



# MEMORANDUM

GOE  
AGENDA ITEM NO. 5(B)

107.07-17A MIAMI-DADE/GSA-MAT. MGT.

TO: Honorable Chairperson and Members  
Board of County Commissioners

FROM: Steve Shriver  
County Manager

DATE: June 10, 2003

SUBJECT: Resolution Directing the County  
Manager to Prepare Documents and  
Ordinances for Rate Adjustments to  
Implement the Injection Well  
Consent Order and Water and  
Wastewater Master Plans

## RECOMMENDATION

It is recommended that the Board of County Commissioners (Board) adopt the attached resolution directing the County Manager to prepare appropriate documents and ordinances for rate adjustments to implement the Miami-Dade Water and Sewer Department's Water and Wastewater Master Plans, Consent Order relating to Deep Injection Wells and other operational activities to ensure the financial integrity of the County's water and sewer utility system. As companion items to this resolution, the Miami-Dade Water and Sewer Department (MDWASD or Department) has negotiated a Consent Order that will require the Department to construct additional wastewater treatment facilities to resolve regulatory issues associated with the utilization of certain Class I Underground Injection Wells for disposal of wastewater effluent. Additionally, MDWASD has completed updates of its water and wastewater master plans to guide the Department in providing adequate capacity and addressing regulatory and planning issues up to the year 2020. MDWASD has developed the attached Financial Projections Report to inform the Board of the pending financial requirements for the water and sewer utility system.

## BACKGROUND

In response to inquiries regarding potential privatization interest for the County's water and sewer utility system, the Board adopted Resolution No. R-229-98 in March 1998 challenging MDWASD's management and labor unions to work together to meet existing federal and state consent orders/settlement agreements requirements, maintain employee staffing levels with no layoffs, while maintaining no rate increases over a five-year period. In response to that challenge, MDWASD implemented its efficiency program, Partnership Optimizing WASD's Efficiency and Reengineering (POWER) that has identified millions in cost savings and productivity improvements for the Department. The POWER program has been such a success that MDWASD has been able to operate without an increase in retail rates since October 1, 1996. A portion of the cost savings has been shared with employees through gain sharing for documented savings to the Department. The POWER program has achieved national recognition and has been a significant tool in meeting the no rate increase challenge.

In February 1999, the Board adopted Resolution No. R-163-99 establishing a Rate Study Task Force to review the water and sewer rate structure of the MDWASD. The Task Force held several meetings and conducted a comprehensive review of the Department's retail rates that included the use of industry standards to review historical and current rates, assessing the capital improvement program, developing annual revenue requirements, performing rate analyses, evaluating single meter billing for multi-family accounts, analyzing monthly billing and reviewing hardship program options. The Task Force issued

their final report in May 2000 (Resolution No. R-468-00) recommending a new rate structure contingent upon the successful implementation of a new Customer Information System (CIS), and the calculation of numerical rates for the new rate structure. MDWASD successfully completed implementation of the new CIS in December 2001. In April 2002, a Cost of Service and Rate Study Summary Report (Summary Report) was presented to the Board to establish the numerical retail rates for the new rate structure as required by the final report from the Rate Study Task Force. The Board adopted Resolution No. R-411-02 on April 23, 2002 amending A.O #4-110: Schedule of Rates, Fees and Charges, for the MDWASD as recommended by the Summary Report for the new rate structure effective October 1, 2002. Included in the Summary Report, the Department projected a net revenue shortfall beginning in FY 2001-02 (see page 13 of the Summary Report) that needed to be addressed assuming no rate changes. At the end of last fiscal year, September 30, 2002, MDWASD was required to withdraw \$22.6 million from the Rate Stabilization Fund to comply with the Master Bond Ordinance (Ordinance No. 93-134) to meet operations. The Department has continued to express extreme concerns regarding the future financial integrity of the water and sewer utility system after successfully meeting the no rate increase challenge for more than six years.

Numerous factors have been identified for the projected net revenue shortfall and the need for rate increases as reflected in the Summary Report. For example, in response to mandatory water restrictions that occurred during December 2000 through May 2001, water consumption for the Fiscal Year (FY) 2000-01 was significantly lower than previous years reflecting an \$18.8 million reduction in total operating revenues. Additionally, during the annual budget process for FY 2001-02, a retail rate reduction was suggested by the Board to grant some relief to the average combined water and sewer customer. Since FY 2001-02 represented the final year of the no rate increase challenge, staff recommended no change in rates due to the fact that retail rates had not increased since October 1, 1996, and the potential future net revenue shortfall. As part of the public hearing budget process, the Board approved a 10% reduction in retail rates effective October 1, 2001 for the average customer using 7,500 gallons per month. This reduction in retail rates, along with a reduction in the level of wholesale consumption, contributed to a net \$6.5 million reduction in total operating revenues. Also, since a downturn in the financial markets in 2002 and a more aggressive capital expenditure plan, the Department has seen a \$28 million reduction in interest income, a portion of which has historically been used to supplement revenues. Although total operating and maintenance (O&M) expenses decreased more than \$65 million during the fiscal years 1997 through 2000, O&M expenses have increased approximately by \$14 million annually for the fiscal years 2001 and 2002. O&M expenses are projected to increase by another \$12 million for the fiscal year ending 2003. These increases in O&M expenses are due to the additional demands to catch-up and properly maintain the water and sewer system. With these combination of activities over that past few years, a greater financial burden has been placed on the existing rate structure.

