NORTH MIAMI
FLORIDA
776 N.E. 125 Street, North Miami, Florida 33161

Council Report

To: The Honorable Mayor and City Council

From: Aleem A. Ghany, P.E., Public Works Director

Date: ~~August 21, 2013~~ October 8, 2013

RE: **A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, ADOPTING THE CLEAN WATER FACILITIES PLAN ADDENDUM FOR FDEP – SRF CONSIDERATION**

RECOMMENDATION

Staff recommends that Council adopt the proposed Florida Department of Environmental Protection (FDEP) State Revolving Fund (SRF) Clean Water Facilities Plan Addendum which addresses needed improvements to the City's wastewater collection and transmission system (Piping and Pump Stations). Approving this resolution will allow the City's Public Works Department to comply with the FDEP regulatory requirements and also allow the City to obtain low interest loan funding through the FDEP-SRF program for the Construction. The Clean Water Facilities Plan amends/supplements the:

- Sanitary Sewer Master Plan by Hazen & Sawyer
- Sanitary Sewer Evaluation Survey by Atkins Engineers
- Second Cycle Sanitary Sewer Evaluation Survey Phase I & II Preliminary Sewer System Survey by CDM
- Facilities Plan by Black and Veatch

This Facilities Plan Addendum complies with the requirements established by 62-552 FAC.

BACKGROUND

Wastewater utilities across the country are facing serious challenges with the increasing need to maintain aging infrastructure, and the stringent regulatory requirements imposed on utilities by USEPA, FDEP and Miami-Dade County Department of Regulatory and Economic Resources (RER). The City of North Miami is faced with the same challenges. The Sanitary Sewer Master Plan by Hazen & Sawyer, the Sanitary Sewer Evaluation Survey (SSES), and the Peak Flow Management Study mandated by

the USEPA conducted hydraulic modeling, which outlines several components of the sanitary sewer system, has insufficient capacity and shows unsatisfactory performance which may result in wastewater overflows.

The City also has high inflow and infiltration (I&I) conditions in the system which contribute to overloading of the wastewater collection system (pipes, pumps, etc.). The goal of the City of North Miami's utilities is to solve structural defects, reduce inflow and infiltration, and to maximize the flow capacity of the sanitary sewer system in the most cost effective and environmentally sound manner. It is critical for the City to minimize the number of wastewater overflows and reduce the amount of I&I within the collection system, all within operational compliance. Recommended improvements noted in the above wastewater collections system reports are part of the utilities' strategic plan to maintain regulatory compliance and provide continuous customer service.

ATTACHMENTS;

1) Resolution
2) PowerPoint Summary of Facilities Plan

RESOLUTION NO. _____

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, APPROVING THE ATTACHED CLEAN WATER FACILITIES PLAN ADDENDUM TO THE CITY OF NORTH MIAMI SANITARY SEWER MASTER PLAN AND SECOND CYCLE SANITARY SEWER EVALUATION SURVEY ("FACILITIES PLAN"); AND FURTHER AUTHORIZING THE CITY MANAGER AND CITY ATTORNEY TO DO ALL THINGS NECESSARY TO IMPLEMENT THE FACILITIES PLAN IN ORDER TO OBTAIN AVAILABLE FUNDING FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE REVOLVING FUND ("SRF"), IN ACCORDANCE WITH FLORIDA LAW; PROVIDING FOR AN EFFECTIVE DATE AND FOR ALL OTHER PURPOSES.

WHEREAS, the Florida Safe Drinking Water Act under Chapter 403, Florida Statues, provides for financial assistance to local government agencies to finance construction of wastewater collection and transmission system improvements; and

WHEREAS, the Florida Department of Environmental Protection State Revolving Fund ("SRF"), has designated wastewater collection and transmission system improvements as eligible for available funding to finance needed construction and infrastructure improvements to the City of North Miami ("City"), under Project Number CW Project No. WW13180; and

WHEREAS, the Clean Water Facilities Plan Addendum to the City Sanitary Sewer Master Plan and Second Cycle Sanitary Sewer Evaluation Survey ("Facilities Plan"), was prepared by the City to meet the funding requirements of the SRF, at an approximate cost of Thirteen Million Two Hundred Thirty-Five Thousand Nine Hundred Fifty-Two Dollars ($13,235,952.00); and

WHEREAS, as a condition of obtaining SRF funding, the City is required to hold a public meeting and discuss the various elements of the Facilities Plan proposed for the waste water collection and transmission system improvements; and

WHEREAS, City administration respectfully requests that the Mayor and City Council approve the attached Facilities Plan, allowing the City to participate in the SRF funding program; and

WHEREAS, the Mayor and City Council have determined that the approval of the attached Facilities Plan for waste water collection and transmission system improvements, to allow the City to obtain necessary funding in accordance with SRF guidelines, is in the best interest of the City.

NOW THEREFORE, BE IT DULY RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA:

Section 1. **Approval of Clean Water Facilities Plan Addendum.** The Mayor and City Council of the City of North Miami, Florida, hereby approve the attached Clean Water Facilities Plan Addendum to the City of North Miami Sanitary Sewer Master Plan and Second Cycle Sanitary Sewer Evaluation Survey ("Facilities Plan").

Section 2. **Authority of City Manager and City Attorney.** The Mayor and City Council of the City of North Miami, Florida, hereby authorize the City Manager and City Attorney to do all things necessary to implement the Facilities Plan in order to obtain available funding from the Florida Department of Environmental Protection State Revolving Fund ("SRF"), in accordance with Florida law.

Section 3. **Effective Date.** This Resolution shall become effective immediately upon adoption.

PASSED AND ADOPTED by a _____ vote of the Mayor and City Council of the City of North Miami, Florida, this _____ day of _____, 2013.

