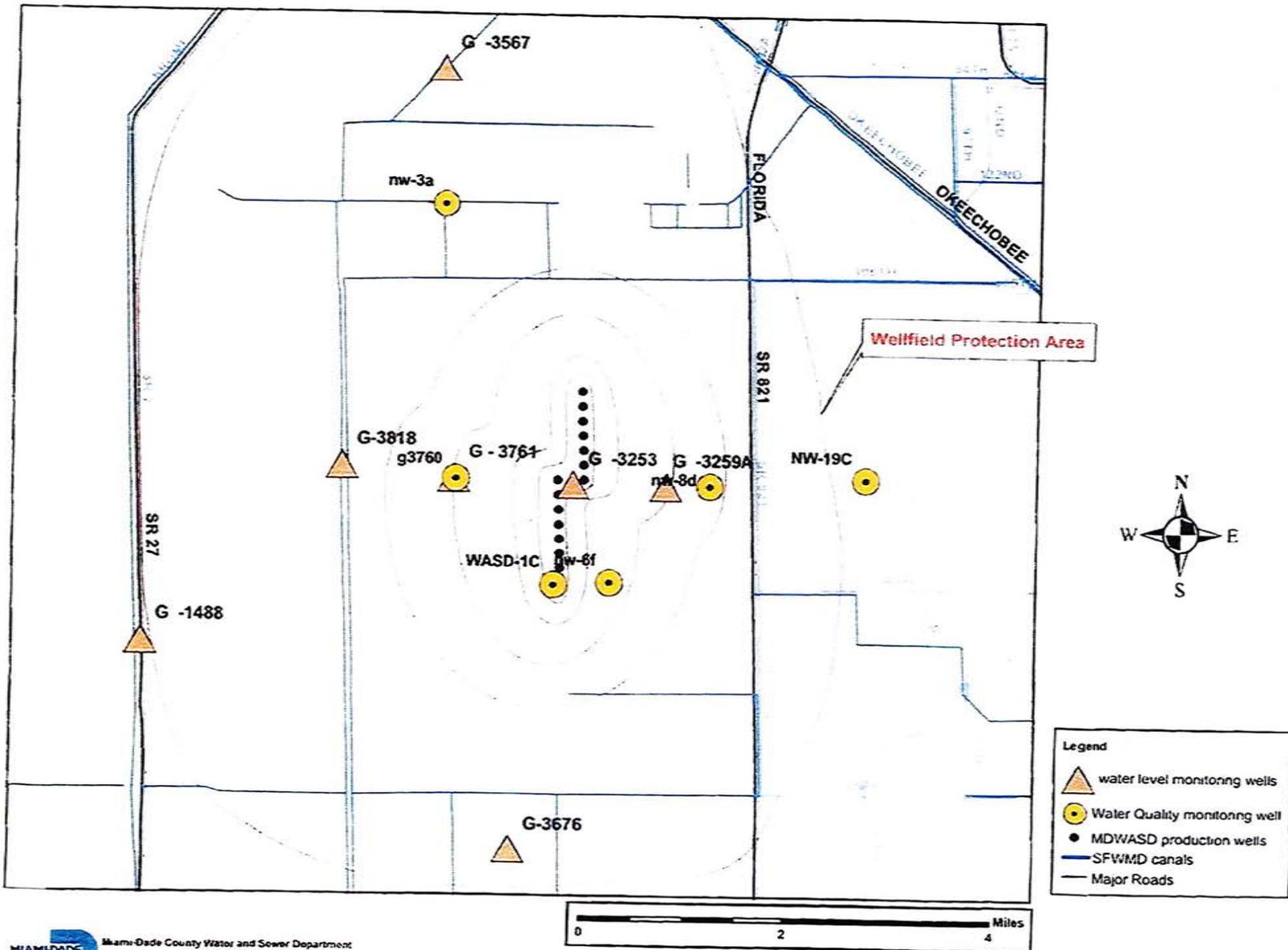


Figure 11. Northwest Groundwater Level and Water Quality Monitoring
11-8-07

Table A. Reporting Water Quality and Water Level Biscayne Monitoring Wells by Wellfield.

01/29/2015

WELL ID	STATION ID	LATITUDE	LONGITUDE	SITE USE	BORE HOLE DEPTH (ft) ¹	CASING DEPTH (ft) ¹	Screen Interval (ft) ¹	WELLFIELD PUMPAGE INTERVERVAL (ft) ¹	GROUND WATER LEVEL MONITOR FREQUENCY	WATER QUALITY MONITORING FREQUENCY	WELLFIELD
254130080234501	G-551	25 41 30	-080 23 45	standby supply	80.0	71	29-71	33-108	CONTINUOUS		AO, SC, SWWF
253902080202501	G-553	25 39 02	-080 20 19	observation/monitoring	91.0	79	no screen	33-108	CONTINUOUS		AO, SC, SWWF
254215080201503	G-1074B	25 42 15	-080 20 15	observation/monitoring	39.0	17.0	no screen	33-108	CONTINUOUS		AO, SC, SWWF
	G-3913										
254111080272501	G-3555	25 41 11	-080 27 25	observation/monitoring	19.0	14.0	14-19	33-108	CONTINUOUS		AO, SC, SWWF
254340080203601	G-3563	25 43 40	-080 20 36	observation/monitoring	18.1	13	no screen	33-108	CONTINUOUS		AO, SC, SWWF
254218080241801	G-3565	25 42 18	-080 24 18	observation/monitoring	19.0	14	no screen	33-108	CONTINUOUS		AO, SC, SWWF
DERM Well	AO-6N	25 42 07	-080 20 41	observation/monitoring	60	60	55 - 60	40-100	3xYear	3xYear	AO
DERM Well	AO-8C	25 43 00	-080 19 50	observation/monitoring	60	60	55 - 60	40-100	3xYear	3xYear	AO
DERM Well	SC-1N	25 42 17	-080 21 40	observation/monitoring	60	60	55 - 60	50-108	3xYear	3xYear	SC
DERM Well	SC-6N	25 41 38	-080 21 27	observation/monitoring	60	60	55 - 60	50-108	3xYear	3xYear	SC
DERM Well	SW-2W	25 41 49	-080 24 12	observation/monitoring	60	60	55 - 60	33-104	3xYear	3xYear	SWWF
DERM Well	SW-7W	25 41 01	-080 24 10	observation/monitoring	60	60	55 - 60	33-104	3xYear	3xYear	SWWF
254158080294501	G-3551	25 41 58	-080 29 45	observation/monitoring	18.3	13.3	13.3-18.3	35-70	CONTINUOUS		WWF
254152080282101	G-3553	25 41 52	-080 28 21	observation/monitoring	19.9	14.9	14.9-19.9	35-70	CONTINUOUS		WWF
254152080274501	G-3554	25 41 52	-080 27 45	observation/monitoring	20.0	15.0	15-20	35-70	CONTINUOUS		WWF
254213080281501	G-3556	25 42 13	-080 28 15	observation/monitoring	19.1	14.1	14.1-19.1	35-70	CONTINUOUS		WWF
254207080300201	G-3577	25 42 07	-080 30 02	observation/monitoring	8.0	Open Hole	no screen	35-70	CONTINUOUS		WWF
DERM Well	WWF-21S	25 41 56	-080 28 18	observation/monitoring	48	48	43 - 48	35-70	3xYear	3xYear	WWF
DERM Well	WWF-755	25 41 53	-080 27 44	observation/monitoring	55	55	50 - 55	35-70	3xYear	3xYear	WWF
253948080250701	G-3897	25 39 47	-080 25 08	observation/monitoring	22.5	22.5	17.5-22.5	33-104	CONTINUOUS		SWWF
254152080282601	G-3898	25 41 52	-080 28 25	observation/monitoring	22.8	22.8	17.8-22.8	35-70	CONTINUOUS		WWF
MDWASD well	G-3899	25°34.322N	80°22.633W	observation/monitoring	20.5	15.5	15.5-20.5	*	CONTINUOUS	3xYear	SMH
MDWASD well	G-3901	25°25.109N	80°30.108W	observation/monitoring	22.3	17	17.3-22.3	45-55	CONTINUOUS	3xYear	EVERGLADES
MDWASD well	G-3900	25°27.252N	80°26.811W	observation/monitoring	22	17	17-22	50-65	CONTINUOUS	3xYear	NEWTON
254830080284201	G-1488	25 49 07	-080 28 57	observation/monitoring	20.0	Open Hole	no screen	46-100	CONTINUOUS		NWWF
255027080245501	G-3253	25 50 27	-080 24 55	observation/monitoring	34.5	18.0	no screen	46-100	CONTINUOUS		NWWF
255026080240302	G-3259A	25 50 26	-080 24 03	observation/monitoring	60.0	Open Hole	no screen	46-100	CONTINUOUS		NWWF
255358080260901	G-3567	25 53 58	-080 26 09	observation/monitoring	18.7	13.7	no screen	46-100	CONTINUOUS		NWWF
255035080255402	G-3761	25 50 29	-080 26 02	observation/monitoring	16.3	Open Hole	no screen	46-100	CONTINUOUS		NWWF
254720080253002	G-3676	25 47 20	-080 25 30	observation/monitoring	33.0	23.0	23-33	46-100	CONTINUOUS		NWWF
255036080270501	G-3818	25 50 36	-080 27 05	observation/monitoring	20.0	15.0	15-20	46-100	CONTINUOUS		NWWF
Derm Well	NW-8D	25 50 26	-080 23 38	observation/monitoring	60	60	55 - 60	46-100	3xYear	3xYear	NWWF
Derm Well	NW-6F (replaced NW6D in 2004)	25 49 37	-080 24 30	observation/monitoring	60	60	55 - 60	46-100	3xYear	3xYear	NWWF
Derm Well	WASD-1C ²	25 51 18	-080 24 49	observation/monitoring	40	40	35 - 40	46-100	3xYear	3xYear	NWWF
Derm Well	G-3760 ¹	25 50 29	-080 26 02	observation/monitoring	72.7	70.7	no screen	46-100	CONTINUOUS	3xYear	NWWF
Derm Well	NW-3AR	25 52 50	-080 26 08	observation/monitoring	90	85	85-90	46-100	3xYear	3xYear	NWWF
Derm Well	NW-19C	25 50 31	-080 22 13	observation/monitoring	50	50	45 - 50	46-100	3xYear	3xYear	NWWF

Notes:

AO=Alex Orr Wellfield
Heights WTP

SWWF=Southwest Wellfield
NWWF=Northwest Wellfield

1. Feet Below Land Surface (bls)
2. Located in NWWF compound, just north of pump house #15
3. Located west of NWWF, on FPL easement