MDWASD, along with the Finance Department and OMB has requested a study be performed by the County's independent Financial Advisors for the Department to determine the appropriate level of reserves for the water and sewer utility system. The results of the Financial Advisors study has been completed and supports the need for rate increases. The Financial Advisors memorandum and recommendation for rate adjustments is attached. The Financial Projections Report (FPR), also attached, reflects the Department's attempt at providing an option for the revenue requirements for the water and sewer utility system for the current FY 2002-03 through FY 2008-09. For the current year, it is projected that \$67.3 million will be required to be withdrawn for the Rate Stabilization Fund to meet operations. The projected rate increases reflected in the FPR have been calculated to indicate the minimum increases in rates necessary, while utilizing the Rate Stabilization Fund and the Water and Sewer General Reserve

Fund. The Debt Service Coverage projections are included to reflect ratios with rate increases. Also attached is a letter from the Department's independent bond consultant engineers (Malcolm Pirnie) recommending the need for rate adjustments. The Master Bond Ordinance (93-134) requires that the independent bond consultant engineers provide assurance to the bondholders that rates will be sufficient to meet financial revenue requirements. The Department has more than \$1.8 billion in outstanding revenue bonds and State revolving loans.

As reflected in the companion items, MDWASD has negotiated a Consent Order with the Florida Department of Environmental Protection regarding the utilization of Class I underground injection wells that will require the Department to construct additional \$250 million treatment capacity in order to use the wells for the disposal of wastewater effluent. The Department has also recently completed its water and wastewater master plans that projects demands for the water and sewer utility system through the year 2020. In order to properly plan for future needs, the FPR has been developed to address the financial needs through the end of FY 2008-09. To demonstrate that the financial needs of the water and sewer utility system will be adequately met, it is recommended that the Board authorize staff to develop the appropriate documents for public hearings to adjust the water and sewer rates.

This is a companion item to the following items also on this agenda: Wastewater Facilities Master Plan, Water Facilities Master Plan, Consent Order regarding Injection Wells and the extension of agreement with LeBoeuf, Lamb, Greene & MacRae. It's also a companion item to the ordinance authorizing the County Manager to apply and receive funds from the State of Florida for additional loans from the State Revolving fund. Said ordinance was adopted for first reading at the April 8<sup>th</sup> Board of County Commissioners meeting.



# MEMORANDUM

(Revised)

**TO:** Honorable Chairperson and Members  
Board of County Commissioners

**DATE:** July 8, 2003

**FROM:**   
Robert A. Ginsburg  
County Attorney

**SUBJECT:** Agenda Item No.

Please note any items checked.

- "4-Day Rule" ("3-Day Rule" for committees) applicable if raised
- 6 weeks required between first reading and public hearing
- 4 weeks notification to municipal officials required prior to public hearing
- Decreases revenues or increases expenditures without balancing budget
- Budget required
- Statement of fiscal impact required
- Bid waiver requiring County Manager's written recommendation
- Ordinance creating a new board requires detailed County Manager's report for public hearing
- Housekeeping item (no policy decision required)
- No committee review

Approved \_\_\_\_\_ Mayor  
Veto \_\_\_\_\_  
Override \_\_\_\_\_

Agenda Item No. \_\_\_\_\_

RESOLUTION NO. \_\_\_\_\_

RESOLUTION DIRECTING THE COUNTY MANAGER TO PREPARE APPROPRIATE DOCUMENTS AND ORDINANCES FOR RATE ADJUSTMENTS TO IMPLEMENT THE MIAMI-DADE WATER AND SEWER DEPARTMENT'S WATER AND WASTEWATER MASTER PLANS, CONSENT ORDER RELATING TO DEEP INJECTION WELLS AND ASSOCIATED NECESSARY EXPENSES

WHEREAS, the Miami-Dade Water and Sewer Department (MDWASD) efficiently manages both the treatment and distribution of water and the collection and treatment of wastewater for approximately 2 million people on a daily basis; and

WHEREAS, MDWASD has not had a retail rate increase since October 1, 1996 and has not had a wholesale rate increase since October 1, 1997; and

WHEREAS, MDWASD retail rates were reduced by 10% for the average residential combined water and sewer customer using 7,500 gallons per month effective October 1, 2001; and

WHEREAS, MDWASD must have sufficient funds to implement many water and wastewater projects necessary to meet the future economic growth of the County and to comply with the recently negotiated Consent Order with the State of Florida Department of Environmental Protection relating to Class I underground injection wells and associated necessary expenses; and

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

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that the County Manager is directed to prepare for Board approval the appropriate documents and ordinances for rate adjustments necessary for the proper implementation of the Miami-Dade Water and Sewer Department's Water and Wastewater Master Plans, Consent Order with the State of Florida Department of Environmental Protection relating to deep injection wells and associated necessary expenses.

The foregoing resolution was offered by Commissioner \_\_\_\_\_, who moved its adoption. The motion was seconded by Commissioner \_\_\_\_\_ and upon being put to a vote, the vote was as follows:

Dr. Barbara Carey-Shuler, Chairperson	
Katy Sorenson, Vice-Chairperson	
Bruno A. Barreiro	Jose "Pepe" Diaz
Betty T. Ferguson	Sally A. Heyman
Joe A. Martinez	Jimmy L. Morales
Dennis C. Moss	Dorin D. Rolle
Natacha Seijas	Rebeca Sosa
Sen. Javier D. Souto	

The Chairperson thereupon declared the resolution duly passed and adopted this 6th day of May, 2003. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

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

HARVEY RUVIN, CLERK

Approved by County Attorney as  
to form and legal sufficiency: 

By: \_\_\_\_\_  
Deputy Clerk



May 15, 2003

## Memorandum

**To:** Rachel Baum, Finance Director  
Pedro Hernandez, Assistant County Manager  
Bill Brant, Director, WASD  
Dana Moss, Assistant Director, WASD