_____
LUCIE M. TONDREAU
MAYOR

ATTEST:

_____
MICHAEL A. ETIENNE, ESQ.
CITY CLERK

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

_____
REGINE M. MONESTIME
CITY ATTORNEY

SPONSORED BY: CITY ADMINISTRATION

Moved by: _____

Seconded by: _____

Vote:

Mayor Lucie M. Tondreau	_____ (Yes)	_____ (No)
Vice Mayor Scott Galvin	_____ (Yes)	_____ (No)
Councilperson Carol Keys, Esq.	_____ (Yes)	_____ (No)
Councilperson Philippe Bien-Aime	_____ (Yes)	_____ (No)
Councilperson Marie Erlande Steril	_____ (Yes)	_____ (No)

North Miami - SRF Clean Water Project Matrix

Project Name	Description	Pump Station	Cost	Sanitary Sewer Rehab (SSES)	LF	Cost ($60 LF)	Total
B (PS-02)	Increase station discharge piping and forcemain from existing 8-inch to 10-inch. Install 1,450 lf of 10-inch forcemain.	PS-02B	386,000.00				386,000.00
E (PS-04)	Decrease I/I through basin-wide lining program. I/I must be reduced to at least 3,000 GPD/IDM.	PS-04E	450,000.00	Basin E	40,689	2,441,340	2,891,340.00
H (PS-07)	Construct forcemain (3,000 lf) to bypass the 18" gravity sewer segment and discharge to the 24" gravity sewer. Once forcemain extension is constructed, pump capacity must be increased to handle higher pressures. Replace two existing 24.5 HP pumps, and install two 34.5 HP pumps.	PS-07H	1,139,000.00				1,139,000.00
K Industrial (PS-20)	Increase station discharge piping and forcemain (190 lf) from existing 8-inch to 10-inch. Increase pumping capacity. Remove existing pumps and install two 21.5 HP pumps or greater.	PS 20-K	307,000.00				
Hospital (PS-24)	Increase station discharge piping and forcemain (50 linear feet) from existing 6-inch to 10-inch. Increase pumping capacity. Remove existing pumps and install two 30 HP pumps or greater. Replacement of existing wetwell will be required to accommodate new pumps. Upgrade electrical service to 480-volt.	PS 24	552,000.00				552,000.00
Futura (PS-40)	Increase station discharge piping and forcemain (330 lf) from existing 4-inch to 10-inch.	PS 40	206,000.00	Basin Futura (PS40	4,417	265,020	471,020.00
Gravity Sewer Interceptor Upstream of I (PS-08)	Increase gravity sewer interceptor 8-inch section (roughly 700 lf) to 12-inch, upstream of PS I. Install approximately 700 lf of 12-inch gravity sewer.	PS 08-I	201,000.00	Basin I	1,869	112,140	313,140.00
Sans Souci 3 (PS-12)	The City has increased existing 4-inch forcemain to 8-inch (construction completed May 2010). With forcemain upgrades as an existing condition, recommendation is to increase pumping capacity. Remove existing pumps. Replacement of existing wetwell will be required to accommodate new pumps. Install two 30 HP pumps. Upgrade electrical service to 480-volt.	PS-12	542,000.00				542,000.00
San Souci 1 (PS-10)	Increase pumping capacity. Remove existing pumps, an install two 25 HP pumps. Replacement of existing wetwell will be required to accommodate new pumps. Upgrade electrical service to 480-volt.	PS-10	542,000.00				542,000.00
Upgrade of 8-inch FM along Biscayne Blvd. to 12-inch.	Increase forcemain piping along Biscayne Blvd. from existing 8-inch to 12-inch. Install roughly 7,500 lf of 12-inch forcemain from NE 105th Street along Biscayne Blvd to NE 119th Street.	FM	1,345,000.00				1,345,000.00

Project Name	Description	Pump Station	Cost	Sanitary Sewer Rehab (SSES)	LF	Cost ($60 LF)	Total
Installation of 12-inch FM and redirection of Private Pump Station Flow from Biscayne Blvd.	Redirect private pump station flow along Biscayne Blvd. to connection point downstream NE 105th Street. Install roughly 500 lf of 12" forcemain from Biscayne Blvd. along NE 119th Street to the NE 16th Ave. point of connection.	PS	155,000.00				155,000.00
Northshore Hospital - 12-inch FM	Increase FM piping along NW 12th AVE from existing 6" to 16". Install 8,000 LF of 16" FM NW 95th St to NW 125th St Along NW 12th Ave.	FM	1,100,000.00		0		1,100,000.00
Bellows				Bellows	2,014	120,840	120,840.00
Woods				Woods	10,694	641,640	641,640.00
Quayside				Quayside	5,354	321,240	321,240.00
Rodan				Rodan	528	31,680	31,680.00
FIU-West	(No longer City Pump Statioin)			FIU-West	0	-	-
Noel				Noel	903	54,180	54,180.00
Arch Creek Plaza				Arch Creek Plaza	876	52,560	52,560.00
Basin KP-1 (PS 18 + 20)				Basin KP-1 (PS 18 -	1,072	64,320	64,320.00
			6,925,000.00			4,104,960	11,029,960.00

Projects (Clean Water- WW)	FY13						FY13	FY14												FY14	FY15	
	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14
Pump Station 02-B	Kimley-Horn Design Phase				Bidding			Construction													
Pump Station 04-E						Design									Bidding					Construction	
Pump Station 07-H	Kimley-Horn Design Phase				Bidding			Construction													
Pump Station 20K (Industrial)													Design Phase					Bidding			Construc
Pump Station 24 (Hospital)													Design Phase					Bidding			Construc
Pump Station 40 (Futura)													Design Phase					Bidding			Construc
Pump Station 10 (San Souci 1)													Design Phase					Bidding			Construc
Pump Station 12 (San Souci 3)													Design Phase					Bidding			Construc
Upgrade of Gravity Sewer upstream of - Pump Station 08-I													Design Phase					Bidding			Construc
Upgrade of 8" Force Main along Biscayne Blvd. to 12"	EAC Design Phase				Bidding			Construction													
Re-Direction of Private Pump Station Flow to Biscayne Blvd. to 12"	EAC Design Phase							Construction													
Upgrade of 6" Force Main along NW 12th Ave. to 16"						Design				Bidding			Construction								
SSES Projects																					
Bellows			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Woods			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Quayside			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Rodan			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Noel			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Arch Creek Plaza			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Basin E			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Basin I			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Basin KP1			CCTV Inspection			Engineering Evaluation									Bidding					Construction	
Futura			CCTV Inspection			Engineering Evaluation									Bidding					Construction	

APPENDIX 7

- Capital Financing Plan and Financial Documentation

CAPITAL FINANCING PLAN

WW-02b

City of North Miami
(Project Sponsor)
Stephen Johnson, City Manager
(Authorized Representative and Title)
North Miami, Florida 33161
(City, State, and Zip Code)

Aleem A. Ghany PE, Director of Utilities
(Capital Financing Plan Contact, Title and Telephone Number)
776 NE 125 Street, 3rd Floor
(Mailing Address)
North Miami, Florida 33161
(City, State, and Zip Code)

The Department needs to know about the financial capabilities of potential State Revolving Fund (SRF) loan applicants. Therefore, a financial capability demonstration (and certification) is required well before the evaluation of the actual loan application.