** - pending survey TOC and GPS coordinates
* proposed production well interval

EXHIBIT 30

TABLE B. DERM Ground Water Quality Monitoring Parameter and Frequency Schedule

Parameter Selection in Water	sampling frequency
NUTRIENTS	
NH3	3x
NOxN	3x
T-P	3x
CATIONS	
Ca ⁺	annual
K ⁺	annual
Mg ⁺	annual
Na ⁺	annual
ANIONS	
Cl ⁻	3x
CN ⁻	annual
F ⁻	annual
SO4 ⁻	annual
PHYSICAL PROPERTIES	
Color	3x
Hardness	annual
Turbidity	3x
TDS	3x
TSS	
METALS (TOTAL)	
Al	annual
As	annual
Ag	annual
Ba	annual
Cd	annual
Cr	annual
Cr ⁶⁺ (hexavalent)	annual
Cu	annual
Fe	annual
Hg	annual
Mn	annual
Ni	annual
Pb	annual
Se	annual
Zn	annual
AGGREGATE ORGANICS	
Phenols	annual
TOC	annual
TKN	annual
INDIVIDUAL ORGANICS	
8081 - Chlorinated Pest.	annual
- Chlorinated Herbicide	annual
8021/B - Volatile Organics	3x
8270 - Semivolatiles	annual
Organophosphorous SW 8141	annual
507 - Triazines	annual
531 - Carbamates	annual
547 - Glyphosate	annual
Fecal Coliform	3x
Total Coliform	3x

SCANNED 05/13/2014 15:20:10

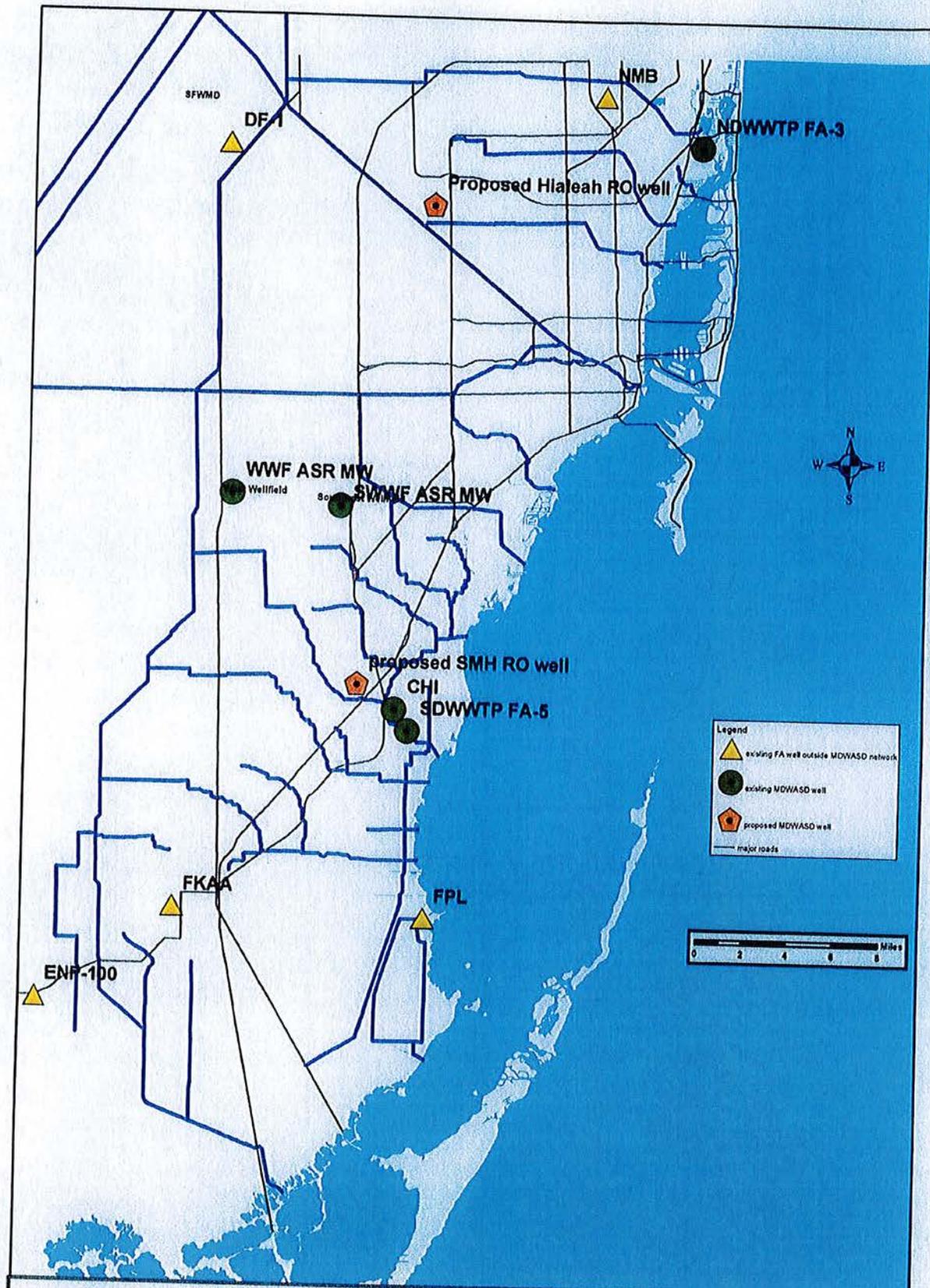


Figure 13. Floridan Aquifer Monitoring Network Design



Miami-Dade County Water and Sewer Department
3071 SW 38 Ave
Miami FL 33140

EXHIBIT 32A

Table C. Floridan Aquifer Monitoring Wells

WELL ID	LOCATION	LATITUDE	LONGITUDE	BORE HOLE DEPTH (ft) ²	CASING DEPTH (ft) ²	MONITORING INTERVAL (ft) ²	PRESSURE LEVEL MONITOR FREQUENCY	WATER QUALITY MONITOR FREQUENCY
DF-1 ¹	N. Krome Ave	25 54 35.831	80 28 06.935	1800	TZ	516-620, 1140-1230, 1700-1800	Maintained by SFWMD	
ENP-100 ¹	Everglades National Park	25 22 57.096	80 36 10.71	1333	620	620-1333	Maintained by USGS	
FKAA ¹	Florida City	25 26 36	80 30 31	1500	1067	880-1353	Maintained by FKAA	
FPL ¹	FPL Property	25 21 01.416	80 24 28.204	2304	TZ	1120-1330, 1535-1920, 2100-2304	Maintained by FPL	
NMB ¹	NMB	25 56 58.44	80 12 54.909	1900	1020		Maintained by NMB	
NDWWTP FA-3N	NDWWTP	25 55 05.037	80 08 49.465	1510	1410	1410-1510	Continuous	Monthly
SDWWTP FA-1	SDWWTP	25 33 04.976	80 20 49.073	1890	DZ	1890	Continuous	Monthly
ASR MW-1	WWF	25 42 01.374	80 28 29.193	1396	DZ	1396	Continuous	Monthly
SWWF MW-1	SWWF	25 69	80 39	1200	DZ	845-900, 1110-1200	Continuous	Monthly
CHI Monitoring Well	Miami-Dade SW 216th Street	25 33 52.88	80 21 22.07	1900	DZ	1000 - 1100, 1400-1500	Continuous	Monthly
Hialeah RO	Hialeah RO WTP	25 55 27.78	80 22 4.58	2260	DZ	1900 - 1950, 2190 - 2260	Continuous	Monthly

Highlighted wells proposed for MDWASD Floridan Aquifer monitoring network

1. Data for Wells from DBHydro, wells not in MDWASD network.

2. Feet Below Land Surface (bls)

TZ - tri-zone

DZ - dual zone

EXHIBIT 32B

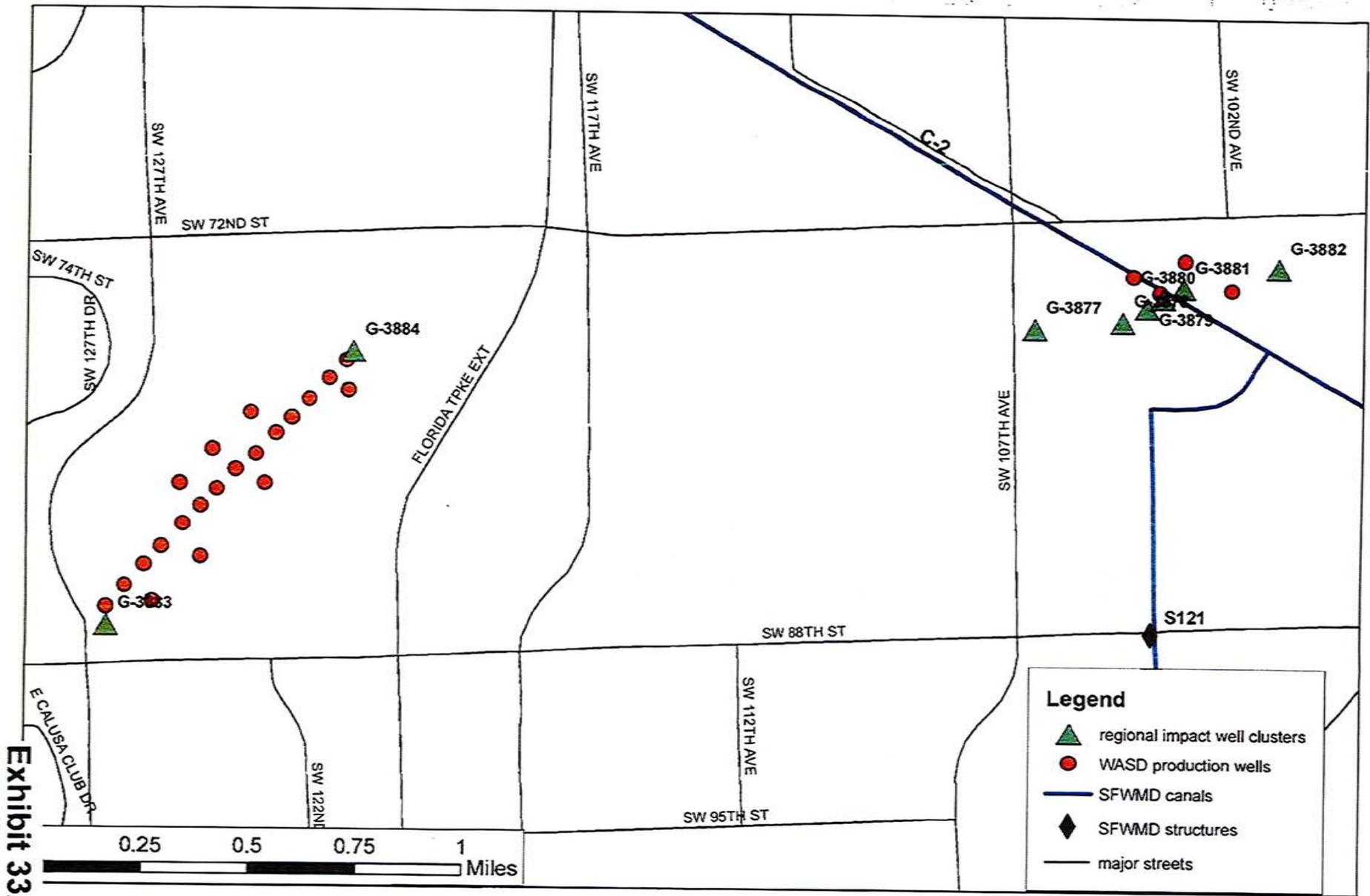


Exhibit 33A



Miami-Dade Water and Sewer Department
 3071 SW 38 Ave
 Miami FL 33146



Figure 12a. Regional Impact well Cluster locations: Southwest and Snapper Creek wellfields