**From:** Dean Kaplan, PFM  
Hal Canary, PFM

**c:** Mark Kahn, PFM  
Kyle Turton, PFM

**Re:** WASD Financial Projection

---

Dana has provided us with a final set of projections for FY2004-09 that provide a basis for reaching a consensus on the revenue requirement. Based on those runs, and our discussions over the past several days, we have put together a proposal integrating your comments on the water/sewer revenue options at last Friday's meeting with PFM's recommendations on the reserve balances. A spreadsheet summary of that proposal is attached for your review. The defining characteristic of our proposal is to build up funds sufficient to avoid rate increases in every year, while maintaining adequate reserves. Key aspects of our proposal include:

- Revenue Fund maintained at 1/6 of operating expenses (16.67%);
- General Reserve Fund drawn down to 10% of operating expenses in FY2003 to moderate the revenue requirement, then maintained at no less than 10% in the out years;
- Rate Stabilization Fund allowed to build up reserves in rate increase years and draw on those reserves in the intervening years.
- Total reserves (Revenue Fund, General Reserve Fund, Rate Stabilization Fund) never below 30% of operating expenses;
- Renewal & Replacement contribution from operating revenue set at \$60 million per year after FY2003;
- Forward BPA assumed at a conservative \$12.0 million, taken in FY2003.

This results in the following pattern of WASD revenue requirements:

Fiscal Year	Proposed Rate Increase
FY2004	13.0%
FY2005	0%
FY2006	13.0%
FY2007	0%
FY2008	12.5%
FY2009	0%



You will see that although the overall reserve fund balances are similar in the recent WASD runs and this version, the PFM approach generally holds more money in the Rate Stabilization Fund and less in the General Reserve Fund. Also, having slightly larger rate increases every other year marginally reduces the cumulative amount of increases needed from FY2004-09. Note that to make this system work, it is imperative to build up the Rate Stabilization Fund beginning in FY2004.

#### Caveats

- We have based our proposal on the summary scenarios provided by WASD. PFM does not have the WASD model. Because most of our changes involve the reserve funds, we believe that our proposal will result in the revenue requirements shown on the previous page, and that it will meet coverage. Coverage numbers might be slightly different from those in our calculations, but not material; however, our approach should be run back through WASD's model for verification.
- PFM's proposal uses the projected FY2003 General Reserve Fund balance as a starting point, drawing it down to 10% of operating expenditures, and then adding funds as necessary to maintain that balance. In WASD's scenarios, additional amounts are added and subtracted to the balance in FY2003 and FY2004. PFM does not include these additional amounts, but rather adopts WASD's numbers through the FY2003 projected ending amount of \$56.6 million and then allows the model to calculate a minimum balance.
- By setting the Renewal & Replacement contribution at \$60 million per year, WASD will contribute approximately \$16 million less to R&R over the period from FY2004-09. However, it will actually contribute more from FY2004-07 than the WASD scenarios anticipated, which might allow a slight debt service savings in the early years. The FY2009 borrowing might need to be slightly enlarged or advanced to account for the net lower contribution in the last two years.
- Revenue requirements will have to be higher if the 1% annual usage demand growth does not materialize. Monday's discussion about an incipient drought at the Government Operations Committee workshop does not augur well for achieving this 1% in the short term.
- The FY2004 revenue requirement will change if FY2003 projected results change.
- Revenue requirements will not translate directly into rate increases; it is likely that rates will be slightly higher than projected revenue requirements to account for collections and timing.

We hope that this version of the projections can provide a basis for finalizing the PFM report in advance of the June 3 Commission briefing and the June 10 Budget & Finance Committee consideration of the revenue proposal.

Please let us know your thoughts.

MIAMI-DADE WATER AND SEWER SYSTEMS - FINANCIAL PROJECTION

Consolidated Financial Projection - Water and Wastewater Systems (\$000)

