



Carlos Alvarez, Mayor

December 14, 2007

CERTIFIED: 7004 1680 0004 5544 0874

- ADA Coordination
- Agenda Coordination
- Animal Services
- Art in Public Places
- Audit and Management Services
- Aviation
- Building
- Building Code Compliance
- Business Development
- Capital Improvements
- Citizens' Independent Transportation Trust
- Commission on Ethics and Public Trust
- Communications
- Community Action Agency
- Community & Economic Development
- Community Relations
- Consumer Services
- Corrections & Rehabilitation
- Cultural Affairs
- Elections
- Emergency Management
- Employee Relations
- Empowerment Trust
- Enterprise Technology Services
- Environmental Resources Management
- Fair Employment Practices
- Finance
- Fire Rescue
- General Services Administration
- Government Information Center
- Historic Preservation
- Homeless Trust
- Housing Agency
- Housing Finance Authority
- Human Services
- Independent Review Panel
- International Trade Consortium
- Juvenile Services
- Medical Examiner
- Metro-Miami Action Plan
- Metropolitan Planning Organization
- Park and Recreation
- Planning and Zoning
- Police
- Procurement Management
- Property Appraisal
- Public Library System
- Public Works
- Safe Neighborhood Parks
- Seaport
- Solid Waste Management
- Strategic Business Management
- Team Metro
- Transit
- Task Force on Urban Economic Revitalization
- Vizcaya Museum And Gardens
- Water & Sewer**

Ms. Shanin Speas-Frost, P.E.  
DEP Reuse Coordinator  
Mail Station 3540  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

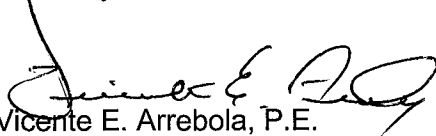
Re: Miami-Dade Water and Sewer Department  
Central District Wastewater Treatment Plant, Permit No. FLA 024805-002  
Annual Reuse Report

Dear Ms. Speas-Frost:

Attached, please find the referenced Annual Reuse Report for the fiscal year ending September 30, 2007, submitted in accordance with Rule 62-610.870, F.A.C.

Please contact me at (786) 552-8116 or Mr. Richard O'Rourke P.E. at (786) 552-8123 if you require any additional information.

Sincerely,

  
Vicente E. Arrebola, P.E.  
Assistant Director, Wastewater

VEA/RMO/mc

c: Todd R. Brown, FDEP/WPB  
Scott Burns, SFWMD

Attachment: Central District Wastewater Treatment Plant, 2006/2007  
Annual Reuse Report

*Delivering Excellence Every Day*

L07245FDEP-CD-Reuse

Ms. Shanin Speas-Frost, P.E. - DEP Reuse Coordinator

December 14, 2007

Central District Wastewater Treatment Plant, Permit No. FLA 024805-002 Annual Reuse Report

bc: J. Renfrow  
J. Ruiz  
L. Yoder  
B. Goldenberg  
J. Mazzaresse  
S. Negahban  
R. O'Rourke  
T. Maxwell