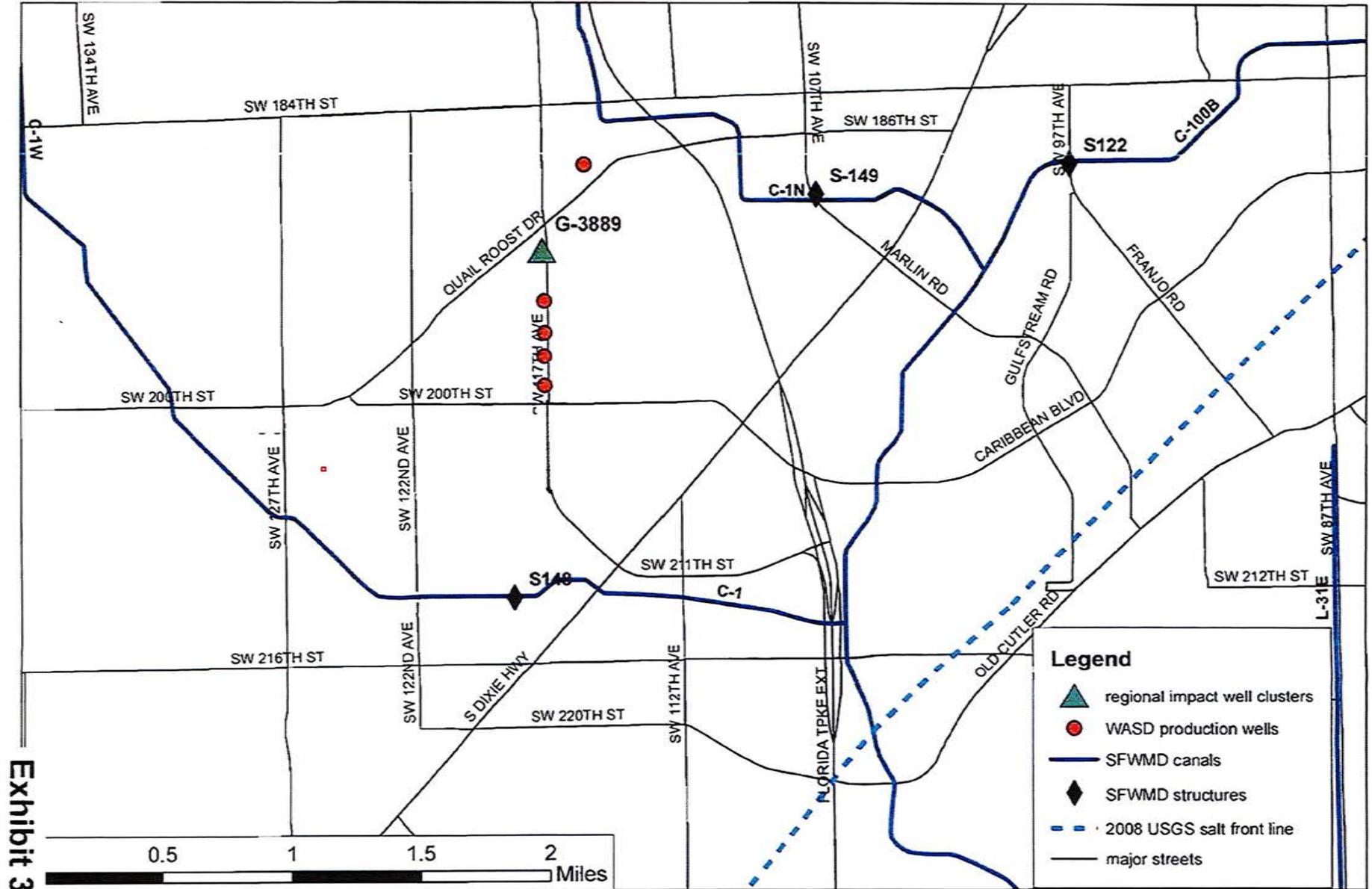


Exhibit 33B



Miami-Dade Water and Sewer Department
 3071 SW 38 Ave
 Miami FL 33146



Figure 12b. Regional Impact well Cluster locations:
 South Miami Heights wellfield

New Monitoring Well Completion Schedule

WELL ID	SITE USE	NETWORK	DATE WELL INSTALLATION COMPLETION	STATUS
SWWF-1/G-3897	Located near SWWF for water elevation well-wetland monitoring	WQ/WL	Mar-09	Completed
WWF-1N/G-3898	Located NE of West Wellfield for water elevation well-wetland monitoring	WQ/WL	Mar-09	Completed
SMH-1/G-3899	Located near South Miami Heights Wellfield for water elevation well	WQ/WL	Mar-09	Completed
Ever-1/G-3901	Located near Everglades Labor Camp Wellfield for water elevation well	WQ/WL	Mar-09	Completed
Newton-1/G-3900	Located near Newton Wellfield for water elevation well	WQ/WL	Mar-09	Completed
Hialeah RO	Located near new City of Hialeah RO Water Treatment Plant	Floridan monitoring	Based on City of Hialeah RO plant construction	Pending
G-3949	North Miami-Dade County near Broward line	Salt Monitoring	Sep-10	Completed
G-3948	North Miami-Dade County	Salt Monitoring	Sep-10	Completed
G-3947	North Miami-Dade County	Salt Monitoring	Jul-10	Completed
G-3888	City of Miami south of C-6 canal	Salt Monitoring	Oct-09	Completed
G-3887	Eastern Miami-Dade County/Pinecrest	Salt Monitoring	Sep-09	Completed
G-3886	Northeast of SMH Wellfield	Salt Monitoring	Oct-09	Completed
G-3885	South of SMH Wellfield	Salt Monitoring	Aug-09	Completed
G-3946	South Miami-Dade County Model Lands	Salt Monitoring	Jul-09	Completed
G-3877	Snapper Creek Wellfield	Regional Impact	Mar-10	Completed
G-3878	Snapper Creek Wellfield	Regional Impact	Mar-10	Completed
G-3879	Snapper Creek Wellfield	Regional Impact	Mar-10	Completed
G-3880	Snapper Creek Wellfield	Regional Impact	Mar-10	Completed
G-3881	Snapper Creek Wellfield	Regional Impact	Mar-10	Completed
G-3882	Snapper Creek Wellfield	Regional Impact	Mar-10	Completed
G-3889	Located midway between the Proposed SMH Wellfield and the Aquifer Recharge Project	Regional Impact	Mar-10	Completed
G-3884	Southwest Wellfield	Regional Impact	Mar-10	Completed
G-3883	Southwest Wellfield	Regional Impact	Mar-10	Completed
SMH RO	Located near South Miami Heights RO Water Treatment Plant	Floridan monitoring	2014	Pending

EXHIBIT 33C

Exhibit 33C

US Geological Survey Project Timeline
 QUANTIFICATION OF GROUND-WATER FLOWS IN SUPPORT OF SIMULATION OF SURFACE-
 AND GROUNDWATER FLOWS TO BISCAYNE AQUIFER, MIAMI-DADE COUNTY.

Updated 6/21/12

Task	FY08				FY09				FY10				FY11				FY12				FY13			
	ND	JFM	AMJ	JAS	OND	JFM	AMJ	JAS																
1. Test and select best flowmeter type suitable for deployment	XX	XXX	XXX	XXX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Drill coreholes, log, and construct monitor wells	-	-	-	-	XXX	XXX	XXX	XXX																
3. Construct DCPs and install Flowmeters	-	-	-	-	-	XXX	XXX	XXX	XXX	XXX	XXX	XXX												
4. Begin collection of WQ/WL data--	-	-	-	-	-	-	-	-	XXX	XXX	XXX	XXX												
5. Aquifer Step Testing-	-	-	-	-	-	-	-	-	-	-	-	-	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6. Real-time data collection and dissemination via website-	-	-	-	-	-	-	-	-	-	-	-	-	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
7. Report preparation and publish report	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

EXHIBIT 33D

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE U.S. DEPARTMENT OF INTERIOR,
THE GOVERNOR OF THE STATE OF FLORIDA,
THE SOUTH FLORIDA WATER MANAGEMENT
DISTRICT AND METROPOLITAN DADE COUNTY

This Memorandum of Understanding (hereinafter sometimes referred to as the "Agreement"), made and entered into this _____ day of _____ 1993, by and between the U.S. Department of the Interior, after called the "SECRETARY", the Governor of the State of Florida, hereinafter called the "GOVERNOR", the South Florida Water Management District, a public corporation of the State of Florida, hereinafter called the "DISTRICT", and Metropolitan Dade County, a political subdivision of the State of Florida, hereinafter referred to as the "COUNTY",

ARTICLE I. BACKGROUND AND OBJECTIVES

WHEREAS, the COUNTY proposes to construct a West Dade Wellfield, hereinafter referred to as the "Wellfield", and has applied to the DISTRICT for a Water Use permit (application #890731-12), requesting in said application to withdraw up to 40 million gallons per day from the Biscayne Aquifer and an allocation from the Floridan Aquifer System consistent with the Water Use permit, and

EXHIBIT 24

WHEREAS, the parties hereto desire to enter into this Agreement in order to provide adequate assurances that, in the event said Water Use permit is issued, withdrawals of water pursuant to said permit shall not cause adverse impacts to the hydrologic resources of the Everglades National Park, and

WHEREAS, the Everglades National Park Protection and Expansion Act of 1989, 16 U.S.C. secs. 410r-5 et seq., hereinafter referred to as the "Act" (Appendix "A"), provides that no Federal license, permit, approval, right of way or assistance shall be granted or issued with respect to the West Dade Wellfield (to be located in the Bird Drive Drainage Basin, as identified in the Comprehensive Development Master Plan for Dade County, Florida) until the SECRETARY, the Governor of the State of Florida, the South Florida Water Management District and Dade County, Florida enter into an agreement providing that any Water Use permit issued by the South Florida Water Management District for the Wellfield must include certain limiting conditions, which limiting conditions are included within this Agreement;

NOW THEREFORE, in consideration of the mutual covenants hereinafter set forth, the parties hereto agree as follows:

ARTICLE II. TERMS AND CONDITIONS

A. The foregoing recitals are true and correct and are incorporated herein by this reference.

B. Conditions to be Incorporated if Water Use Permit is Issued by DISTRICT.

(1) If the DISTRICT issues any Water Use permit for the Wellfield pursuant to Application #890731-12, the Wellfield's peak pumpage shall not exceed the forty (40) million gallons per day from the Biscayne Aquifer. The appropriate allocation from the Floridan Aquifer System will be addressed in the permit based on DISTRICT Water Use Criteria and demonstrated hydraulic characteristics of the Floridan Aquifer System.