Description	FY 2002 Actual	FY 2003 Budget	FY 2003 Projected	FY 2004 Projected	FY 2005 Projected	FY 2006 Projected	FY 2007 Projected	FY 2008 Projected	FY 2009 Projected
<b>Operating Revenues</b>									
Retail Water	\$121,632	\$124,396	\$123,957	\$141,472	\$142,887	\$163,077	\$164,708	\$187,149	\$189,021
Wholesale Water	\$20,236	\$21,785	\$21,540	\$24,584	\$24,829	\$28,338	\$28,621	\$32,521	\$32,846
Retail Wastewater	\$142,334	\$142,154	\$142,447	\$162,575	\$164,201	\$187,402	\$189,276	\$215,065	\$217,216
Wholesale Wastewater	\$52,909	\$53,613	\$53,522	\$61,085	\$61,696	\$70,413	\$71,117	\$80,807	\$81,615
Other Operating Revenue	\$16,995	\$17,303	\$17,303	\$19,748	\$19,945	\$22,764	\$22,991	\$26,124	\$26,385
<b>Sub-total Operating Revenues</b>	<b>\$354,106</b>	<b>\$359,251</b>	<b>\$358,769</b>	<b>\$409,463</b>	<b>\$413,558</b>	<b>\$471,993</b>	<b>\$476,713</b>	<b>\$541,666</b>	<b>\$547,083</b>
Water System O&M	(\$84,344)	(\$104,484)	(\$82,947)	(\$100,363)	(\$104,610)	(\$109,793)	(\$114,538)	(\$120,553)	(\$125,860)
Wastewater System O&M	(\$112,528)	(\$121,639)	(\$115,335)	(\$123,806)	(\$129,118)	(\$135,690)	(\$141,645)	(\$149,354)	(\$156,039)
<b>Sub-total O&amp;M Expenses</b>	<b>(\$196,872)</b>	<b>(\$226,123)</b>	<b>(\$208,282)</b>	<b>(\$224,169)</b>	<b>(\$233,728)</b>	<b>(\$245,483)</b>	<b>(\$256,183)</b>	<b>(\$269,907)</b>	<b>(\$281,899)</b>
Interest Income	\$32,750	\$39,317	\$19,858	\$17,077	\$17,504	\$17,942	\$18,390	\$18,850	\$19,321
Debt Service - Existing	(\$126,547)	(\$129,088)	(\$117,785)	(\$120,648)	(\$124,983)	(\$128,152)	(\$131,890)	(\$132,499)	(\$132,498)
Debt Service - Proposed	\$0	\$0	\$0	(\$1,128)	(\$5,868)	(\$5,868)	(\$28,086)	(\$28,086)	(\$49,531)
R&R Contribution from Operating Revenue	(\$68,222)	(\$69,812)	(\$69,812)	(\$60,000)	(\$60,000)	(\$60,000)	(\$60,000)	(\$60,000)	(\$60,000)
Service Installation Fees/Other Contributions	\$8,085	\$1,670	\$1,791	\$1,875	\$1,875	\$1,875	\$1,875	\$1,875	\$1,875
Fire Hydrant Fund	(\$2,102)	(\$917)	(\$870)	(\$1,843)	(\$1,843)	(\$1,843)	(\$1,843)	(\$1,843)	(\$1,843)
Other Charges/Adjustments	(\$62)	(\$5,976)	(\$6,611)	(\$1,871)	(\$4,476)	(\$4,218)	(\$4,333)	(\$4,295)	(\$4,569)
Change in Revenue Fund Reserve Requirement	(\$1,996)	(\$1,044)	(\$1,044)	\$325	(\$1,594)	(\$1,959)	(\$1,783)	(\$2,288)	(\$1,998)
Operating Transfer to County	(\$33,035)	(\$32,052)	(\$35,041)	(\$31,487)	(\$31,105)	(\$35,500)	(\$35,855)	(\$40,922)	(\$41,331)
Transfer from/(to) Rate Stabilization Fund	\$22,640	\$33,988	\$55,252	(\$21,823)	\$31,617	(\$7,611)	\$24,065	(\$21,178)	\$6,590
Transfer from/(to) General Reserve	\$11,255	\$30,786	\$3,775	\$34,229	(\$956)	(\$1,176)	(\$1,070)	(\$1,372)	(\$1,199)
<b>Sub-total Non-Operating &amp; Transfers</b>	<b>(\$157,234)</b>	<b>(\$133,128)</b>	<b>(\$150,487)</b>	<b>(\$185,294)</b>	<b>(\$179,830)</b>	<b>(\$226,510)</b>	<b>(\$220,530)</b>	<b>(\$271,759)</b>	<b>(\$265,184)</b>
<b>Net Excess/(Deficit) Revenues</b>	<b>\$0</b>								
Rate Stabilization Fund Balance	\$90,915	\$56,927	\$35,663	\$57,486	\$25,870	\$33,481	\$9,416	\$30,594	\$24,004
<b>Rate Stabilization Fund (floating)</b>				<b>\$57,486</b>	<b>\$25,870</b>	<b>\$33,481</b>	<b>\$9,416</b>	<b>\$30,594</b>	<b>\$24,004</b>
General Reserve Fund Balance	\$68,943	\$41,620	\$56,646	\$22,417	\$23,373	\$24,548	\$25,618	\$26,991	\$28,190
<b>General Reserve Fund Target (10% Op-Ex)</b>				<b>\$22,417</b>	<b>\$23,373</b>	<b>\$24,548</b>	<b>\$25,618</b>	<b>\$26,991</b>	<b>\$28,190</b>
Revenue Fund Reserve Required By Ordinance (16.67%)	\$36,642	\$37,686	\$37,686	\$37,361	\$38,955	\$40,914	\$42,697	\$44,985	\$46,983
Total Fund Balances	\$186,500	\$136,233	\$129,995	\$117,264	\$88,197	\$98,943	\$77,731	\$102,569	\$99,177
As a % of Operating Expenses	94.73%	60.25%	62.41%	52.31%	37.74%	40.31%	30.34%	38.00%	35.18%
<b>Usage Demand Growth</b>				<b>1.00%</b>	<b>1.00%</b>	<b>1.00%</b>	<b>1.00%</b>	<b>1.00%</b>	<b>1.00%</b>
<b>Revenue Requirement</b>				<b>13.00%</b>	<b>0.00%</b>	<b>13.00%</b>	<b>0.00%</b>	<b>12.50%</b>	<b>0.00%</b>

**MIAMI-DADE WATER & SEWER DEPARTMENT**  
**PROJECTED DEBT SERVICE COVERAGE WITH RATE INCREASE**  
 Fiscal Years 2003 Through 2009

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
	Projected						
<b>Revenues Available for Debt Service</b>							
Operating Revenues	\$358,769	\$409,463	\$413,558	\$471,993	\$476,713	\$541,666	\$547,083
Investment Earnings (Excluding Income from Construction Funds)	14,994	13,171	13,500	13,838	14,184	14,538	14,902
Net Rate Stabilization Fund Withdrawals/Deposits	55,252	-21,823	31,617	-7,611	24,065	-21,178	6,590
Total Revenues Available for Debt Service	\$429,015	\$400,811	\$458,674	\$478,220	\$514,962	\$535,026	\$568,574
Operating and Maintenance Expenses	208,282	224,169	233,728	245,483	256,183	269,907	281,899
Net Revenues Available for Debt Service	\$220,733	\$176,642	\$224,946	\$232,737	\$258,779	\$265,119	\$286,675