# Florida Department of Environmental Protection

Twin Towers Office Bldg., 2600 Blair Stone Road, Tallahassee, Florida 32399-2400

## ANNUAL REUSE REPORT

### Part I - Instructions

1. This form is to be submitted on or before January 1 following the completion of each fiscal year (October 1 through September 30). Submittal is required by Rule 62-610.870, F.A.C. This report will be used to develop and maintain a reuse inventory. It will not be used for determination of compliance with permit limitations, other than requirements to submit this report. If flow monitoring information is not available for individual reuse types or types of users, please provide your best estimates of flows allocated to individual reuse types or types of users.
2. Submit one copy (including all attachments) to each of the following three addresses:
  - a. DEP Water Reuse Coordinator  
Mail Station 3540  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400
  - b. The appropriate DEP district office (attention Domestic Wastewater Program).
  - c. The appropriate water management district.
3. Please type or print legibly. Submit all pages of this form.
4. Completion of this report is required for all domestic wastewater facilities having permitted capacities of 0.1 mgd or larger which contribute reclaimed water to one or more reuse systems permitted under Chapter 62-610, F.A.C. This form is to be completed annually for each separate reuse system. For purposes of this form, "reuse system" means a network of pipes, pumping facilities, storage facilities, and appurtenances designed to convey and distribute reclaimed water from one or more domestic wastewater treatment facilities to one or more users of reclaimed water.
5. Use the units specified in the form. For flows, show annual average flows (in mgd). This can be obtained by averaging daily flows over a 365-day period, dividing the total annual volume by 365, or by averaging the 12 monthly average flow values.
6. Be sure to submit the required attachments (see Part X on pages 8 and 9 of this form).
7. The cover sheet of your permit will identify portions of your project classified as "reuse" and portions classified as "effluent disposal." Rule 62-610.810, F.A.C., lists the criteria for classifying projects (or portions of projects) as "reuse" or "effluent disposal."

**Part II - General Information**

1. Reporting Period: October 1, 2006 through September 30, 2007

2. Date Submitted December 14, 2007

3. Person Completing This Form

Name Mario J. Campa

Title Engineer 1

Organization Miami-Dade Water and Sewer Department

Mailing Address PO Box 330316

City/State/Zip Code Miami, FL 33233-0316

Telephone ( 786 ) 552-8125

E-mail mjcamp@miamidade.gov

4. Reuse System Name Central District Wastewater Treatment Plant / In-Plant Reuse System

5. Domestic Wastewater Treatment Facilities Providing Reclaimed Water to This Reuse System

a. Location of Facilities

City Miami County Miami-Dade

DEP District (check one):

- Northwest (Pensacola)
- Northeast (Jacksonville)
- Southwest (Tampa)
- Central (Orlando)
- Southeast (West Palm Beach)
- South (Ft. Myers)

Water Management District (check one):

- Northwest Florida (Havana)
- Suwannee River (Live Oak)
- Southwest Florida (Brooksville)
- St. Johns River (Palatka)
- South Florida (West Palm Beach)

b. Domestic Wastewater Treatment Facility Information

Enter the name of the facility, the DEP identification number, disinfection level,<sup>a</sup> permitted capacity, and annual average flow for each treatment facility providing reclaimed water to this reuse system.

Facility Name	DEP Identification Number	Disinfection Level <sup>a</sup>	Permitted Capacity (mgd)	Average Flow (mgd)
Central District WWTP	5013M00797	HB*	143	111.9
<b>Total Treated Wastewater</b>			143.00	111.90

<sup>a</sup> Enter one of the following codes for disinfection level for each treatment facility:

- HI = High-level disinfection, as described in Rule 62-600.440(5), F.A.C.
- IM = Intermediate disinfection, as described in Rule 62-600.440(6), F.A.C.
- BA = Basic disinfection, as described in Rule 62-600.440(4), F.A.C.
- LL = Low-level disinfection, as described in Rule 62-600.440(7), F.A.C.
- HB = High-level disinfection & basic disinfection for portions of the treated flow.
- FT = Full treatment disinfection, as described in Rule 62-610.563(3)(b), F.A.C.

\*High-level disinfection for CDWWTP/On-site Reuse System only.

**Part III - Reclaimed Water and/or Effluent Available for Reuse or Disposal**

Source of Water	Average Flow (mgd)
<b>Treated Wastewater</b> [Enter the total from bottom of table in Part II]	111.90
<b>Supplemental Water Supplies</b> (Enter the flow for each supplemental water source added by the utility)	
Surface Water	0
Stormwater	0
Ground Water	0
Drinking Water	0
<b>Demineralization Concentrate</b> (Blended with final reclaimed water only)	0
<b>Water Recovered from ASR</b> <sup>b</sup>	0
<b>Total Water Available for Reuse or Disposal</b> [Should equal the total in Part VI of this form]	111.90

<sup>b</sup> Aquifer Storage and Recovery (ASR) - This activity is described in Rule 62-610.466, F.A.C. If you have an ASR system included in your permit for the reuse system, please make separate entries in both Part III (for the total average flow withdrawn from the ASR well) and in Part VI (for the total average flow injected into the ASR well).