(2) Notwithstanding anything to the contrary herein, if the DISTRICT issues any Water Use permit for the Wellfield, the withdrawals authorized by the permit shall be limited to an amount which meets the applicable water use permitting criteria of the DISTRICT in Chapter 373, Florida Statutes, and Chapter 40E-2, F.A.C., which criteria shall in no event be applied to permit an allocation of water which would allow water withdrawals or pumpage rates which exceed the limitations set forth in the Act;

(3) If the DISTRICT issues a Water Use permit for the Wellfield, the permit shall include the following additional

conditions regarding DISTRICT-declared water shortages:

(a) Reasonable, enforceable measures to limit demand on the Wellfield in times of water shortage, which shortage impacts the South Dade Water Use Basin, as defined in Chapter 40E-21, F.A.C., or the Everglades National Park, hereinafter called the "PARK". During such times of water shortage, the District has been authorized to declare areas of critical water supply pursuant to Chapter 373, Florida Statutes, and Chapter 40E-21, F.A.C.

(b) If, during times of a declared water shortage, the DISTRICT fails to limit demand on the Wellfield pursuant to Article II, Sec. B (3)(a) above, or if the DISTRICT limits demand on the Wellfield pursuant to Article II, Sec. B (3)(a) above, but the SECRETARY or the GOVERNOR certifies that operation of the Wellfield is still causing Adverse Impacts (see Article II, Sec. G herein) on the hydrologic resources of the PARK, as determined by the monitoring program described in Appendix "B", the GOVERNOR shall require the DISTRICT to take necessary actions to alleviate the Adverse Impacts, including temporary reduction or cessation in pumpage from the Biscayne Aquifer from the Wellfield, use of alternative sources of water from the Floridan Aquifer System or additional reductions in demand. This certificate issued

by the SECRETARY or the GOVERNOR shall specify what temporary corrective measures shall be required in the event of a disagreement regarding Adverse Impacts. In the event of such a disagreement, the COUNTY agrees to implement the corrective measures specified in the certificate pending outcome of the dispute resolution or correction of the Adverse Impacts, whichever occurs first. In the event that the COUNTY does not agree that Adverse Impacts have occurred in a particular case, the dispute mechanism set forth in Article II, Sec. D of this Agreement shall apply. The term "Adverse Impacts", as used herein, shall have the meaning set forth in Article II, Sec. G of this Agreement.

(c) Nothing herein shall be construed to limit the ability of the SECRETARY or the GOVERNOR to declare that Adverse Impacts to the hydrologic resources of the PARK have occurred when no water shortage has been declared by the DISTRICT.

C. The COUNTY agrees to comply with all conditions contained in any Water Use permit issued by the DISTRICT for the Wellfield.

D. The COUNTY agrees to operate the Wellfield in a manner which will not result in Adverse Impacts to hydrologic resources of

the PARK. Upon notification by the SECRETARY or the GOVERNOR of Adverse Impacts to PARK hydrologic resources pursuant to the protocol developed in accordance with Article II, Sec. G herein, the COUNTY shall take necessary actions to alleviate the Adverse Impacts, including temporary reduction or cessation in pumping from the Biscayne Aquifer from the Wellfield, use of alternative sources of water from the Floridan Aquifer System, or additional reductions in demand. In the event that the COUNTY does not agree that Adverse Impacts have occurred, the COUNTY shall only be required to implement the temporary corrective measures indicated in the certificate of Adverse Impacts pending resolution of the dispute pursuant to the dispute resolution procedure set forth in this Section. In the event of such a dispute, the COUNTY shall serve notice of the dispute upon the party which certified the Adverse Impacts. Upon notification of a dispute, the Key Officials indicated in Article IV, shall convene (by whatever communication device is expedient) within seventy-two (72) hours to determine whether Adverse Impacts have occurred. If the Key Officials substantiate that Adverse Impacts have occurred, they shall then decide what final action must be taken to alleviate the Adverse Impacts, and the COUNTY shall be required to take such action. If the Key Officials determine that Adverse Impacts have not occurred, the COUNTY shall not be required to continue corrective actions. If the Key Officials are unable to reach a unanimous resolution of the issue, then the decision of the SECRETARY shall be determinative.

E. If the DISTRICT issues a Water Use permit for the Wellfield, then, prior to the operation of the Wellfield, the COUNTY shall fund development of the following:

- (1) the plan entitled, "Hydrologic Monitoring Program for the West Dade Wellfield" (Appendix "B"); and
- (2) a stochastic hydrologic model (hereinafter "the model"), which model will be developed in cooperation with the DISTRICT and the PARK, and which will be used to develop an operation schedule for the Wellfield.

F. If the DISTRICT issues a Water Use permit for the Wellfield then, prior to the operation of the Wellfield, the COUNTY shall, with the cooperation of the PARK and the DISTRICT, implement the plan entitled, "Hydrologic Monitoring Program for the West Dade Wellfield" (Appendix "B"). The parties to this Agreement agree that this monitoring plan shall be implemented for a minimum of one (1) calendar year prior to operation of the Wellfield, in order to obtain a sufficient data base to allow for the calibration of the stochastic hydrologic model. All data, models and model output pertaining to the monitoring or determination of impacts related to the planning, development, implementation, or operation of the Wellfield shall be made available to all parties to this Agreement upon request.

G. Upon development and calibration of the model, the SECRETARY shall provide a protocol for timely notification to the GOVERNOR, the DISTRICT and the COUNTY when Adverse Impacts to the hydrologic resources of the PARK have occurred. The term "Adverse Impacts", for purposes of this Agreement, shall be defined as negative changes in water levels or flows in the L-31N canal and shall be equal to (a) specified hydrologic unit(s) of measurement which can reliably be detected by the monitoring network, and which can reasonably be linked by the model as being caused by the Wellfield. After collection of the base data as set forth in Article II, Sec. F herein, said unit(s) of measurement shall be determined by agreement of the parties hereto and incorporated as the standard(s) by which said "Adverse Impacts" shall be determined by inclusion in an appendix hereto (Appendix "C"), which appendix, upon approval of all parties to this Agreement, shall automatically be made a part of this Agreement without need for amendment hereto.

H. Nothing herein shall be construed to restrict the DISTRICT from exercising its authority under Chapter 373 of the Florida Statutes, or its implementing rules and permit conditions, to prevent or mitigate any adverse water resource impacts or impacts to existing legal uses and land uses.

I. Nothing herein shall be construed to restrict the COUNTY from applying for any other permit(s), or for modifications to any permit(s), if issued, provided, however, that this Agreement, unless amended, shall not pertain to any such application(s). If the COUNTY applies for a modification of (a) permit(s), or (an) additional permit(s) for this Wellfield, then this Agreement shall be modified, or a new agreement shall be entered into between the four parties hereto.

J. The DISTRICT agrees that it shall consider the feasibility of a water control structure on the C-4 canal (which structure would be located near the intersection of the C-4 Canal and the Dade-Kroward Levee) as part of the reevaluation of the Central and Southern Florida Flood Control Project or the first update of the Lower East Coast Regional Water Supply Plan.

K. Notwithstanding anything to the contrary herein, the DISTRICT does not warrant or guarantee in any way that it shall issue ANY Water Use permit to the COUNTY.

ARTICLE III. TERM OF AGREEMENTS; RENEWAL

A. Initial Term. This Agreement shall become effective upon the issuance of a Water Use permit for the Wellfield and shall have an initial term of fifty (50) years (which is the statutory

maximum period of time for which a consumptive use permit may be issued by the South Florida Water Management District) or that period of time during which the wellfield remains in operable condition, whichever is less.

B. Renewal Term. In the event that the initial term of this Agreement is fifty (50) years, this Agreement shall be automatically renewed for one (1) additional term of fifty (50) years, unless, prior to ninety (90) days before the expiration of said initial term, any of the parties to this Agreement notifies all other parties of its intent not to renew this Agreement.

C. Effect On Permit(s). Any permit issued by the DISTRICT shall be for the period of time which is stated in the permit, which time period need not coincide with the effective term of this Agreement. Similarly, the failure to renew this Agreement shall not affect the validity of any applicable Water Use permit(s) in existence at the time of said failure to renew.

ARTICLE IV. KEY OFFICIALS

The following key officials (the "Key Officials") are authorized to act on behalf of the parties hereto in all matters undertaken pursuant to the terms of this Agreement:

EXHIBIT 35E

THE U.S. DEPARTMENT OF INTERIOR: The Superintendent of the PARK, or authorized delegate, will provide review and approval of terms of all agreements, will be the authorized representative for service as required herein of all notices on the SECRETARY and participation in the dispute resolution mechanism set forth in Article II, Sec. D herein, and will exercise the authority to approve conduct of cooperative projects with regards to the conditions contained herein. The Assistant Director of the South Florida Research Center shall act as the authorized technical representative for the PARK with regard to the technical scope of this Agreement.

THE GOVERNOR OF THE STATE OF FLORIDA: The Secretary of the State of Florida Department of Environmental Protection (DEP), or authorized delegate, will provide review and approval of terms of all agreements, will be the authorized representative for service as required herein of all notices on the GOVERNOR and participation in the dispute resolution mechanism set forth in Article II, Sec. D herein, and will exercise the authority to approve conduct of cooperative projects with regards to the conditions contained herein. The Chief of the Bureau of Wetland Resource Management shall act as the authorized technical representative for DEP with regard to the technical scope of this Agreement.

THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT: The Executive Director, or authorized delegate, will provide review and approval of terms of all agreements, will be the authorized representative for service as required herein of all notices on the DISTRICT and participation in the dispute resolution mechanism set forth in Article II, Sec. D herein, and will exercise the authority to approve conduct of cooperative projects with regards to the conditions contained herein. The Director of the Water Use Division's Regulation Department shall act as the authorized technical representative for the DISTRICT with regard to the technical scope of this Agreement.

METROPOLITAN DADE COUNTY: The Director of the Miami Dade Water and Sewer Authority Department, or authorized delegate, will provide review and approval of terms of all agreements, will be the authorized representative for service as required herein of all notices on the COUNTY and participation in the dispute resolution mechanism set forth in Article II, Sec. D herein, and will exercise the authority to approve conduct of cooperative projects with regards to the conditions contained herein. The Director of DERM, or authorized delegate, shall act as the authorized technical representative for the COUNTY with regard to the technical scope of this Agreement.

Written notice shall be provided to all parties of any change in Key Officials within four (4) weeks of such change.

ARTICLE V. AMENDMENT

This Agreement may be modified by amendment upon mutual written agreement of all parties.

ARTICLE VI. NOTICES

All notices required or permitted to be given under the terms and provisions of this Agreement by a party to the other parties shall be in writing and shall be sent by registered or certified mail, return receipt requested, to the parties as follows:

Department of the Interior
Richard S. Ring, Superintendent (Attn: Robert F. Doran)
Everglades National Park
40001 State Road 9336
Homestead, FL 33034-6733

The Governor of the State of Florida
c/o Secretary of the Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Attn: Chief of the Bureau of Wetland Resource Management

South Florida Water Management District
c/o Executive Director
P.O. Box 24680
West Palm Beach, Florida 33416-4680

Metropolitan Dade County
c/o Director, Miami Dade Water and Sewer Dept.
P.O. Box 330316
Miami, Florida 33133

or to such other address as may hereafter be provided by the parties in writing. Notices by registered or certified mail shall be deemed received on the delivery date indicated by the U.S. Postal Service on the return receipt.