<b>Primary Debt Service Coverage Ratio</b>							
Net Revenues Available for Debt Service	(a)	\$220,733	\$176,642	\$224,946	\$232,737	\$258,779	\$265,119
Debt Service Requirements on Outstanding Bonds	(b)	115,629	105,341	114,416	117,585	143,541	144,150
<b>Primary Debt Service Coverage Ratio ("a" divided by "b")</b>		1.91	1.68	1.97	1.98	1.80	1.84
Required Primary Debt Service Coverage Ratio	(e)	1.10	1.10	1.10	1.10	1.10	1.10

<b>Subordinate Obligations Requirement</b>							
Net Revenues Available for Debt Service	(a)	220,733	176,642	224,946	232,737	258,779	265,119
Less: Maximum Principal & Interest on All Bonds		122,887	105,341	114,416	117,585	143,541	144,150
Adjusted Net Revenues Available for Debt Service	(c)	\$97,846	\$71,301	\$110,531	\$115,152	\$115,238	\$120,969
Debt Service & Reserve Requirements on Subordinate Obligations	(d)	15,261	16,435	16,435	16,435	16,435	16,435
<b>Subordinate Obligations Requirement Ratio ("c" divided by "d")</b>		6.41	4.34	6.73	7.01	7.01	7.37
Required Subordinate Obligations Ratio		1.00	1.00	1.00	1.00	1.00	1.00

<b>Subordinate Obligations Debt Service Coverage Ratio</b>							
Net Revenues Available for Debt Service	(a)	\$220,733	\$176,642	\$224,946	\$232,737	\$258,779	\$265,119
Less: Revenue Required for Primary Debt Coverage ("b" multiplied by "e")		127,192	115,875	125,858	129,343	157,895	158,565
Adjusted Net Revenues Available for Subordinate Debt Service	(f)	\$93,541	\$60,767	\$99,089	\$103,394	\$100,884	\$106,554
Debt Service Requirements on Subordinate Obligations	(g)	14,903	16,435	16,435	16,435	16,435	16,435
<b>Subordinate Obligations Debt Service Coverage Ratio ("f" divided by "g")</b>		6.28	3.70	6.03	6.29	6.14	6.48
Required Subordinate Obligations Coverage Ratio		1.15	1.15	1.15	1.15	1.15	1.15

Notes:  
 All figures, except for Debt Service Coverage ratios, are in thousands of dollars.  
 The Master Bond Ordinance (#93-134) requires that earnings from the Construction Fund be excluded from Operating Revenues.  
 Input data based on Budget Section's Financial Projection schedule dated 3/21/03



April 25, 2003

RECEIVED  
APR 30 2003  
MIAMI DADE WATER & SEWER  
DEPARTMENT  
ASST. DIRECTOR - FINANCE

Mr. William M. Brant, P.E.  
Director  
Miami-Dade Water and Sewer Department  
3071 SW 38th Avenue  
Miami, FL 33146

Re: Need for Increasing Rates and Charges

Dear Mr. Brant:

Malcolm Pirnie, in conjunction with Planning and Economics Group, is completing the Consulting Engineer's report for Fiscal Year 2001. The report addresses the condition of the Miami-Dade Water and Sewer Department's (Department) physical assets, revenues, expenses, debt service coverage, and other aspects of the Department's operations covered in Miami-Dade County Ordinance 93-134, the Department's Bond Ordinance. While the report focused on conditions existing during Fiscal Year 2001, it also addressed financial and related conditions in Fiscal Years 2002 and 2003. Our analysis indicates that the Department complied with all the requirements of the Bond Ordinance in Fiscal Year 2001 and Fiscal Year 2002 as well.

A key part of our analysis is the assessment of the appropriateness of rates and charges to meet debt service coverage requirements. While our analysis formally extended only through Fiscal Year 2003, we have concluded that by Fiscal Year 2004, the Department's projected revenues will not be sufficient to cover its projected expenses, and the Department's reserve will not be sufficient to make up this deficit.

The Department has utilized the Rate Stabilization Fund and General Reserve Fund during the last few years to fund operating expenses without increasing rates and fees. As a result these fund balances have fallen from \$197,216,000 in Fiscal Year 2001 to a projected amount of \$72,829,000 at the end of Fiscal Year 2003. This represents a decrease of 63 percent in the fund balance. The General Reserve Fund and Rate Stabilization Fund were 109 percent of the operating expenses in Fiscal Year 2001. For Fiscal Year 2003, it is projected that the General Reserve Fund and Rate Stabilization Fund will be 34 percent of operating expenses. The practice of using of these funds to pay operating expenses cannot be continued by the Department. Eventually they must be replenished to provide money for emergency situations and also to minimize the need for future large rate increases.

Mr. William Brant  
Miami-Dade Water and Sewer Department

April 25, 2003  
Page 2

Section 602 of the Bond Ordinance requires that the Department maintain rates and charges sufficient to meet certain stipulated debt service coverage tests. While the Department might meet these tests in Fiscal Year 2004, it is unlikely that the Department would meet its cash flow needs, including funding both operating and non-operating expenses and maintaining reserves sufficient to meet its facility and equipment renewal and replacement needs. Section 508 of the Bond Ordinance requires annual funding for renewal and replacement expenses.