Note: Average Flow is amount of effluent available for reuse. Permitted capacity is based on effluent discharged.

### Part IV - Reuse

For each reuse activity, enter the permitted capacity, average flows, and acreage. Do not duplicate any of these entries in Part V of this form. Using available flow records, other available information, and your best judgment, please allocate the average flows for all treatment facilities among the reuse types listed in this part. Make discrete entries (do not show ranges). Show totals at the bottom of the table.

Reuse Type	Reuse Sub-Type	Part	Capacity (mgd)	Flow (mgd)	Area (acres)
<b>Public Access Areas &amp; Landscape Irrigation</b>	Golf Course Irrigation	III			
	Residential Irrigation	III			
	Other Public Access Areas	III			
<b>Agricultural Irrigation &amp; Sprayfields</b>	Edible Crops (Be sure to attach the inventory of edible crop irrigation. See Part X of this form.)	III			
	Grass, Pasture, Other Crops	II			
<b>Ground Water Recharge &amp; Indirect Potable Reuse</b>	Rapid Infiltration Basins (Including Some Perc Ponds) <sup>c</sup>	IV			
	Absorption Fields <sup>c</sup>	IV			
	Surface Water Augmentation (Discharge to Class I Waters)	V			
	Injection to Potable Aquifers	V			
<b>Industrial</b>	At Treatment Plant	VII	7.84 Est.	4.99	
	At Other Facilities	VII			
<b>Toilet Flushing</b>		III			
<b>Fire Protection</b>		III			
<b>Wetlands</b>					
<b>Other (Specify)</b>	At treatment plant (On-site)		0.038	0.14	
<b>Total Reuse</b> [Enter total flow on Line 1 in Part VI of this form.]			7.878 est.	5.130	

<sup>c</sup> To be considered "reuse," either of the following conditions must exist:

- \* There are multiple basins or absorption fields that are routinely wetted, dried, and maintained in accord with Part IV of Chapter 62-610, F.A.C., or

- \* Continuously-loaded ponds must meet the higher treatment/disinfection requirements in Rule 62-610.525, F.A.C.

If neither condition is met, the perc pond or absorption field is "effluent disposal" and should be recorded in Part V in this form (under "Other").

### Part V - Effluent Disposal

For each effluent disposal activity, enter the permitted capacity and average flow. Do not duplicate any of these entries in Part IV of this form. Using available flow records, other available information, and your best judgment, please allocate the average flows for all treatment facilities among the effluent disposal types listed in this part. Make discrete entries (do not show ranges) for capacity and flow. Show totals at the bottom of the table.

Disposal Type	Disposal Sub-Type	Permitted Capacity (mgd)	Average Flow (mgd)
<b>Surface Water Discharges</b>	Ocean Outfall	143	110.9
	To Coastal or Estuarine Waters		
	To Wetlands		
	To Other Surface Waters		
<b>Deep Well Disposal</b>		0	0
<b>Other (specify)</b>			
<b>Total Flow Disposed</b> [Enter total flow on Line 2 in Part VI of this form.]		143.00	110.90

**Part VI - Summary of Reuse and Disposal**

Reuse or Disposal Activity	Average Flow (mgd)
<b>1. Reuse</b> (From bottom of Part IV of this form)	5.13
<b>2. Effluent Disposal</b> (From bottom of Part V)	110.9
<b>3. Flow Stored in ASR</b> (See note <sup>b</sup> on ASR in Part III.)	0
<b>Total</b> (Should equal the total in Part III of this form.) <sup>d</sup>	116.03

<sup>d</sup> The totals in Parts III and VI will not be equal if one of the following conditions exists (check as appropriate):

- The reuse system includes an ASR system and the amounts injected and withdrawn during the year differ.
- The reuse system includes one or more reuse activities in which reclaimed water is returned to the treatment facility after its use, where it is then available for reuse or disposal.