ARTICLE VII. VENUE

Any litigation hereunder shall be brought in the appropriate state or federal court in Dade County, Florida.

ARTICLE VIII. READINGS

Captions and headings in this Agreement are for ease of reference only and do not constitute a part of this Agreement and

shall not affect the meaning or interpretation of any provisions herein.

ARTICLE IX. RIGHTS OF OTHERS

Nothing in this Agreement express or implied is intended to confer upon any person other than the parties hereto any rights or remedies under or by reason of this Agreement.

ARTICLE X. WAIVER

There shall be no waiver of any right related to this Agreement unless in writing signed by the party waiving such right. No delay or failure to exercise a right under this Agreement shall impair such right or shall be construed to be a waiver thereof. Any waiver shall be limited to the particular right so waived and shall not be deemed a waiver of the same right at a later time, or of any other right under this Agreement.

ARTICLE XI. INVALIDITY OF PROVISIONS

The invalidity of one or more of the phrases, sentences, clauses, or Articles contained in this Agreement shall not affect the validity of the remaining portion of the Agreement, provided that the material purposes of this Agreement can be determined and effectuated.

ARTICLE XII. AUTHORITY OF PARTIES TO ENTER INTO AGREEMENT

A. Authority of the SECRETARY. The SECRETARY represents that (1) this Agreement has been duly authorized, executed and delivered by the Superintendent, Everglades National Park, pursuant to the authority vested in him by 16 U.S.C. secs. 1 and 1a-1 and 16 U.S.C. sec. 410r-6(i), as the duly authorized representative of the U.S. Department of the Interior for purposes of this Agreement, and (2) the U.S. Department of the Interior has the required power and authority to perform this Agreement.

B. Authority of the GOVERNOR. The GOVERNOR represents that (1) this Agreement has been duly authorized, executed and delivered by the Governor of the State of Florida, and (2) he has the required power and authority to perform this Agreement.

C. Authority of the DISTRICT. The DISTRICT represents that (1) this Agreement has been duly authorized, executed and delivered by the Governing Board of the South Florida Water Management District, and (2) it has the required power and authority to perform this Agreement.

D. Authority of the COUNTY. The COUNTY represents that (1) this Agreement has been duly authorized, executed and delivered by

the Board of County Commissioners as the governing body of the County, and (2) it had the required power and authority to perform this Agreement.

ARTICLE XIII. ALLOCATION OF NATIONAL PARK SERVICE FUNDS

Nothing in this Agreement shall be construed to require the National Park Service to expend funds that have not been lawfully appropriated and administratively allocated for such purposes.

ARTICLE XIV. NONDISCRIMINATION

During the performance of this Agreement, the participants agree to abide by the terms of Executive Order 11246 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin.

ARTICLE XV. CONGRESSIONAL PARTICIPATION RESTRICTION

No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Agreement if made with a

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corporation for its general benefit.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representative(s) on the latest day and year noted below.

WITNESSES:

WITNESSES:

WITNESSES:

Jim Bam
Assistant Secretary

ATTEST:

By: _____

Clerk

Approved as to form and legal sufficiency: _____

DEPARTMENT OF THE INTERIOR

By: _____
Superintendent
Everglades National Park

THE STATE OF FLORIDA

By: _____
Governor

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

By: W. J. ...
Chairman, Governing Board

METROPOLITAN DADE COUNTY

By: _____

County Manager



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Requirement by Permit Condition Report

App No: 140627-12

Permit No: 13-00017-W

Project Name: MIAMI-DADE CONSOLIDATED PWS

Permit Condition No: 10		Permit Condition Code: <u>WURWF009-1</u>		
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
PERMIT	Reclaimed water monthly pumpage for PERMIT	Monthly	Semi-Annually	31-AUG-2015
Permit Condition No: 12		Permit Condition Code: <u>WUSTD021-2</u>		
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - EVRGL 3	Calibration report for WELL EVRGL 3	Every Five Years	Every Five Years	31-MAR-2018
WELL - LC 2	Calibration report for WELL LC 2	Every Five Years	Every Five Years	31-MAR-2018
WELL - LC 3	Calibration report for WELL LC 3	Every Five Years	Every Five Years	31-MAR-2018
WELL - LC 4	Calibration report for WELL LC 4	Every Five Years	Every Five Years	31-MAR-2018
WELL - LC 5	Calibration report for WELL LC 5	Every Five Years	Every Five Years	31-MAR-2018
WELL - ET 1	Calibration report for WELL ET 1	Every Five Years	Every Five Years	31-MAR-2018
WELL - 4 Orr	Calibration report for WELL 4 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 5 Orr	Calibration report for WELL 5 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 6 Orr	Calibration report for WELL 6 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 7 Orr	Calibration report for WELL 7 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 8 Orr	Calibration report for WELL 8 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 9 Orr	Calibration report for WELL 9 Orr	Every Five Years	Every Five Years	30-MAY-2018
WELL - 10 Orr	Calibration report for WELL 10 Orr	Every Five Years	Every Five Years	30-MAY-2018
WELL - 11 SW	Calibration report for WELL 11 SW	Every Five Years	Every Five Years	28-FEB-2018
WELL - 12 SW	Calibration report for WELL 12 SW	Every Five Years	Every Five Years	28-FEB-2018
WELL - 13 SW	Calibration report for WELL 13 SW	Every Five Years	Every Five Years	28-FEB-2018
WELL - 1 Orr	Calibration report for WELL 1 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 2 Orr	Calibration report for WELL 2 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 3 Orr	Calibration report for WELL 3 Orr	Every Five Years	Every Five Years	28-FEB-2018
WELL - 14 SW	Calibration report for WELL 14 SW	Every Five Years	Every Five Years	28-FEB-2018
WELL - 15 SW	Calibration report for WELL 15 SW	Every Five Years	Every Five Years	31-MAR-2018
WELL - 16 SW	Calibration report for WELL 16 SW	Every Five Years	Every Five Years	31-MAR-2018
WELL - 17 SW	Calibration report for WELL 17 SW	Every Five Years	Every Five Years	31-MAR-2018
WELL - 18 SW	Calibration report for WELL 18 SW	Every Five Years	Every Five Years	31-MAR-2018
WELL - 19 SW	Calibration report for WELL 19 SW	Every Five Years	Every Five Years	31-MAR-2018
WELL - 20 SW	Calibration report for WELL 20 SW	Every Five Years	Every Five Years	30-APR-2018
WELL - 21 SC	Calibration report for WELL 21 SC	Every Five Years	Every Five Years	30-APR-2018
WELL - 22 SC	Calibration report for WELL 22 SC	Every Five Years	Every Five Years	30-APR-2018

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - 23 SC	Calibration report for WELL 23 SC	Every Five Years	Every Five Years	31-MAR-2018
WELL - 24 SC	Calibration report for WELL 24 SC	Every Five Years	Every Five Years	31-MAR-2018
WELL - 25 SW	Calibration report for WELL 25 SW	Every Five Years	Every Five Years	30-APR-2018
WELL - 26 SW	Calibration report for WELL 26 SW	Every Five Years	Every Five Years	30-APR-2018
WELL - 27 SW	Calibration report for WELL 27 SW	Every Five Years	Every Five Years	30-APR-2018
WELL - 28 SW	Calibration report for WELL 28 SW	Every Five Years	Every Five Years	30-APR-2018
WELL - 29 W	Calibration report for WELL 29 W	Every Five Years	Every Five Years	31-MAY-2018
WELL - 30 W	Calibration report for WELL 30 W	Every Five Years	Every Five Years	31-MAY-2018
WELL - 31 W	Calibration report for WELL 31 W	Every Five Years	Every Five Years	30-APR-2017
WELL - 34 SW	Calibration report for WELL 34 SW	Every Five Years	Every Five Years	30-APR-2017
WELL - 33 SW	Calibration report for WELL 33 SW	Every Five Years	Every Five Years	30-APR-2017
WELL - 32 SW	Calibration report for WELL 32 SW	Every Five Years	Every Five Years	30-APR-2017
WELL - ASR/Blending 1W	Calibration report for WELL ASR/Blending 1W	Every Five Years	Every Five Years	01-AUG-2017
WELL - ASR/Blending 3W	Calibration report for WELL ASR/Blending 3W	Every Five Years	Every Five Years	01-AUG-2017
WELL - ASR/Blending 2W	Calibration report for WELL ASR/Blending 2W	Every Five Years	Every Five Years	01-AUG-2017
WELL - ASR/Blending 4SW	Calibration report for WELL ASR/Blending 4SW	Every Five Years	Every Five Years	01-AUG-2017
WELL - ASR/Blending 5SW	Calibration report for WELL ASR/Blending 5SW	Every Five Years	Every Five Years	01-AUG-2017
WELL - NWTN 1	Calibration report for WELL NWTN 1	Every Five Years	Every Five Years	31-MAR-2018
WELL - NWTN 2	Calibration report for WELL NWTN 2	Every Five Years	Every Five Years	31-MAR-2018
WELL - NJ 1	Calibration report for WELL NJ 1	Every Five Years	Every Five Years	31-MAR-2018
WELL - 1 MS Lower	Calibration report for WELL 1 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 2 MS Lower	Calibration report for WELL 2 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 3 MS Lower	Calibration report for WELL 3 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 4 MS Lower	Calibration report for WELL 4 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 5 MS Lower	Calibration report for WELL 5 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 7 MS Lower	Calibration report for WELL 7 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 8 MS Lower	Calibration report for WELL 8 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 6 MS Lower	Calibration report for WELL 6 MS Lower	Every Five Years	Every Five Years	30-APR-2018
WELL - 9 MS Upper	Calibration report for WELL 9 MS	Every Five Years	Every Five Years	30-APR-2018