The sources of revenues being dedicated to repayment of the SRF loan are Water and Wastewater Enterprise Funds
(Note: Projects pledging utility operating revenues should attach a copy of the existing/proposed rate ordinance)

Estimate of Proposed SRF Loan Debt Service

Capital Cost*	**13,235,952**
Loan Service Fee (2% of capital cost)	**271,919**
Subtotal	**13,507,871**
Capitalized Interest**	**360,018**
Total Cost to be Amortized	**13,867,889**
Interest Rate***	**1.36**
Annual Debt Service	**796,642**
Annual Debt Service Including Coverage Factor****	**916,138**

* Capital Cost = Allowance + Construction Cost (including a 10% contingency) + Technical Services after Bid Opening.
** Estimated Capitalized Interest = Subtotal times Interest Rate times construction time in years divided by two.
***20 GO Bond Rate times Affordability Index divided by 200.
**** Coverage Factor is generally 15%. However, it may be higher if other than utility operating revenues are pledged.

SCHEDULE OF PRIOR AND PARITY LIENS

List annual debt service beginning two years before the anticipated loan agreement date and continuing at least fifteen fiscal years. Use additional pages as necessary.

Identify Each Obligation

#1 Series 2008A $21,435,000	#2 SunTrust 1 - Loan $1,200,000	#3 SunTrust 2 - Loan $215,935
Coverage % 120%	Coverage % 120%	Coverage % 120%
Insured (Yes/No) Yes	Insured (Yes/No) Yes	Insured (Yes/No) Yes
# 4 SunTrust 3 - Loan $508,959	# 5 SunTrust 4 - Loan $709,181	# 6 SunTrust 5 - Loan $514,250
Coverage % 120%	Coverage % 120%	Coverage % 120%
Insured (Yes/No) Yes	Insured (Yes/No) Yes	Insured (Yes/No) Yes
# 7 SunTrust 6 - Loar $424,421	# 8 SRF Loan WW131810 $491,653	# 9 SRF Loan DW131830 $4,572,325
Coverage % 120%	Coverage % 115%	Coverage % 115%
Insured (Yes/No) Yes	Insured (Yes/No) No	Insured (Yes/No) No

Fiscal Year	Annual Debt Service (Principal + Interest)									Total Non-SRF Debt Service w/coverage	Total SRF Debt Service w/coverage
	#1	#2	#3	#4	#5	#6	#7	#8	#9		
2010	546,697	197,737	35,000	84,269	87,813	84,427	69,628			1,326,685	-
2011	3,729,900	197,736	35,000	84,269	87,809	84,428	69,627			5,146,523	-
2012		197,734	17,499	84,269	90,470	84,428	68,626			651,631	-
2013		49,434		5,826	87,811	84,425	69,629			356,550	-
2014					87,812	10,378	69,628			201,382	-
2015					87,813		69,627	29,490	280,388	188,928	356,360
2016					87,812			29,490	280,388	105,374	356,360
2017					87,812			29,490	280,388	105,374	356,360
2018								29,490	280,388	-	356,360
2019								29,490	280,388	-	356,360
2020								29,490	280,388	-	356,360
2021								29,490	280,388	-	356,360
2022								29,490	280,388	-	356,360
2023								29,490	280,388	-	356,360
2024								29,490	280,388	-	356,360
2025								29,490	280,388	-	356,360
2026								29,490	280,388	-	356,360
2027								29,490	280,388	-	356,360
2028								29,490	280,388	-	356,360
2029								29,490	280,388	-	356,360
2030								29,490	280,388	-	356,360
2031								29,490	280,388	-	356,360
2032								29,490	280,388	-	356,360
2033								29,490	280,388	-	356,360
2034								29,490	280,388	-	356,360
2035								29,490	280,388	-	356,360

SCHEDULE OF ACTUAL REVENUES AND DEBT COVERAGE FOR PLEDGED REVENUE

(Provide information for the two fiscal years preceding the anticipated date of the SRF loan agreement)

		FY 2010	FY 2011
(a)	Operating Revenues (Identify)		
	Water Revenues	$ 7,114,193	$ 7,149,794
	Sewer Revenues	$ 10,917,668	$ 10,438,614
(b)	Interest Income	$ 50,134	$ 51,997
(c)	Other Incomes or Revenues (Identify)		
	Other charges for services	$ 1,758,907	$ 1,661,025
	Capital Improvement Utility Fee	$ 3,867,373	$ 3,994,996
(d)	Total Revenues	$ 23,708,275	$ 23,296,426
(e)	Operating Expenses (excluding interest on debt, depreciation, and other non-cash items)	$ 19,574,495	$ 20,823,528
(f)	**Net Revenues (f = d – e)**	$ 4,133,780	$ 2,472,898
(g)	Debt Service (including coverage) Excluding SRF Loans	$ 651,631	$ 356,550
(h)	Debt Service (including coverage) for Outstanding SRF Loans		
(i)	**Net Revenues After Debt Service (i = f – g – h)**	$ 3,482,149	$ 2,116,348

Source: CAFR
Notes:

SCHEDULE OF PROJECTED REVENUES AND DEBT COVERAGE FOR RATE-BASED SYSTEM PLEDGED REVENUE

(Begin with the fiscal year preceding first anticipated semiannual loan payment.)

		FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
(a)	Operating Revenues (Identify)					
	Water Revenues	12,049,050	12,320,800	12,722,100	13,348,300	14,219,900
	Sewer Revenues	11,904,850	13,856,100	15,488,100	16,701,800	17,792,400
(b)	Interest Income	53,921	55,916	57,985	58,391	60,551
(c)	Other Incomes or Revenues (Identify)					
	Other Charges for Service	1,688,600	1,688,600	1,692,900	1,697,100	1,705,600
(d)	Total Revenues	**25,696,421**	**27,921,416**	**29,961,085**	**31,805,591**	**33,778,451**
(e)	Operating Expenses	19,354,900	20,231,400	21,158,200	22,145,400	23,190,100
(f)	**Net Revenues (f = d - e)**	**6,341,521**	**7,690,016**	**8,802,885**	**9,660,191**	**10,588,351**
(g)	Existing Debt Service on Non-SRF Projects (including coverage)	651,631	356,550	201,382	188,928	105,374
(h)	Existing SRF Loan Debt (including coverage)	0	0	0	356,360	356,360
(i)	**Total Existing Debt Service (I = g + h)**	**651,631**	**356,550**	**201,382**	**545,288**	**461,734**
(j)	Projected Debt Service on Non-SRF Future Projects (including coverage)	0	0	0	0	0
(k)	Projected SRF Loan Debt Service (including coverage)	0	0		0	916,138
(l)	**Total Debt Service (Existing and Projected) (l = I + j + k)**	**651,631**	**356,550**	**201,382**	**545,288**	**1,377,872**
(m)	**Net Revenues After Debt (m = f - 1)**	**5,689,890**	**7,333,466**	**8,601,503**	**9,114,903**	**9,210,479**

(n) Identify the source of the above information and explain methods used to develop the projections (*Attachment #* __1__). Include an explanation of any revenue and expense growth or other adjustments; for example, any rate increases, service growth, inflation adjustments, expense adjustments reflecting the cost of operating additional facilities, or other considerations.

(o) Are the above projections consistent with the capital improvements financing information in the accepted clean water facilities plan? __x__ Yes _____ No. If not, explain on *Attachment #* ____.

CERTIFICATION

I, _____ , certify that I have reviewed the information
Chief Financial Officer (please print)

included in the preceding capital financing plan worksheets, and to the best of my knowledge, this information accurately reflects the financial capability of _____
Project Sponsor

I further certify that _____ has the financial capability to ensure
Project Sponsor

adequate construction, operation, and maintenance of the system, including this SRF project.

_____ Signature

_____ Date

Attachment 1

CAFR 2010/2011

Rate Study

Project Cost Worksheet

ATTACHMENT 1

Projected Revenue and Debt

	2012	2013	2014	2015	2016
Water:	11,953,400	12,079,200	12,351,600	12,785,700	13,415,000
	95,650	241,600	370,500	562,600	804,900
	12,049,050	12,320,800	12,722,100	13,348,300	14,219,900
Sewer:	11,074,300	11,934,600	13,890,700	15,565,500	16,785,300
	830,550	1,921,500	1,597,400	1,136,300	1,007,100
	11,904,850	13,856,100	15,488,100	16,701,800	17,792,400
Interest Income:	53,921	55,916	57,985	58,391	60,551
Other Revenues:	1,688,600	1,688,600	1,692,900	1,697,100	1,705,600
Total System:	**25,696,421**	**27,865,500**	**29,903,100**	**31,747,200**	**33,717,900**
Total Expenses:	19,354,900	20,231,400	21,158,200	22,145,400	23,190,100
Net:	**6,341,521**	**7,634,100**	**8,744,900**	**9,601,800**	**10,527,800**

ACTUAL

	2010	2011
Water Sales	7,114,193	7,149,794
Sewer	2,002,229	1,987,092
Sewage	8,915,439	8,451,522
	18,031,861	17,588,408
Capital Improvement Utility Fee	3,867,373	3,994,996
Other charges for services	1,758,907	1,661,025
Interest Income	50,134	51,997
Total Revenue	23,708,275	23,296,426
Total Operationg Expenses	21,017,576	22,051,551
Depreciation	(1,443,081)	(1,228,023)
Total Operation Expenses	19,574,495	20,823,528

CITY OF NORTH MIAMI, FLORIDA

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
PROPRIETARY FUNDS

FISCAL YEAR ENDED SEPTEMBER 30, 2010

	Business-type Activities - Enterprise Funds				Governmental Activities- Internal Service Funds
	Water and Sewer Utility	Solid Waste Services	Stormwater Utility	Totals	
Operating revenues:					
Metered water sales	$ 7,114,193	$ -	$ -	$ 7,114,193	$ -
Sanitary sewer sales	2,002,229	-	-	2,002,229	-
Sewage treatment charges	8,915,439	-	-	8,915,439	-
Solid waste services	-	6,761,121	-	6,761,121	-
Stormwater charges	-	-	2,424,453	2,424,453	-
Motor vehicle charges	-	-	-	-	2,241,852
Capital improvement utility fee	3,867,373	-	-	3,867,373	-
Other charges for services	1,758,907	-	-	1,758,907	2,007,138
Total operating revenues	23,658,141	6,761,121	2,424,453	32,843,715	4,248,990
Operating expenses:					
Personal services	3,883,102	2,209,127	517,020	6,609,249	1,412,234
Sewage disposal and water charges	9,261,540	-	-	9,261,540	-
Solid waste disposal fees	-	1,493,288	-	1,493,288	-
Claims	-	-	-	-	4,180,441
Materials, supplies, services and other operating expenses	6,429,853	1,931,758	1,157,912	9,519,523	2,595,205
Depreciation	1,443,081	578,857	416,616	2,438,554	632,811
Total operating expenses	21,017,576	6,213,030	2,091,548	29,322,154	8,820,691
Operating income (loss)	2,640,565	548,091	332,905	3,521,561	(4,571,701)
Non-operating revenues (expenses):					
Interest income	50,134	-	-	50,134	5,837
Grants	327,996	-	2,059	330,055	-
Interest expense and fiscal charges	(224,734)	(46,287)	(210,704)	(481,725)	-
Amortization of bond premium	-	-	13,298	13,298	-
Amortization of issuance costs	(15,684)	-	(5,287)	(20,971)	-
Miscellaneous	67,622	9,559	264	77,445	611,913
Total non-operating revenues (expense)	205,334	(36,728)	(200,370)	(31,764)	617,750
Income (loss) before contributions and transfers	2,845,899	511,363	132,535	3,489,797	(3,953,951)
Capital contributions	251,885	-	-	251,885	-
Transfers in	-	63,127	-	63,127	-
Transfers out	(133,507)	(106,231)	(18,662)	(258,400)	(54,192)
Total contributions and transfers	118,378	(43,104)	(18,662)	56,612	(54,192)
Change in net assets	2,964,277	468,259	113,873	3,546,409	(4,008,143)
Net assets, beginning	42,857,601	1,538,983	8,264,227	52,660,811	2,327,062
Net assets, ending	$ 45,821,878	$ 2,007,242	$ 8,378,100	$ 56,207,220	$ (1,681,081)