Effluent flow is metered after it feeds the reuse system.

**Part VII – Reuse Activities, Numbers of Customers, and Backup Discharges**

1. How many single-family residences have reclaimed water service? None
2. How many golf courses are irrigated using reclaimed water? None
3. How many parks or playgrounds are irrigated using reclaimed water? None
4. How many schools are irrigated using reclaimed water? None
5. Is reclaimed water used to flush toilets?  Yes  No If yes, list locations where reclaimed water is used for toilet flushing. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Is reclaimed water used for fire protection?  No  Yes, in sprinkler systems  
 Yes, in fire hydrants  Yes, other (please describe) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. How many cooling towers use reclaimed water from this reuse system? None
8. List or describe any unique or unusual uses of reclaimed water. \_\_\_\_\_  
Flushing, washdown, pump seal lubricant and WWTP on-site potable water replacement.  
\_\_\_\_\_
9. Is there a surface water discharge that serves as a backup discharge for the reuse system?  
 No  Yes, a Limited Wet Weather Discharge permitted under Rule 62-610.860, F.A.C.  
 Yes, permitted under the APRICOT Act [Section 403.086(7), F.S.]  
 Yes, permitted under other rules governing surface water discharges
10. Do you require construction of reclaimed water piping in new residential or other developments?  
 Yes  No
11. Do you require connection to the reclaimed water system when reclaimed water service becomes available?  
 Yes  No



## Part VIII – Cross-Connection Control Activities

Rule 62-610.469, F.A.C., imposes cross-connection control requirements on reuse systems permitted under Part III of Chapter 62-610, F.A.C. This includes requirements for the implementation of cross-connection control programs by all public water supply systems serving areas that are within the general reclaimed water service area. Color-coding, labeling, and separation distance requirements are included. In addition, inspections within the reclaimed water service area are required. For purposes of this form, “cross-connection” means a pipe-to-pipe connection between drinking water pipes and reclaimed water pipes.

1. Are all public water supply systems serving areas that are within the general reuse service area actively implementing and enforcing their cross-connection control programs?  Yes  No N/A

Have all of these cross-connection control programs been accepted by the DEP or the approved county health department?  Yes  No N/A

2. How many illegal cross-connections have been identified during the reporting period? N/A

How many of these cross-connections have been eliminated? N/A

Please, attach a description of identified cross-connections and efforts taken to eliminate them.

3. How many new connections were made to the reclaimed water system during the reporting period? N/A

How many of the new reclaimed water connections were inspected at the time of initial connection? N/A

4. How often are the reclaimed water connections of existing residential reclaimed water customers inspected (i.e., daily, weekly, monthly, annually)? N/A

How often are the reclaimed water connections of existing non-residential reclaimed water customers inspected (i.e., daily, weekly, monthly, annually)? N/A

5. In addition to the number of new connections inspected in Item 3 above, how many existing connections were inspected during the reporting period? N/A

## Part IX - Rates Charged for the Use of Reclaimed Water

Please, list the fees charged for the use of reclaimed water. Please do not enter wastewater or sewer charges. If reclaimed water is provided at no cost, enter zeroes in both blanks. If the fee structure includes both flat rate and gallonage charge components, make a positive entry in both spaces. Make all entries in the units shown.

1. How much do you charge a single-family residential customer (assume a 0.2-acre lot) for the use of reclaimed water?

Flat rate (\$/month/connection) N/A

Gallonage charge (cents/1000 gal.) N/A

2. How much do you charge non-residential customers, such as golf courses, (assume 0.1 mgd on a 50-acre site) for the use of reclaimed water?

Flat rate (\$/month/connection)  N/A

Gallage charge (cents/1000 gal.)  N/A

### Part X - Required Attachments

Check, as appropriate, and attach the required documentation.