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - 23 MS Upper	Upper Calibration report for WELL 23 MS	Every Five Years	Every Five Years	30-APR-2018
WELL - 14 MS Upper	Upper Calibration report for WELL 14 MS	Every Five Years	Every Five Years	30-APR-2018
WELL - 15 MS Upper	Upper Calibration report for WELL 15 MS	Every Five Years	Every Five Years	31-MAY-2018
WELL - 16 MS Upper	Upper Calibration report for WELL 16 MS	Every Five Years	Every Five Years	31-MAY-2018
WELL - 17 MS Upper	Upper Calibration report for WELL 17 MS	Every Five Years	Every Five Years	30-APR-2018
WELL - 18 MS Upper	Upper Calibration report for WELL 18 MS	Every Five Years	Every Five Years	31-MAY-2018
WELL - 19 MS Upper	Upper Calibration report for WELL 19 MS	Every Five Years	Every Five Years	31-MAY-2018
WELL - 20 MS Upper	Upper Calibration report for WELL 20 MS	Every Five Years	Every Five Years	30-APR-2018
WELL - 21 MS Upper	Upper Calibration report for WELL 21 MS	Every Five Years	Every Five Years	30-APR-2018
WELL - 22 MS Upper	Upper Calibration report for WELL 22 MS	Every Five Years	Every Five Years	30-APR-2018
WELL - 10 MS Upper	Upper Calibration report for WELL 10 MS	Every Five Years	Every Five Years	30-APR-2018
WELL - 1 Preston	Calibration report for WELL 1 Preston	Every Five Years	Every Five Years	30-APR-2018
WELL - 2 Preston	Calibration report for WELL 2 Preston	Every Five Years	Every Five Years	30-APR-2018
WELL - 3 Preston	Calibration report for WELL 3 Preston	Every Five Years	Every Five Years	30-APR-2018
WELL - 4 Preston	Calibration report for WELL 4 Preston	Every Five Years	Every Five Years	30-APR-2018
WELL - 5 Preston	Calibration report for WELL 5 Preston	Every Five Years	Every Five Years	30-APR-2018
WELL - 6 Preston	Calibration report for WELL 6 Preston	Every Five Years	Every Five Years	30-APR-2018
WELL - 7 Preston	Calibration report for WELL 7 Preston	Every Five Years	Every Five Years	30-APR-2018
WELL - 11 Hialeah	Calibration report for WELL 11 Hialeah	Every Five Years	Every Five Years	30-APR-2018
WELL - 12 Hialeah	Calibration report for WELL 12 Hialeah	Every Five Years	Every Five Years	30-APR-2018
WELL - 13 Hialeah	Calibration report for WELL 13 Hialeah	Every Five Years	Every Five Years	30-APR-2018
WELL - 1 NWWF	Calibration report for WELL 1 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 2 NWWF	Calibration report for WELL 2 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 3 NWWF	Calibration report for WELL 3 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 4 NWWF	Calibration report for WELL 4 NWWF	Every Five Years	Every Five Years	30-APR-2018

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - 5 NWWF	Calibration report for WELL 5 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 6 NWWF	Calibration report for WELL 6 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 7 NWWF	Calibration report for WELL 7 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 8 NWWF	Calibration report for WELL 8 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 9 NWWF	Calibration report for WELL 9 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 10 NWWF	Calibration report for WELL 10 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 11 NWWF	Calibration report for WELL 11 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 12 NWWF	Calibration report for WELL 12 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 13 NWWF	Calibration report for WELL 13 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 14 NWWF	Calibration report for WELL 14 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - 15 NWWF	Calibration report for WELL 15 NWWF	Every Five Years	Every Five Years	30-APR-2018
WELL - EVRGL 1	Calibration report for WELL EVRGL 1	Every Five Years	Every Five Years	31-MAR-2018
WELL - EVRGL 2	Calibration report for WELL EVRGL 2	Every Five Years	Every Five Years	31-MAR-2018
WELL - ET 2	Calibration report for WELL ET 2	Every Five Years	Every Five Years	30-APR-2018
WELL - FP 1	Calibration report for WELL FP 1	Every Five Years	Every Five Years	31-AUG-2015
WELL - RHP 1	Calibration report for WELL RHP 1	Every Five Years	Every Five Years	31-AUG-2015
WELL - RHP 2	Calibration report for WELL RHP 2	Every Five Years	Every Five Years	31-AUG-2015
WELL - RHP 3	Calibration report for WELL RHP 3	Every Five Years	Every Five Years	31-AUG-2015
WELL - RHP 4	Calibration report for WELL RHP 4	Every Five Years	Every Five Years	31-AUG-2015
WELL - 1 Medley	Calibration report for WELL 1 Medley	Every Five Years	Every Five Years	31-JUL-2017
WELL - 2 Medley	Calibration report for WELL 2 Medley	Every Five Years	Every Five Years	31-MAY-2017
WELL - 5 Medley	Calibration report for WELL 5 Medley	Every Five Years	Every Five Years	31-JUL-2017
WELL - 6 Medley	Calibration report for WELL 6 Medley	Every Five Years	Every Five Years	31-MAY-2017
WELL - RO1 Hialeah	Calibration report for WELL RO1 Hialeah	Every Five Years	Every Five Years	30-APR-2018
WELL - RO2 Hialeah	Calibration report for WELL RO2 Hialeah	Every Five Years	Every Five Years	30-APR-2018
WELL - RO3 Hialeah	Calibration report for WELL RO3 Hialeah	Every Five Years	Every Five Years	30-APR-2018
WELL - RO4 Hialeah	Calibration report for WELL RO4	Every Five Years	Every Five Years	30-APR-2018