See notes to basic financial statements.

CITY OF NORTH MIAMI, FLORIDA

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
PROPRIETARY FUNDS

FISCAL YEAR ENDED SEPTEMBER 30, 2011

	Business-type Activities - Enterprise Funds				Governmental Activities-Internal Service Funds
	Water and Sewer Utility	Solid Waste Services	Stormwater Utility	Totals	
Operating revenues:					
Metered water sales	$ 7,149,794	$ -	$ -	$ 7,149,794	$ -
Sanitary sewer sales	1,987,092	-	-	1,987,092	-
Sewage treatment charges	8,451,522	-	-	8,451,522	-
Solid waste services	-	6,635,169	2,408,384	9,043,553	-
Stormwater charges	-	-	-	-	-
Motor vehicle charges	-	-	-	-	2,376,456
Capital improvement utility fee	3,994,996	-	-	3,994,996	-
Other charges for services	1,661,025	-	-	1,661,025	1,867,616
Total operating revenues	23,244,429	6,635,169	2,408,384	32,287,982	4,244,072
Operating expenses:					
Personal services	3,648,683	1,956,575	572,424	6,177,682	1,156,740
Sewage disposal and water charges	10,639,149	-	-	10,639,149	-
Solid waste disposal fees	-	1,455,973	-	1,455,973	-
Claims	-	-	-	-	925,753
Materials, supplies, services and other operating expenses	6,535,696	1,982,716	1,231,578	9,749,990	2,839,615
Depreciation	1,228,023	245,919	426,355	1,900,297	538,605
Total operating expenses	22,051,551	5,641,183	2,230,357	29,923,091	5,460,713
Operating income (loss)	1,192,878	993,986	178,027	2,364,891	(1,216,641)
Non-operating revenues (expenses):					
Interest income	51,997	-	-	51,997	2,741
Grants	521,471	-	-	521,471	-
Interest expense and fiscal charges	(145,278)	-	(203,164)	(348,442)	-
Amortization of bond premium	-	-	-	-	-
Amortization of issuance costs	-		-	-	-
Miscellaneous	169,158	27,807	2,891	199,856	229,774
Total non-operating revenues (expense)	597,348	27,807	(200,273)	424,882	232,515
Income (loss) before contributions and transfers	1,790,226	1,021,793	(22,246)	2,789,773	(984,126)
Capital contributions	5,110	-	-	5,110	-
Transfers in	106,200	69,200	-	175,400	-
Transfers out	(129,834)	(65,339)	(18,809)	(213,982)	(33,143)
Total contributions and transfers	(18,524)	3,861	(18,809)	(33,472)	(33,143)
Change in net assets	1,771,702	1,025,654	(41,055)	2,756,301	(1,017,269)
Net assets (deficit), beginning	45,821,878	2,007,242	8,378,100	56,207,220	(1,681,081)
Net assets (deficit), ending	$ 47,593,580	$ 3,032,896	$ 8,337,045	$ 58,963,521	$ (2,698,350)

See notes to basic financial statements.