The Department is planning to refund a substantial amount of existing debt before the end of Fiscal Year 2003. The refunding will reduce the Department's non-operating costs and, therefore, reduce the Department's cash flow problem as early as Fiscal Year 2004. However, under the Department's Bond Ordinance, the Department's bond consultant must assess the feasibility of the refunding, including developing financial forecasts covering at least the next five years. The feasibility of the refunding effort will depend largely on the Department's ability to generate revenues sufficient to meet the Department's operating and non-operating expenses during the projection period. As noted above, the Department's revenues do not appear to be sufficient based on its current rates and charges and level of expenses.

The need for additional revenue will become even more acute in the years after 2004, as the Department implements major improvements needed to achieve regulatory compliance under the pending Consent Agreement with the Florida Department of Environmental Protection. Under this agreement, the Department must make major improvements in the wastewater treatment process, with capital costs expected to exceed \$200 million. The Department will need to fund these improvements through the issuance of new bonds. Again, higher rates and charges will be necessary to generate revenues sufficient to service that new debt as well as debt resulting from other regulatory compliance initiatives and meet the Department's operating and other non-operating expenses.

The Department has taken a number of steps during the last five years to reduce both its operating and non-operating expenses. There appears to be little additional opportunity for significant additional cost reductions. Therefore, the Department will need to seek increases in its operating revenues to address the cash flow issue. In as much as most of the Department's revenue is derived from retail and wholesale water and sewer customers, the Department's only effective recourse will be to raise its retail and wholesale rates and charges, while also addressing other charges for connection fees and impact fees. We are recommending that the Department immediately initiate an effort to increase rates and charges to meet the Department's cash flow and future debt service requirements.

**MALCOLM  
PIRNIE**

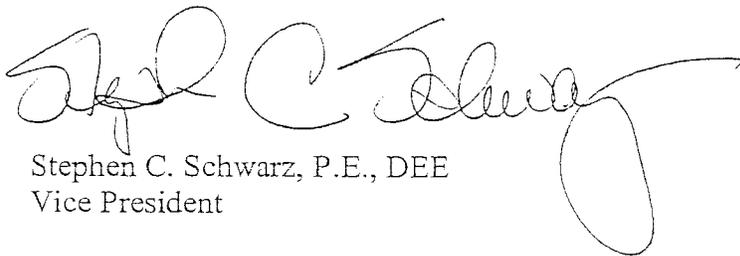
Mr. William Brant  
Miami-Dade Water and Sewer Department

April 25, 2003  
Page 3

Please let us know if you have any questions on this matter.

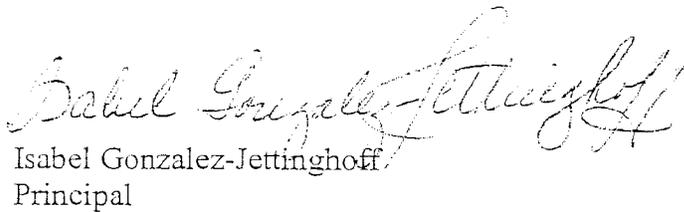
Very truly yours,

**MALCOLM PIRNIE, INC.**



Stephen C. Schwarz, P.E., DEE  
Vice President

**PLANNING AND ECONOMICS GROUP, INC.**



Isabel Gonzalez-Jettinghoff  
Principal

c: Dana M. Moss, CPA, MD-WASD  
Nigel Grace, P.E., Malcolm Pirnie



SERVE • CONSERVE



**Miami-Dade County  
Water and Sewer Department  
FINANCIAL PROJECTIONS  
REPORT**

**JUNE 2003**

# Commission Actions



- ◆ Board approved/adopted rate activities:
  - Last retail rate increase (3.3% water and 4.3% sewer) approved effective 10/01/96
  - Issued "No Rate Increase" challenge in 1998
  - Established Rate Study Task Force in 1999
  - Accepted Rate Study Task Force recommendations in 2000
  - Reduced retail rates by 10% for average customer effective 10/01/2001
  - Adopted recommendations for numerical rates for new rate structure effective 10/01/2002

# Current Situation Analysis



- ◆ Retail Rates/Revenues
  - In FY 2000-01 more than \$18 million reduction in actual total revenues occurred from reduced consumption & demand (due to water restrictions)
  - In FY 2001-02 more than \$6.5 million reduction in retail revenues attributable to rate reduction enacted by Board (26% reduction in 1<sup>st</sup> block of retail rates)
  - In FY 2001-02 more than \$28 million reduction in interest income due to low interest rates
- ◆ Operating & Other Costs
  - Efficiency program: Cumulative savings of \$150-\$165 million in annual O&M costs between FY 1994-95 & FY 1999-00
  - Operations and Maintenance (O&M) costs has been increasing since FY 2001 & 2002
    - \$28 million increase in O&M expense over two-year period
    - \$11.4 million increase projected for FY 2002-03
    - An additional 49 new positions are included in the proposed FY 2003-04 budget
  - Increase in contribution to County general fund

# Current Situation Analysis (cont.)



- ◆ Capital Improvement Plans
  - Significant capital funding requirements identified in Multi-year capital budget
    - Approx. \$2.6 billion of spending is budgeted (FY 2003-04 through FY 2008-09)
  - New bond issues proposed for Bond Series 2003-04, 2006-07, and 2008-09 and future total more than \$1.08 billion
- ◆ Increasing Debt Service (Adjusted for Refunding Issue)
- ◆ Utilization of Rate Stabilization Fund is Needed
- ◆ Board Action Needed
  - Pending 1993 Refunding Revenue Bond Issue to be reviewed by rating agencies
  - Rate adjustments should be approved to provided adequate time for proper notification and implementation

# Financial Projections



**Consolidated Financial Projection - Water and Wastewater Systems (\$000)**  
(Assuming Rate Changes) SEE RELATED ASSUMPTIONS