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - RO5 Hialeah	Hialeah Calibration report for WELL RO5	Every Five Years	Every Five Years	31-AUG-2015
WELL - RO6 Hialeah	Hialeah Calibration report for WELL RO6	Every Five Years	Every Five Years	31-AUG-2015
WELL - RO7 Hialeah	Hialeah Calibration report for WELL RO7	Every Five Years	Every Five Years	31-AUG-2015
WELL - RO8 Hialeah	Hialeah Calibration report for WELL RO8	Every Five Years	Every Five Years	31-AUG-2015
WELL - RO9 Hialeah	Hialeah Calibration report for WELL RO9	Every Five Years	Every Five Years	31-AUG-2015
WELL - RO10 Hialeah	Hialeah Calibration report for WELL RO10	Every Five Years	Every Five Years	30-APR-2018
WELL - RO11 Hialeah	Hialeah Calibration report for WELL RO11	Every Five Years	Every Five Years	30-APR-2018
WELL - RO12 Hialeah	Hialeah Calibration report for WELL RO12	Every Five Years	Every Five Years	31-AUG-2015
WELL - RO13 Hialeah	Hialeah Calibration report for WELL RO13	Every Five Years	Every Five Years	31-AUG-2015
WELL - RO14 Hialeah	Hialeah Calibration report for WELL RO14	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F1	Hialeah Calibration report for WELL SMH-F1	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F2	Calibration report for WELL SMH-F2	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F3	Calibration report for WELL SMH-F3	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F4	Calibration report for WELL SMH-F4	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F5	Calibration report for WELL SMH-F5	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F6	Calibration report for WELL SMH-F6	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F7	Calibration report for WELL SMH-F7	Every Five Years	Every Five Years	31-AUG-2015
WELL - SMH-F8	Calibration report for WELL SMH-F8	Every Five Years	Every Five Years	31-AUG-2015
Permit Condition No: 13	Permit Condition Code: <u>WUSTD022-1</u>			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - EVRGL 3	Monthly withdrawal for WELL EVRGL 3	Monthly	Semi-Annually	31-AUG-2015
WELL - LC 2	Monthly withdrawal for WELL LC 2	Monthly	Semi-Annually	31-AUG-2015
WELL - LC 3	Monthly withdrawal for WELL LC 3	Monthly	Semi-Annually	31-AUG-2015
WELL - LC 4	Monthly withdrawal for WELL LC 4	Monthly	Semi-Annually	31-AUG-2015
WELL - LC 5	Monthly withdrawal for WELL LC 5	Monthly	Semi-Annually	31-AUG-2015
WELL - ET 1	Monthly withdrawal for WELL ET 1	Monthly	Semi-Annually	31-AUG-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - 4 Orr	Monthly withdrawal for WELL 4 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 5 Orr	Monthly withdrawal for WELL 5 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 6 Orr	Monthly withdrawal for WELL 6 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 7 Orr	Monthly withdrawal for WELL 7 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 8 Orr	Monthly withdrawal for WELL 8 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 9 Orr	Monthly withdrawal for WELL 9 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 10 Orr	Monthly withdrawal for WELL 10 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 11 SW	Monthly withdrawal for WELL 11 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 12 SW	Monthly withdrawal for WELL 12 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 13 SW	Monthly withdrawal for WELL 13 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 1 Orr	Monthly withdrawal for WELL 1 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 2 Orr	Monthly withdrawal for WELL 2 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 3 Orr	Monthly withdrawal for WELL 3 Orr	Monthly	Semi-Annually	31-AUG-2015
WELL - 14 SW	Monthly withdrawal for WELL 14 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 15 SW	Monthly withdrawal for WELL 15 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 16 SW	Monthly withdrawal for WELL 16 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 17 SW	Monthly withdrawal for WELL 17 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 18 SW	Monthly withdrawal for WELL 18 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 19 SW	Monthly withdrawal for WELL 19 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 20 SW	Monthly withdrawal for WELL 20 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 21 SC	Monthly withdrawal for WELL 21 SC	Monthly	Semi-Annually	31-AUG-2015
WELL - 22 SC	Monthly withdrawal for WELL 22 SC	Monthly	Semi-Annually	31-AUG-2015
WELL - 23 SC	Monthly withdrawal for WELL 23 SC	Monthly	Semi-Annually	31-AUG-2015
WELL - 24 SC	Monthly withdrawal for WELL 24 SC	Monthly	Semi-Annually	31-AUG-2015
WELL - 25 SW	Monthly withdrawal for WELL 25 SW	Monthly	Semi-Annually	31-AUG-2015
WELL - 26 SW	Monthly withdrawal for WELL 26 SW	Monthly	Semi-Annually	31-AUG-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - 27 SW	SW Monthly withdrawal for WELL 27	Monthly	Semi-Annually	31-AUG-2015
WELL - 28 SW	SW Monthly withdrawal for WELL 28	Monthly	Semi-Annually	31-AUG-2015
WELL - 29 W	W Monthly withdrawal for WELL 29	Monthly	Semi-Annually	31-AUG-2015
WELL - 30 W	W Monthly withdrawal for WELL 30	Monthly	Semi-Annually	31-AUG-2015
WELL - 31 W	W Monthly withdrawal for WELL 31	Monthly	Semi-Annually	31-AUG-2015
WELL - 34 SW	SW Monthly withdrawal for WELL 34	Monthly	Semi-Annually	31-AUG-2015
WELL - 33 SW	SW Monthly withdrawal for WELL 33	Monthly	Semi-Annually	31-AUG-2015
WELL - 32 SW	SW Monthly withdrawal for WELL 32	Monthly	Semi-Annually	31-AUG-2015
WELL - ASR/Blending 1W	Monthly withdrawal for WELL ASR/Blending 1W	Monthly	Semi-Annually	31-AUG-2015
WELL - ASR/Blending 3W	Monthly withdrawal for WELL ASR/Blending 3W	Monthly	Semi-Annually	31-AUG-2015
WELL - ASR/Blending 2W	Monthly withdrawal for WELL ASR/Blending 2W	Monthly	Semi-Annually	31-AUG-2015
WELL - ASR/Blending 4SW	Monthly withdrawal for WELL ASR/Blending 4SW	Monthly	Semi-Annually	31-AUG-2015
WELL - ASR/Blending 5SW	Monthly withdrawal for WELL ASR/Blending 5SW	Monthly	Semi-Annually	31-AUG-2015
WELL - NWTN 1	Monthly withdrawal for WELL NWTN 1	Monthly	Semi-Annually	31-AUG-2015
WELL - NWTN 2	Monthly withdrawal for WELL NWTN 2	Monthly	Semi-Annually	31-AUG-2015
WELL - NJ 1	Monthly withdrawal for WELL NJ 1	Monthly	Semi-Annually	31-AUG-2015
WELL - 1 MS Lower	Monthly withdrawal for WELL 1 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 2 MS Lower	Monthly withdrawal for WELL 2 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 3 MS Lower	Monthly withdrawal for WELL 3 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 4 MS Lower	Monthly withdrawal for WELL 4 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 5 MS Lower	Monthly withdrawal for WELL 5 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 7 MS Lower	Monthly withdrawal for WELL 7 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 8 MS Lower	Monthly withdrawal for WELL 8 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 6 MS Lower	Monthly withdrawal for WELL 6 MS Lower	Monthly	Semi-Annually	31-AUG-2015
WELL - 9 MS Upper	Monthly withdrawal for WELL 9 MS Upper	Monthly	Semi-Annually	31-AUG-2015
WELL - 23 MS Upper	Monthly withdrawal for WELL 23 MS Upper	Monthly	Semi-Annually	31-AUG-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - 14 MS Upper	MS Upper Monthly withdrawal for WELL 14	Monthly	Semi-Annually	31-AUG-2015
WELL - 15 MS Upper	MS Upper Monthly withdrawal for WELL 15	Monthly	Semi-Annually	31-AUG-2015
WELL - 16 MS Upper	MS Upper Monthly withdrawal for WELL 16	Monthly	Semi-Annually	31-AUG-2015
WELL - 17 MS Upper	MS Upper Monthly withdrawal for WELL 17	Monthly	Semi-Annually	31-AUG-2015
WELL - 18 MS Upper	MS Upper Monthly withdrawal for WELL 18	Monthly	Semi-Annually	31-AUG-2015
WELL - 19 MS Upper	MS Upper Monthly withdrawal for WELL 19	Monthly	Semi-Annually	31-AUG-2015
WELL - 20 MS Upper	MS Upper Monthly withdrawal for WELL 20	Monthly	Semi-Annually	31-AUG-2015
WELL - 21 MS Upper	MS Upper Monthly withdrawal for WELL 21	Monthly	Semi-Annually	31-AUG-2015
WELL - 22 MS Upper	MS Upper Monthly withdrawal for WELL 22	Monthly	Semi-Annually	31-AUG-2015
WELL - 10 MS Upper	MS Upper Monthly withdrawal for WELL 10	Monthly	Semi-Annually	31-AUG-2015
WELL - 1 Preston	Monthly withdrawal for WELL 1 Preston	Monthly	Semi-Annually	31-AUG-2015
WELL - 2 Preston	Monthly withdrawal for WELL 2 Preston	Monthly	Semi-Annually	31-AUG-2015
WELL - 3 Preston	Monthly withdrawal for WELL 3 Preston	Monthly	Semi-Annually	31-AUG-2015
WELL - 4 Preston	Monthly withdrawal for WELL 4 Preston	Monthly	Semi-Annually	31-AUG-2015
WELL - 5 Preston	Monthly withdrawal for WELL 5 Preston	Monthly	Semi-Annually	31-AUG-2015
WELL - 6 Preston	Monthly withdrawal for WELL 6 Preston	Monthly	Semi-Annually	31-AUG-2015
WELL - 7 Preston	Monthly withdrawal for WELL 7 Preston	Monthly	Semi-Annually	31-AUG-2015
WELL - 11 Hialeah	Monthly withdrawal for WELL 11 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - 12 Hialeah	Monthly withdrawal for WELL 12 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - 13 Hialeah	Monthly withdrawal for WELL 13 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - 1 NWWF	Monthly withdrawal for WELL 1 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 2 NWWF	Monthly withdrawal for WELL 2 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 3 NWWF	Monthly withdrawal for WELL 3 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 4 NWWF	Monthly withdrawal for WELL 4 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 5 NWWF	Monthly withdrawal for WELL 5 NWWF	Monthly	Semi-Annually	31-AUG-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - 6 NWWF	Monthly withdrawal for WELL 6 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 7 NWWF	Monthly withdrawal for WELL 7 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 8 NWWF	Monthly withdrawal for WELL 8 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 9 NWWF	Monthly withdrawal for WELL 9 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 10 NWWF	Monthly withdrawal for WELL 10 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 11 NWWF	Monthly withdrawal for WELL 11 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 12 NWWF	Monthly withdrawal for WELL 12 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 13 NWWF	Monthly withdrawal for WELL 13 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 14 NWWF	Monthly withdrawal for WELL 14 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - 15 NWWF	Monthly withdrawal for WELL 15 NWWF	Monthly	Semi-Annually	31-AUG-2015
WELL - EVRGL 1	Monthly withdrawal for WELL EVRGL 1	Monthly	Semi-Annually	31-AUG-2015
WELL - EVRGL 2	Monthly withdrawal for WELL EVRGL 2	Monthly	Semi-Annually	31-AUG-2015
WELL - ET 2	Monthly withdrawal for WELL ET 2	Monthly	Semi-Annually	31-AUG-2015
WELL - FP 1	Monthly withdrawal for WELL FP 1	Monthly	Semi-Annually	31-AUG-2015
WELL - RHP 1	Monthly withdrawal for WELL RHP 1	Monthly	Semi-Annually	31-AUG-2015
WELL - RHP 2	Monthly withdrawal for WELL RHP 2	Monthly	Semi-Annually	31-AUG-2015
WELL - RHP 3	Monthly withdrawal for WELL RHP 3	Monthly	Semi-Annually	31-AUG-2015
WELL - RHP 4	Monthly withdrawal for WELL RHP 4	Monthly	Semi-Annually	31-AUG-2015
WELL - 1 Medley	Monthly withdrawal for WELL 1 Medley	Monthly	Semi-Annually	31-AUG-2015
WELL - 2 Medley	Monthly withdrawal for WELL 2 Medley	Monthly	Semi-Annually	31-AUG-2015
WELL - 5 Medley	Monthly withdrawal for WELL 5 Medley	Monthly	Semi-Annually	31-AUG-2015
WELL - 6 Medley	Monthly withdrawal for WELL 6 Medley	Monthly	Semi-Annually	31-AUG-2015
WELL - RO1 Hialeah	Monthly withdrawal for WELL RO1 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO2 Hialeah	Monthly withdrawal for WELL RO2 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO3 Hialeah	Monthly withdrawal for WELL RO3 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO4 Hialeah	Monthly withdrawal for WELL RO4 Hialeah	Monthly	Semi-Annually	31-AUG-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - RO5 Hialeah	Monthly withdrawal for WELL RO5 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO6 Hialeah	Monthly withdrawal for WELL RO6 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO7 Hialeah	Monthly withdrawal for WELL RO7 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO8 Hialeah	Monthly withdrawal for WELL RO8 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO9 Hialeah	Monthly withdrawal for WELL RO9 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO10 Hialeah	Monthly withdrawal for WELL RO10 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO11 Hialeah	Monthly withdrawal for WELL RO11 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO12 Hialeah	Monthly withdrawal for WELL RO12 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO13 Hialeah	Monthly withdrawal for WELL RO13 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - RO14 Hialeah	Monthly withdrawal for WELL RO14 Hialeah	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F1	Monthly withdrawal for WELL SMH-F1	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F2	Monthly withdrawal for WELL SMH-F2	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F3	Monthly withdrawal for WELL SMH-F3	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F4	Monthly withdrawal for WELL SMH-F4	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F5	Monthly withdrawal for WELL SMH-F5	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F6	Monthly withdrawal for WELL SMH-F6	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F7	Monthly withdrawal for WELL SMH-F7	Monthly	Semi-Annually	31-AUG-2015
WELL - SMH-F8	Monthly withdrawal for WELL SMH-F8	Monthly	Semi-Annually	31-AUG-2015
WELL - ASR/Blending 2W	ASR Injection for Well ASR 2W	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 2W	ASR Biscayne wd from ASR 2W	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 3W	ASR Injection for Well ASR 3W	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 3W	ASR Biscayne wd from ASR 3W	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 4SW	ASR Injection for Well ASR 4SW	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 4SW	ASR Biscayne wd from ASR 4SW	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 5SW	ASR Injection for Well ASR 5SW	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 5SW	ASR Biscayne wd from ASR 5SW	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 1W	ASR Biscayne wd from ASR 1W	Monthly	Quarterly	31-MAY-2015
WELL - ASR/Blending 1W	ASR Injection for Well ASR 1W	Monthly	Quarterly	31-MAY-2015