Table 37 Comparison of the Combined System Revenue and Revenue

Line	Description	For the Fiscal Year Ended: 2012	2013	2014	2015	2016
	COMBINED SYSTEM					
	REVENUES					
	Revenues Under Existing Rates:					
1	Water	$ 11,953,400	$ 12,079,200	$ 12,351,600	$ 12,785,700	$ 13,415,000
2	Sewer	11,074,300	11,934,600	13,890,700	15,565,500	16,785,300
3	**Total System**	$ 23,027,700	$ 24,013,800	$ 26,242,300	$ 28,351,200	$ 30,200,300
	Percent Rate Increase:					
4	Water	1.60%	2.00%	3.00%	4.40%	6.00%
5	Sewer	15.00%	16.10%	11.50%	7.30%	6.00%
6	**Total System**	8.00%	9.00%	7.50%	6.00%	6.00%
	Actual Rate Increase:					
7	Implementation Period	*6 months*	*12 months*	*12 months*	*12 months*	*12 months*
8	Water	$ 95,650	$ 241,600	$ 370,500	$ 562,600	$ 804,900
9	Sewer	830,550	1,921,500	1,597,400	1,136,300	1,007,100
10	**Total System**	$ 926,200	$ 2,163,100	$ 1,967,900	$ 1,698,900	$ 1,812,000
11	**Revenues Under Proposed Rates**	$ 23,953,900	$ 26,176,900	$ 28,210,200	$ 30,050,100	$ 32,012,300
12	**Total Other Revenues**	$ 1,688,600	$ 1,688,600	$ 1,692,900	$ 1,697,100	$ 1,705,600
13	**Total System Revenues**	$ 25,642,500	$ 27,865,500	$ 29,903,100	$ 31,747,200	$ 33,717,900
	OPERATING EXPENDITURES					
	O&M Expenses:					
14	Contractual Services	$ 2,956,400	$ 3,144,600	$ 3,347,400	$ 3,566,700	$ 3,803,500
15	Utility Equipment Maintenance	1,081,200	1,146,800	1,216,700	1,291,200	1,370,700
16	Water Plant	4,802,800	4,949,300	5,105,200	5,277,400	5,460,400
17	W&S Special Projects	0	0	0	0	0
18	Water Distribution	1,383,000	1,458,300	1,537,800	1,621,700	1,710,300
19	Sewer Collection and Disposal	9,131,500	9,532,400	9,951,100	10,388,400	10,845,200
20	Sewer Projects	0	0	0	0	0
21	**Total O&M Expenses**	$ 19,354,900	$ 20,231,400	$ 21,158,200	$ 22,145,400	$ 23,190,100
22	**Net Revenues**	$ 6,287,600	$ 7,634,100	$ 8,744,900	$ 9,601,800	$ 10,527,800
23	**Total Debt Service**	$ 543,000	$ 721,000	$ 1,863,200	$ 1,852,800	$ 1,950,100
24	**Income Available for Other Exp.**	$ 5,744,600	$ 6,913,100	$ 6,881,700	$ 7,749,000	$ 8,577,700
	Debt Service Coverage					
25	Achieved	**11.58**	**10.59**	**4.69**	**5.18**	**5.40**
26	Target	**1.20**	**1.20**	**1.20**	**1.20**	**1.20**
	Other Expenditures & Transfers:					
27	Renewal and Replacement Fund	$ 1,884,000	$ 1,964,100	$ 2,047,600	$ 2,134,600	$ 2,225,800
28	Transfer to General Fund	1,559,600	1,559,600	1,563,500	1,567,400	1,575,300
29	Transfer to Pension Fund	167,000	174,500	182,400	191,100	200,200
30	Reserve for Employee Benefits	279,400	299,000	319,900	342,300	366,300
31	Rate Stabilization Fund	641,500	641,500	642,900	644,400	647,500
32	**Total Other Exp. & Transfers**	$ 4,531,500	$ 4,638,700	$ 4,756,300	$ 4,879,800	$ 5,015,100
33	**Total Revenue Requirements**	**$ 24,429,400**	**$ 25,591,100**	**$ 27,777,700**	**$ 28,878,000**	**$ 30,155,300**
34	**Operating Surplus/Deficit**	**$ 1,213,100**	**$ 2,274,400**	**$ 2,125,400**	**$ 2,869,200**	**$ 3,562,600**
	Fund Balance:					
35	Beginning Fund Balance	$ 12,300	$ 1,225,400	$ 2,999,800	$ 2,579,700	$ 4,448,900
36	Operating Surplus	1,213,100	2,274,400	2,125,400	2,869,200	3,562,600
37	Cash Funding of Capital Projects	0	(500,000)	(2,545,500)	(1,000,000)	0
38	**Ending Fund Balance**	**$ 1,225,400**	**$ 2,999,800**	**$ 2,579,700**	**$ 4,448,900**	**$ 8,011,500**
39	**Days Fund Balance on Hand**	**23**	**53**	**44**	**72**	**124**

Project Cost Worksheet

City of North Miami

CW - Clean Water FP

Item	%	Amount
Construction, Equipment, Materials and Demolition		11,029,960
Eligible Land		0
Other (Allowance)		
Contingency Percentage/Amount	10%	1,102,996
Technical Services	10%	1,102,996
Special Studies		0
Total		**13,235,952**
		-
Years to Construct		4.0
Anticipated Interest Rate		1.36%
Anticipated Capitalized Interest		360,018
TOTAL		**13,595,970**
Fees	2%	271,919
Total for Amortization		**13,867,889**

Draft Interest Amortization

Loan Amount (**pv**)[1]	$13,867,889
Interest Rate (**rate**)	1.36%
Total # of Periods (**Nper**)	20

Payment per Period	**$796,641.62**
Total Interest Paid	**$ 2,064,943.13**

Period	Payment Amount	Interest	Cumulative Interest	Principal	Principal Paid	Balance
						$ 13,867,889.29
1	796,641.62	188,603.29	188,603.29	608,038.33	608,038.33	13,259,850.97
2	796,641.62	180,333.97	368,937.27	616,307.65	1,224,345.97	12,643,543.32
3	796,641.62	171,952.19	540,889.46	624,689.43	1,849,035.41	12,018,853.89
4	796,641.62	163,456.41	704,345.87	633,185.21	2,482,220.61	11,385,668.68
5	796,641.62	154,845.09	859,190.96	641,796.53	3,124,017.14	10,743,872.15
6	796,641.62	146,116.66	1,005,307.62	650,524.96	3,774,542.10	10,093,347.19
7	796,641.62	137,269.52	1,142,577.15	659,372.10	4,433,914.20	9,433,975.09
8	796,641.62	128,302.06	1,270,879.21	668,339.56	5,102,253.76	8,765,635.53
9	796,641.62	119,212.64	1,390,091.85	677,428.98	5,779,682.74	8,088,206.55
10	796,641.62	109,999.61	1,500,091.46	686,642.01	6,466,324.75	7,401,564.54
11	796,641.62	100,661.28	1,600,752.74	695,980.34	7,162,305.09	6,705,584.20
12	796,641.62	91,195.95	1,691,948.68	705,445.68	7,867,750.77	6,000,138.52
13	796,641.62	81,601.88	1,773,550.57	715,039.74	8,582,790.51	5,285,098.79
14	796,641.62	71,877.34	1,845,427.91	724,764.28	9,307,554.78	4,560,334.51
15	796,641.62	62,020.55	1,907,448.46	734,621.07	10,042,175.86	3,825,713.44
16	796,641.62	52,029.70	1,959,478.16	744,611.92	10,786,787.77	3,081,101.52
17	796,641.62	41,902.98	2,001,381.14	754,738.64	11,541,526.41	2,326,362.88
18	796,641.62	31,638.54	2,033,019.68	765,003.09	12,306,529.50	1,561,359.79
19	796,641.62	21,234.49	2,054,254.17	775,407.13	13,081,936.63	785,952.66
20	796,641.62	10,688.96	2,064,943.13	785,952.66	13,867,889.29	0.00

USER INTERFACE - Affordability Calculation

Summary Sheet 1

(weights: income -- 0.3454; sales tax -- 0.0; unemployment rate -- 0.2855; poverty rate -- 0.3689)

To use this form, input the census tracts of the rate payers who will be paying for the project. Typically, this will include the area currently served and the area proposed to be served by the project sponsor. Use all census tracts regardless of the amount of your service area/project in a particular census tract. Lookup the county number from Table 2 and use in the County Number column in Table 1. Your affordability index will be calculated and shown in Table 1 line 32. The population numbers shown here are not used in determining whether a sponsor is a small community. The population numbers are only used when the number of census tracts exceeds 25. When there are more than 25 census tracts a weighted average needs to be computed. To do this, input the first 25 tracts into Table 1. Use the additional Afford Worksheets to insert any additional census tracts. Continue this procedure for all census tracts. The weighted average affordability index (line 44) from Afford 1 Worksheet will be the one we'll use for your project.