**SCHEDULE B**

Description	FY 2001-2002	FY 2002-2003	FY 2003-2004	FY 2004-2005	FY 2005-2006	FY 2006-2007	FY 2007-2008	FY 2008-2009
	Actual	Projected						
<b>Operating Revenues</b>								
Retail Water	\$121,632	\$123,957	\$123,957	\$123,957	\$123,957	\$123,957	\$123,957	\$123,957
Wholesale Water	\$20,236	\$21,540	\$21,540	\$21,540	\$21,540	\$21,540	\$21,540	\$21,540
Retail Wastewater	\$142,334	\$142,447	\$142,447	\$142,447	\$142,447	\$142,447	\$142,447	\$142,447
Wholesale Wastewater	\$52,909	\$53,522	\$53,522	\$53,522	\$53,522	\$53,522	\$53,522	\$53,522
Other Operating Revenue	\$16,995	\$17,303	\$17,303	\$17,303	\$17,303	\$17,303	\$17,303	\$17,303
<b>Increase Due to Growth (1%)</b>	\$0	\$0	\$3,588	\$7,212	\$11,216	\$15,374	\$20,186	\$25,275
<b>Cumulative Revenue Increases</b>	\$0	\$0	\$3,588	\$34,421	\$45,793	\$107,052	\$129,994	\$178,096
Sub-total Operating Revenues	\$354,106	\$358,769	\$362,357	\$400,402	\$415,778	\$481,195	\$508,949	\$562,140
Water System O&M	(\$84,344)	(\$92,947)	(\$100,363)	(\$104,610)	(\$109,769)	(\$114,563)	(\$120,379)	(\$125,779)
Wastewater System O&M	(\$112,528)	(\$115,335)	(\$123,806)	(\$129,118)	(\$135,654)	(\$141,680)	(\$149,103)	(\$155,924)
Sub-total O&M Expenses	(\$196,872)	(\$208,282)	(\$224,169)	(\$233,728)	(\$245,423)	(\$256,243)	(\$269,482)	(\$281,703)
Interest Income	\$32,750	\$19,858	\$17,077	\$17,504	\$17,942	\$18,391	\$18,851	\$19,322
Debt Service - Existing	(\$126,547)	(\$129,785)	(\$120,648)	(\$124,983)	(\$128,152)	(\$131,890)	(\$132,499)	(\$132,498)
Debt Service - Proposed	\$0	\$0	(\$1,128)	(\$5,868)	(\$5,868)	\$0	\$0	(\$49,531)
<b>1995 Bond Savings - One Time</b>	\$68,222	(\$69,812)	(\$51,203)	\$12,000	(\$75,000)	(\$60,000)	(\$75,000)	(\$65,000)
R&R Contribution from Op. Revenue	\$8,085	\$1,791	\$1,875	\$1,875	\$1,875	\$1,875	\$1,875	\$1,875
Service Installation Fees/Other Contributions	(\$2,102)	(\$370)	(\$1,843)	(\$1,843)	(\$1,843)	(\$1,843)	(\$1,843)	(\$1,843)
Fire Hydrant Fund	(\$62)	(\$6,611)	(\$1,871)	(\$4,476)	(\$1,949)	(\$1,803)	(\$4,295)	(\$4,569)
Other Charges/Adjustments	(\$1,996)	(\$1,044)	\$325	(\$1,594)	(\$1,949)	(\$1,803)	(\$2,207)	(\$2,037)
Change in Reserve Requirement	(\$33,035)	(\$35,041)	(\$33,701)	(\$31,105)	(\$34,401)	(\$35,701)	(\$41,359)	(\$43,709)
Operating Transfer to County	\$11,255	\$3,775	\$7,201	\$0	\$0	\$0	\$0	\$0
Transfer from W&S Reserve Fund	\$22,640	\$67,252	\$23,663	\$12,356	\$0	\$0	\$0	\$0
Sub-total Non-Operating & Transfers	(\$157,234)	(\$150,487)	(\$160,253)	(\$176,134)	(\$231,614)	(\$243,390)	(\$264,563)	(\$277,990)
<b>Net Overage/(Deficit) in Revenues</b>	\$0	\$0	(\$22,065)	(\$9,460)	(\$61,259)	(\$18,438)	(\$25,096)	\$2,447
Additional Revenue to fund Rate Stabilization			(\$12,356)	\$0	\$0	\$0	(\$20,358)	\$0
Overage/Shortfall in Reserves			\$0	(\$1,912)	(\$2,339)	(\$4,504)	(\$2,648)	\$17,916
<b>Cumulative Revenue from Rate Increases</b>			(\$34,421)	(\$45,793)	(\$107,052)	(\$129,994)	(\$178,096)	(\$157,733)
<b>% Increase for Net Deficit</b>			6.09%	2.36%	14.73%	3.83%	4.93%	0.00%
<b>% Increase for Rate Stabilization</b>			3.41%	0.00%	0.00%	0.00%	4.00%	0.00%
<b>% Increase for Reserve Shortfall</b>			0.00%	0.48%	0.00%	0.94%	0.52%	0.00%
<b>% Increase for Total Needs</b>			9.50%	2.84%	14.73%	4.77%	9.45%	0.00%
<b>Rate Stabilization Fund Balance</b>	\$90,915	\$23,663	\$12,356	\$0	\$0	\$0	\$20,358	\$22,805
<b>Water and Sewer Reserve Fund Balance</b>	\$58,943	\$56,646	\$44,834	\$46,746	\$46,746	\$51,250	\$53,897	\$53,897
<b>Reserve Required By Bond Ordinance</b>	\$36,642	\$37,686	\$37,361	\$38,955	\$40,904	\$42,707	\$44,914	\$46,951
<b>Financial Advisor's Recommended Reserves (A)</b>	\$76,016	\$79,342	\$82,195	\$85,701	\$89,989	\$93,956	\$98,810	\$103,292
<b>Financial Advisor's Recommended Reserves (B)</b>	\$56,329	\$58,514	\$59,778	\$62,328	\$65,446	\$68,331	\$71,862	\$75,121