Requirement by Permit Condition Report

Permit Condition No:	Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
16					
	South Miami Heights	Raw Water Influent Report for South Miami Heights	Monthly	Semi-Annually	31-MAR-2015
	Hialeah/Preston WTP	Raw Water Influent Report for Hialeah/Preston WTP	Monthly	Semi-Annually	31-MAR-2015
	Alexander Orr WTP	Raw Water Influent Report for Alexander Orr WTP	Monthly	Semi-Annually	31-MAR-2015
	Hialeah RO WTP	Raw Water Influent Report for Hialeah RO WTP	Monthly	Semi-Annually	31-MAR-2015
17					
	PERMIT	Water Conservation Plan annual report	Yearly	Yearly	01-MAY-2015
18					
	PERMIT	Bulk water delivered to PERMIT	Monthly	Semi-Annually	31-AUG-2015
20					
	PERMIT	Unaccounted for Distribution Losses for PERMIT	Yearly	Yearly	01-MAY-2015
	PERMIT	Annual Water Savings Activities Status Update (Reduction Plan)	Yearly	Yearly	01-MAY-2015
21					
	PERMIT	Annual reclaimed water report for PERMIT	Yearly	Yearly	01-MAY-2015
22					
	South Miami Heights	Treated Water Outflow Report for South Miami Heights	Monthly	Semi-Annually	31-MAY-2015
	Hialeah/Preston WTP	Treated Water Outflow Report for Hialeah/Preston WTP	Monthly	Semi-Annually	31-MAY-2015
	Alexander Orr WTP	Treated Water Outflow Report for Alexander Orr WTP	Monthly	Semi-Annually	31-MAY-2015
	Hialeah RO WTP	Treated Water Outflow Report for Hialeah RO WTP	Monthly	Semi-Annually	31-MAY-2015
23					
	PERMIT	Ten-Year Compliance Report for PERMIT	Every Ten Years	Every Ten Years	16-JUL-2022
24					
	PERMIT	ASR Operations Report for PERMIT	Yearly	Yearly	01-MAY-2015
25					
	WELL - FP 1	Updated Table A for WELL FP 1	One time Only	One time Only	01-SEP-2015
	WELL - RHP 1	Updated Table A for WELL RHP 1	One time Only	One time Only	01-SEP-2015
	WELL - RHP 3	Updated Table A for WELL RHP 3	One time Only	One time Only	01-SEP-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - RHP 4	Updated Table A for WELL RHP 4	One time Only	One time Only	01-SEP-2015
WELL - RO8 Hialeah	Updated Table A for WELL RO8 Hialeah	One time Only	One time Only	01-SEP-2015
WELL - RO9 Hialeah	Updated Table A for WELL RO9 Hialeah	One time Only	One time Only	01-SEP-2015
WELL - RO10 Hialeah	Updated Table A for WELL RO10 Hialeah	One time Only	One time Only	01-SEP-2015
WELL - RO11 Hialeah	Updated Table A for WELL RO11 Hialeah	One time Only	One time Only	01-SEP-2015
WELL - RO12 Hialeah	Updated Table A for WELL RO12 Hialeah	One time Only	One time Only	01-SEP-2015
WELL - RO13 Hialeah	Updated Table A for WELL RO13 Hialeah	One time Only	One time Only	01-SEP-2015
WELL - RO14 Hialeah	Updated Table A for WELL RO14 Hialeah	One time Only	One time Only	01-SEP-2015
WELL - SMH-F1	Updated Table A for WELL SMH-F1	One time Only	One time Only	01-SEP-2015
WELL - SMH-F2	Updated Table A for WELL SMH-F2	One time Only	One time Only	01-SEP-2015
WELL - SMH-F3	Updated Table A for WELL SMH-F3	One time Only	One time Only	01-SEP-2015
WELL - SMH-F4	Updated Table A for WELL SMH-F4	One time Only	One time Only	01-SEP-2015
WELL - SMH-F5	Updated Table A for WELL SMH-F5	One time Only	One time Only	01-SEP-2015
WELL - SMH-F6	Updated Table A for WELL SMH-F6	One time Only	One time Only	01-SEP-2015
WELL - RHP 2	Updated Table A (Well) for Well RHP 2	One time Only	One time Only	01-SEP-2015
Permit Condition No: 26	Permit Condition Code: <u>WUZZUD002-2</u>			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
PERMIT	L30 Canal Operation monthly flows	Monthly	Semi-Annually	31-AUG-2015
PERMIT	Mid Canal Operation monthly flows	Monthly	Semi-Annually	31-AUG-2015
Permit Condition No: 36	Permit Condition Code: <u>WUZZUD001</u>			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - G-551	Ground water level for WELL G-551	Monthly	Quarterly	31-MAY-2015
WELL - G-1074B	Ground water level for WELL G-1074B	Monthly	Quarterly	31-MAY-2015
WELL - G-3555	Ground water level for WELL G-3555	Monthly	Quarterly	31-MAY-2015
WELL - G-3563	Ground water level for WELL G-3563	Monthly	Quarterly	31-MAY-2015
WELL - G-3565	Ground water level for WELL G-3565	Monthly	Quarterly	31-MAY-2015
WELL - AO-6N	Ground water level for WELL AO-6N	Every Four months	Every Four months	31-MAY-2015
WELL - AO-8C	Ground water level for WELL AO-8C	Every Four months	Every Four months	31-MAY-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - SC-6N	Ground water level for WELL SC-6N	Every Four months	Every Four months	31-MAY-2015
WELL - SW-7W	Ground water level for WELL SW-7W	Every Four months	Every Four months	31-MAY-2015
WELL - G-3551	Ground water level for WELL G-3551	Monthly	Quarterly	31-MAY-2015
WELL - G-3553	Ground water level for WELL G-3553	Monthly	Quarterly	31-MAY-2015
WELL - G-3554	Ground water level for WELL G-3554	Monthly	Quarterly	31-MAY-2015
WELL - G-3556	Ground water level for WELL G-3556	Monthly	Quarterly	31-MAY-2015
WELL - G-3577	Ground water level for WELL G-3577	Monthly	Quarterly	31-MAY-2015
WELL - WWF-21S	Ground water level for WELL WWF-21S	Every Four months	Every Four months	31-MAY-2015
WELL - WWF-755	Ground water level for WELL WWF-755	Every Four months	Every Four months	31-MAY-2015
WELL - G-3253	Ground water level for WELL G-3253	Monthly	Quarterly	31-MAY-2015
WELL - G-3259A	Ground water level for WELL G-3259A	Monthly	Quarterly	31-MAY-2015
WELL - G-3567	Ground water level for WELL G-3567	Monthly	Quarterly	31-MAY-2015
WELL - G-3676	Ground water level for WELL G-3676	Monthly	Quarterly	31-MAY-2015
WELL - G-3818	Ground water level for WELL G-3818	Monthly	Quarterly	31-MAY-2015
WELL - NW-8D	Ground water level for WELL NW-8D	Every Four months	Every Four months	31-MAY-2015
WELL - NW-6F	Ground water level for WELL NW-6F	Every Four months	Every Four months	31-MAY-2015
WELL - WASD-1C	Ground water level for WELL WASD-1C	Every Four months	Every Four months	31-MAY-2015
WELL - G-3760	Ground water level for WELL G-3760	Monthly	Quarterly	31-MAY-2015
WELL - NW-19C	Ground water level for WELL NW-19C	Every Four months	Every Four months	31-MAY-2015
WELL - G-3897	Ground water level for WELL G-3897	Monthly	Quarterly	31-MAY-2015
WELL - G-3898	Ground water level for WELL G-3898	Monthly	Quarterly	31-MAY-2015
WELL - G-3899	Ground water level for WELL G-3899	Monthly	Quarterly	31-MAY-2015
WELL - G-3901	Ground water level for WELL G-3901	Monthly	Quarterly	31-MAY-2015
WELL - G-3900	Ground water level for WELL G-3900	Monthly	Quarterly	31-MAY-2015
WELL - G-3761	Ground water level for WELL G-3761	Monthly	Quarterly	31-MAY-2015
WELL - G-553	Ground water level for WELL G-	Monthly	Quarterly	31-MAY-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
	553			
WELL - SW-2W	Ground water level for WELL SW-2W	Every Four months	Every Four months	31-MAY-2015
WELL - G-1488	Ground water level for WELL G-1488	Monthly	Quarterly	31-MAY-2015
WELL - SMH-F3	Ground water level for SMH-F3	Monthly	Quarterly	31-MAY-2015
WELL - G-3913	Ground water level for WELL G-3913	Monthly	Quarterly	31-MAY-2015
WELL - NW-3AR (replaces NW-3A)	Ground Water Level for Well NW-3AR (replaces NW-3A)	Every Four months	Every Four months	31-MAY-2015
Permit Condition No: 37		Permit Condition Code:	<u>WUZZUD001</u>	
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - F-45	Chloride for WELL F-45	Monthly	Quarterly	31-MAY-2015
WELL - G-1180	Chloride for WELL G-1180	Monthly	Quarterly	31-MAY-2015
WELL - G-1351	Chloride for WELL G-1351	Monthly	Quarterly	31-MAY-2015
WELL - G-1354	Chloride for WELL G-1354	Monthly	Quarterly	31-MAY-2015
WELL - G-3162	Chloride for WELL G-3162	Monthly	Quarterly	31-MAY-2015
WELL - G-3229	Chloride for WELL G-3229	Monthly	Quarterly	31-MAY-2015
WELL - G-3250	Chloride for WELL G-3250	Monthly	Quarterly	31-MAY-2015
WELL - G-894	Chloride for WELL G-894	Monthly	Quarterly	31-MAY-2015
WELL - G-896	Chloride for WELL G-896	Monthly	Quarterly	31-MAY-2015
WELL - G-3313E	Chloride for WELL G-3313E	Monthly	Quarterly	31-MAY-2015
WELL - G-3224	Chloride for WELL G-3224	Monthly	Quarterly	31-MAY-2015
WELL - G-1009B	Chloride for WELL G-1009B	Monthly	Quarterly	31-MAY-2015
WELL - FA-3N NDWWTP	Chloride for WELL FA-3N NDWWTP	Monthly	Quarterly	31-MAY-2015
WELL - FA-1 (Replaces FA-5)	Chloride for WELL FA-1	Monthly	Quarterly	31-MAY-2015
WELL - ASR MW-1 (WEST)	Chloride for WELL ASR MW-1 (WEST)	Monthly	Quarterly	31-MAY-2015
WELL - ASR MW-1 (SW)	Chloride for WELL ASR MW-1 (SW)	Monthly	Quarterly	31-MAY-2015
WELL - CHI SDWWTP	Chloride for WELL CHI SDWWTP	Monthly	Quarterly	31-MAY-2015
WELL - G-3313C	Chloride for WELL G-3313C	Monthly	Quarterly	31-MAY-2015
WELL - G-939	Chloride for WELL G-939	Monthly	Quarterly	31-MAY-2015
WELL - G-901	Chloride for WELL G-901	Monthly	Quarterly	31-MAY-2015
WELL - G-571	Chloride for WELL G-571	Monthly	Quarterly	31-MAY-2015
WELL - G-548	Chloride for WELL G-548	Monthly	Quarterly	31-MAY-2015
WELL - G-432	Chloride for WELL G-432	Monthly	Quarterly	31-MAY-2015
WELL - G-354	Chloride for WELL G-354	Monthly	Quarterly	31-MAY-2015
WELL - F-279	Chloride for WELL F-279	Monthly	Quarterly	31-MAY-2015
WELL - G-3885	Chloride for WELL G-3885	Monthly	Quarterly	31-MAY-2015
WELL - G-3886	Chloride for WELL G-3886	Monthly	Quarterly	31-MAY-2015
WELL - G-3887	Chloride for WELL G-3887	Monthly	Quarterly	31-MAY-2015
WELL - G-3888	Chloride for WELL G-3888	Monthly	Quarterly	31-MAY-2015
WELL - G-3946	Chloride for WELL G-3946	Monthly	Quarterly	31-MAY-2015
WELL - G-3947	Chloride for WELL G-3947	Monthly	Quarterly	31-MAY-2015

Requirement by Permit Condition Report

Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
WELL - G-3948	Chloride for WELL G-3948	Monthly	Quarterly	31-MAY-2015
WELL - G-3949	Chloride for WELL G-3949	Monthly	Quarterly	31-MAY-2015
WELL - SMH-F3	Chloride for WELL SMH-F3	Monthly	Quarterly	31-MAY-2015
PERMIT	Annual Water Quality Summary Report	Yearly	Yearly	29-FEB-2016
WELL - RO1 Hialeah	Chloride for WELL RO1 Hialeah (use this well instead of RO7 Feb 2014)	Monthly	Quarterly	31-MAY-2015
Permit Condition No: 38	Permit Condition Code: <u>WUZZUD001-2</u>			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
PERMIT	Large User Agreement with Hialeah	One time Only	One time Only	01-SEP-2015
Permit Condition No: 39	Permit Condition Code: <u>WUZZUD001-3</u>			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
PERMIT	Reuse Information Update	Yearly	Yearly	30-APR-2015
Permit Condition No: 42	Permit Condition Code: <u>WUZZUD004-1</u>			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date
PERMIT	Alternate Reuse project proposal- if feasibility agreement was not made	One time Only	One time Only	01-MAY-2015
PERMIT	BBCW Reuse Project Water Quality Required & feasibility determination	One time Only	One time Only	01-MAY-2015

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OTHER INTERESTED PARTIES

- X Audubon of Florida
- X Marcy I. LaHart
- X Miccosukee Tribe
- X Natural Resources Defense Council

Exhibit No:37