Project Sponsor North Miami

Project #

Table 1 - Affordability Determination

Number	County Number	Census Tract Number	Index Number	Population
1	86	4.05	74.75	4,520
2	86	4.10	66.41	5,898
3	86	3.07	70.85	5,354
4	86	3.08	70.85	5,354
5	86	3.06	70.85	5,354
6	86	3.05	74.99	7,303
7	86	2.17	71.08	9,106
8	86	2.18	71.08	9,106
9	86	2.20	71.08	9,106
10	86	2.19	71.08	9,106
11	86	1.24	80.93	1,691
12	86	2.09	72.83	7,875
13	86	1.20	80.93	1,691
14	86	1.09	75.67	1,975
15	86	12.03	70.97	7,590
16	86	12.04	82.39	5,466
17	0	0.00	0.00	0
18	0	0.00	0.00	0
19	0	0.00	0.00	0
20	0	0.00	0.00	0
21	0	0.00	0.00	0
22	0	0.00	0.00	0
23	0	0.00	0.00	0
24	0	0.00	0.00	0
25	0	0.00	0.00	0
Summary			**72.44**	**96,495**

Table 2 - County Numbers

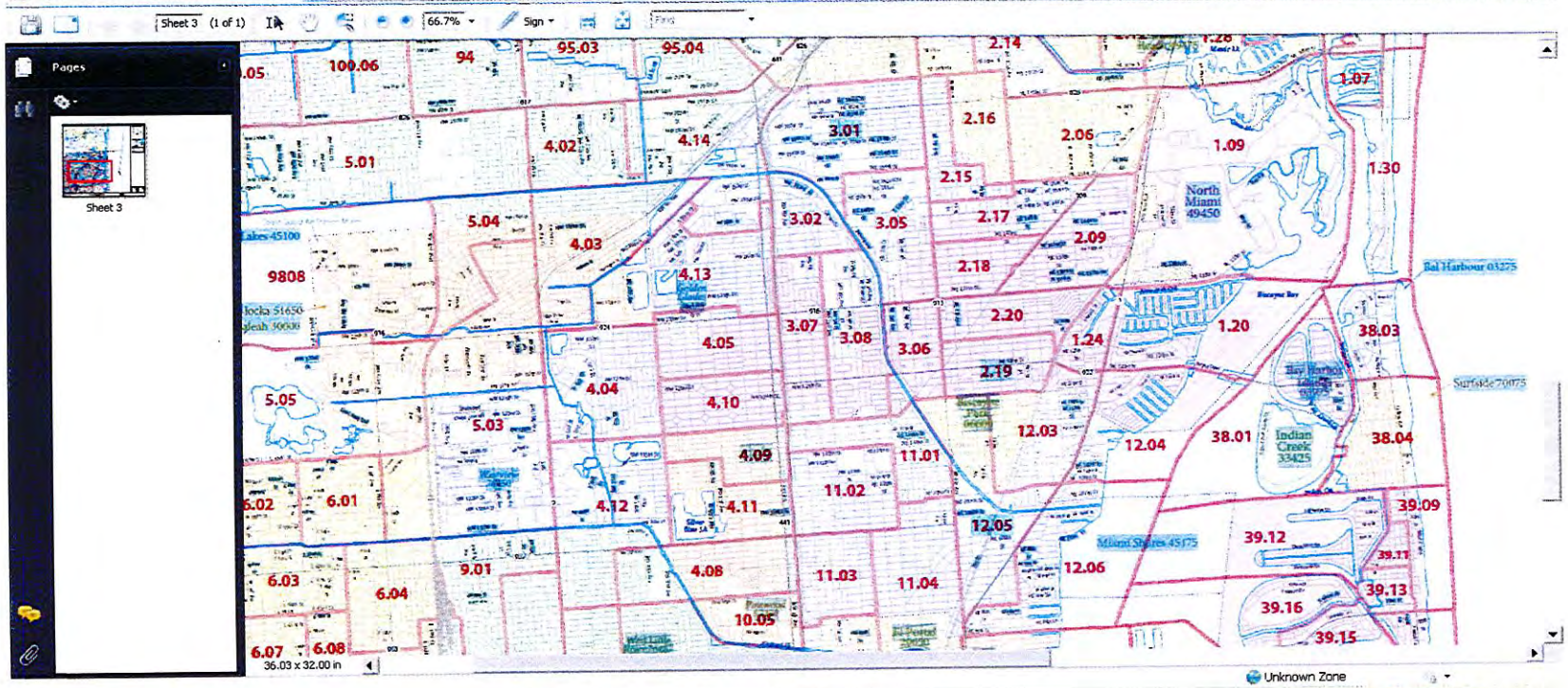
County #	County	County #	County
1	Alachua	69	Lake
3	Baker	71	Lee
5	Bay	73	Leon
7	Bradford	75	Levy
9	Brevard	77	Liberty
11	Broward	79	Madison
13	Calhoun	81	Manatee
15	Charlotte	83	Marion
17	Citrus	85	Martin
19	Clay	86	Miami-Dade
21	Collier	87	Monroe
23	Columbia	89	Nassau
27	De Soto	91	Okaloosa
29	Dixie	93	Okeechobee
31	Duval	95	Orange
33	Escambia	97	Osceola
35	Flagler	99	Palm Beach
37	Franklin	101	Pasco
39	Gadsden	103	Pinellas
41	Gilchrist	105	Polk
43	Glades	107	Putnam
45	Gulf	109	St. Johns
47	Hamilton	111	St. Lucie
49	Hardee	113	Santa Rosa
51	Hendry	115	Sarasota
53	Hernando	117	Seminole
55	Highlands	119	Sumter
57	Hillsborough	121	Suwannee
59	Holmes	123	Taylor
61	Indian River	125	Union
63	Jackson	127	Volusia
65	Jefferson	129	Wakulla
67	Lafayette	131	Walton
		133	Washington