(A) Reserves with Rate Stabilization Fund @ 10% of O&M  
(B) Reserves with Rate Stabilization Fund @ 0% of O&M

19

# Projected Debt Service Coverage



## Projected Debt Service Coverage with Rate Increases to meet Revenue Requirements Fiscal Years 2003 Through 2009

	FY 2002-3	FY 2003-4	FY 2004-5	FY 2005-6	FY 2006-7	FY 2007-8	FY 2008-9
<b>Revenues Available for Debt Service</b>							
Operating Revenues	\$358,769	\$396,778	\$411,774	\$477,037	\$504,137	\$557,051	\$562,140
Investment Earnings (Excluding Income from Construction Funds)	14,994	13,171	13,500	13,838	14,184	14,538	14,902
Net Rate Stabilization Fund Withdrawals/Deposits	67,252	23,663	0	0	0	0	0
Total Revenues Available for Debt Service	\$441,015	\$433,612	\$425,274	\$490,875	\$518,321	\$571,589	\$577,042
Operating and Maintenance Expenses	208,282	224,169	233,728	245,423	256,243	269,482	281,703
Net Revenues Available for Debt Service	\$232,733	\$209,443	\$191,546	\$245,452	\$262,078	\$302,107	\$295,339
<b>Primary Debt Service Coverage Ratio</b>							
Net Revenues Available for Debt Service	\$232,733	\$209,443	\$191,546	\$245,452	\$262,078	\$302,107	\$295,339
Debt Service Requirements on Outstanding Bonds	114,420	105,341	114,416	117,585	143,541	144,150	165,594
<b>Primary Debt Service Coverage Ratio ("a" divided by "b")</b>	2.03	1.99	1.67	2.09	1.83	2.10	1.78
Required Primary Debt Service Coverage Ratio	1.10	1.10	1.10	1.10	1.10	1.10	1.10
<b>Subordinate Obligations Requirement</b>							
Net Revenues Available for Debt Service	232,733	209,443	191,546	245,452	262,078	302,107	295,339
Less: Maximum Principal & Interest on All Bonds	116,310	116,310	122,178	122,178	144,396	144,396	165,841
Adjusted Net Revenues Available for Debt Service	\$116,424	\$93,133	\$69,369	\$123,274	\$117,682	\$157,712	\$129,498
Debt Service & Reserve Requirements on Subordinate Obligations	15,261	16,435	16,435	16,435	16,435	16,435	16,435
<b>Subordinate Obligations Requirement Ratio ("c" divided by "d")</b>	7.63	5.67	4.22	7.50	7.16	9.60	7.88
Required Subordinate Obligations Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<b>Subordinate Obligations Debt Service Coverage Ratio</b>							
Net Revenues Available for Debt Service	\$232,733	\$209,443	\$191,546	\$245,452	\$262,078	\$302,107	\$295,339
Less: Revenue Required for Primary Debt Coverage ("b" multiplied by "e")	125,862	115,875	125,858	129,344	157,895	158,565	182,153
Adjusted Net Revenues Available for Subordinate Debt Service	\$106,871	\$93,568	\$65,689	\$116,108	\$104,183	\$143,542	\$113,185
Debt Service Requirements on Subordinate Obligations	14,903	16,435	16,435	16,435	16,435	16,435	16,435
<b>Subordinate Obligations Debt Service Coverage Ratio ("f" divided by "g")</b>	7.17	5.69	4.00	7.06	6.34	8.73	6.89
Required Subordinate Obligations Coverage Ratio	1.15	1.15	1.15	1.15	1.15	1.15	1.15

# FINANCIAL PROJECTIONS ASSUMPTION



- ◆ Revenues
  - For FY 2003-04 a 9.5% revenue requirement is an option for consideration
  - FY 2004-05 through FY 2008-09 proposed increases necessary to meet financial requirements
  - A 1% increase for revenue growth assumed each year
- ◆ Operating & Maintenance Expenses (O&M)
  - Add 49 new positions in FY 2003-04 and 25 positions for future years
  - Includes cost of living increases between 3% and 4% and merit increases
  - FY 2003-04 adjusted based on input from OMB
  - FY 2004-05 through FY 2008-09 based on a 2.9% C.P.I. escalation from prior year
- ◆ Interest Income
  - FY 2003-04 based on projected fund balances and interest rates
  - Interest rate projections based on a 2.5% increase each year thereafter

21

## Financial Projections Assumption (cont.)



- ◆ Debt Service
  - Existing Debt Service based on annual debt services for existing bonds with proposed 1993 refunding bond issue
  - Proposed Debt Service based on new Bond Issues for 2004, 2006 and 2008 totaling more than \$761 million
  - FY 2004-05 includes a one time \$12M 1995 Bond Savings
- ◆ Renewal & Replacement (R&R)
  - R&R funding to meet the needs as identified by the Department

22

# Future Capital Financing



## Proposed Bond Funding Amounts:

Category	Total Water & Sewer Services	
	Water Services	Sewer Services
FY 2003-04	\$23,100,000	\$58,900,000
FY 2006-07	\$110,900,000	\$199,600,000
FY 2008-09 & Future	\$75,500,000	\$612,600,000
TOTAL	\$209,500,000	\$871,100,000

NW