**Inventory of Edible Crop Irrigation** - If reclaimed water is used to irrigate edible crops at commercial agricultural sites, attach a copy of the current edible crop irrigation inventory as required by Rules 62-610.475 and 62-610.870, F.A.C. The inventory shall include the following information:

- a. Name of the agricultural operation.
- b. Name and telephone number of the owner or operator of the agricultural operation.
- c. Address of the agricultural operation.
- d. Edible crops irrigated using reclaimed water.
- e. Type of application (irrigation) method used.
- f. Approximate area (acres) under irrigation using reclaimed water on which edible crops are grown.

**Inventory of Storage Facilities** - If this reuse system was permitted under Part III of Chapter 62-610, F.A.C., attach a copy of the current inventory of storage facilities, as required by Rules 62-610.464, 62-610.830, and 62-610.870, F.A.C. The inventory shall include the following information:

- a. Name or identifier for the storage system.
- b. Location.
- c. Function of the storage system (system storage or reject storage).
- d. Type of facility (covered tank, uncovered tank, lined pond, unlined pond).
- e. Indication of whether or not the storage facility is a water of the state or discharges to a water of the state.
- f. Distance to the nearest public water supply well.
- g. Distance to the nearest potable water supply well, which is not a public water supply well.
- h. Volume of each storage tank/pond and the total storage volume of all storage tanks and ponds (in units of million gallons).

**Summary of Public Notification Program** - If this reuse system was permitted under Part III of Chapter 62-610, F.A.C., attach a summary of the public notification program activities during the reporting period, as required by Rule 62-610.468(6), F.A.C. The summary shall include the following:

- a. Details of written public notification activities (include copies of written notices).
- b. Summary of activities involving the news media.
- c. Use of advisory signs.
- d. Other public notification activities.

**Summary of Metering and Rate Structure** – As noted in 403.064(16), Florida Statutes, utilities implementing reuse projects are encouraged to meter use of reclaimed water by all end users and to charge for the use of reclaimed water based on the actual volume used when such metering and charges can be shown to encourage water conservation. Metering and the use of volume-based rates are effective water management tools for the following reuse activities: residential irrigation, agricultural irrigation, industrial uses, landscape irrigation, irrigation of other public access areas, commercial and institutional uses such as toilet flushing, and transfers to other reclaimed water utilities. As required by 403.064(16), F.S., if this reuse system provides reclaimed water for any of the uses listed above, attach a summary of the utility's metering activities and the rate structure that the utility currently employs or plans to employ. The summary shall include the following:

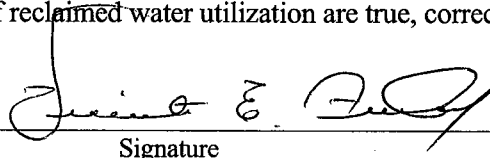
- a. Number of meters employed to monitor volume of reclaimed water used by customers.
- b. If information is available, please provide per capita reclaimed water use for areas that meter and for unmetered areas. If available, please provide historical per capita usage data for before and after the utility began metering reclaimed water.
- c. Provide information on the type of rate structure (i.e., inclining or declining block rates) for reclaimed water employed by the utility.
- d. Provide a description of the utility's use of master meters (i.e., for a subdivision) or the use of individual meters (i.e., for single-family residential customers).
- e. Provide a summary of the utility's plans for metering reclaimed water customers.

None of these items are required for this reuse system.

**Part XI - Permittee's Certification**

I certify that the statements made in this report of reclaimed water utilization are true, correct, and complete to the best of my knowledge and belief.

Date: 12/17/07

  
Signature

Phone: (786) 552-8116

Vicente E. Arrebola, P.E. Assistant Director, Wastewater  
Name and Title (please print/type)

Company Name: Miami-Dade Water and Sewer Department

Address: PO Box 330316

City/State/Zip Code: Miami, FL 33233-0316

E-Mail: arrebv@miamidade.gov