Table 3 - Weighted Average Affordability Index

	Index Number	Population
Summary 1	72.44	96,495
Summary 2	0.00	-
Summary 3	0.00	-
Summary 4	0.00	-
Summary 5	0.00	-
Summary 6	0.00	-
Weighted Average	72.43812	96,495

Bond Buyer 20-Bond GO Index Rat	3.76%
Financing Rate (Summary) =	1.36%
Financing Rate (Weighted Avg) =	1.36%

http://www2.census.gov/geo/maps/dc10map/tract/st12_fl/c12086_miami-dade/DC10CT_C12086_003.pdf - Windows Internet Explorer



Ghany, Aleem

From: Westlake, Brendalee [WestlakeB@bv.com]
Sent: Monday, July 08, 2013 10:18 AM
To: Pierre-Louis, Wisler; Bryant, Thomas A; Ghany, Aleem
Subject: RE: North Miami Forcemain Extension-PumpStation-07)

Good Morning Wisler,

Per our phone conversation you mentioned that all the projects identified in the Facilities Plan are located in the utility ROW. Could you please confirm that the projects provided in the list below are all located in the utility ROW.

Thank you for your help.

Thanks,
Brenda

Pump Station 02-B
Pump Station 04-E
Pump Station 07-H
Pump Station 20K (Industrial)
Pump Station 24 (Hospital)
Pump Station 40 (Futura)
Pump Station 10 (San Souci 1)
Pump Station 12 (San Souci 3)
Upgrade of Gravity Sewer upstream of - Pump Station 08-I
Upgrade of 8" Force Main along Biscayne Blvd. to 12"
Re-Direction of Private Pump Station Flow to Biscayne Blvd. to 12"
Upgrade of 6" Force Main along NW 12th Ave. to 16"
Bellows
Woods
Quayside
Rodan
Noel
Arch Creek Plaza
Basin E
Basin I
Basin KP1
Futura

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Black & Veatch Corporation | 9925 50TH Street Circle East, Parrish, FL 34219
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From: Pierre-Louis, Wisler [mailto:PWisler@northmiamifl.gov]
Sent: Thursday, June 27, 2013 11:55 AM
To: Bryant, Thomas A; Ghany, Aleem
Cc: Westlake, Brendalee
Subject: RE: North Miami Forcemain Extension-PumpStation-07)

Good morning,

Please see responses below in red.

Thanks

From: Bryant, Thomas A [mailto:BryantTA@bv.com]
Sent: Thursday, June 27, 2013 9:02 AM
To: Ghany, Aleem; Pierre-Louis, Wisler
Cc: Westlake, Brendalee
Subject: FW: North Miami Forcemain Extension-PumpStation-07)

Hello Aleem and Wisler,

Please see the request below from project manager Mahnaz of the FDEP. Your response to her question would be greatly appreciated as she is trying to expedite approval of the Facilities Plan on your behalf. Thanks!

Tom Bryant

From: Massoudi, Mahnaz [mailto:Mahnaz.Massoudi@dep.state.fl.us]
Sent: Wednesday, June 26, 2013 4:19 PM
To: Bryant, Thomas A
Cc: Westlake, Brendalee
Subject: RE: North Miami Forcemain Extension-PumpStation-07)

Hi Tom,
I still need the answers to the questions in my below e-mail dated June 21st. Please let me know ASAP.
Thanks
Mahnaz

From: Massoudi, Mahnaz
Sent: Friday, June 21, 2013 12:14 PM
To: 'Westlake, Brendalee'
Cc: Bryant, Thomas A
Subject: RE: North Miami Forcemain Extension-PumpStation-07)

Hi Brenda,
As I mentioned it to you yesterday, the Section 5.1.3, Project 3 – H (Pump Station – 07) in the Planning document stated that:

"**Construct** forcemain (3,000 linear feet) to bypass the 18-inch gravity sewer segment and discharge to the 24-inch gravity sewer. Once forcemain **extension** is constructed, pump capacity must be increased to handle higher pressures. Replace two existing 24.5 HP pumps, and install two 34.5 HP pumps."

From: Massoudi, Mahnaz [mailto:Mahnaz.Massoudi@dep.state.fl.us]
Sent: Thursday, June 20, 2013 3:48 PM
To: Westlake, Brendalee
Subject: RE: North Miami Excessive infiltration and inflow

Hi Brenda,
Does North Miami have excessive infiltration and inflow (I/I) or they have just I/I?
Thanks
Mahnaz

From: Westlake, Brendalee [mailto:WestlakeB@bv.com]
Sent: Monday, June 17, 2013 3:41 PM
To: Massoudi, Mahnaz
Subject: FW: North Miami SSES

Hi Mahnaz, my work number is no longer valid; you can reach me anytime on my cell at 941-348-8364 or at 941-776-8449 (home).

Thanks,

BRENDA WESTLAKE | Management Consulting Division
Black & Veatch Corporation | 9925 50TH Street Circle East, Parrish, FL 34219
+ 1 941.348.8364 p | westlakeb@BV.com
Building a World of Difference.

Please consider the environment before printing my e-mail
Please note that the information and attachments in this email are intended for the exclusive use of the addressee and may contain confidential or privileged information. If you are not the intended recipient, please do not forward, copy or print the message or its attachments. Notify me at the above address, and delete this message and any attachments. Thank you

From: Bryant, Thomas A
Sent: Monday, June 17, 2013 2:59 PM
To: Massoudi, Mahnaz
Subject: RE: North Miami SSES

Westlake Brendalee
Black & Veatch Corporation
Employee
6705
(941) 301-1175 Work
(941) 348-8364 Mobile
(941) 776-8449 Home
WestlakeB@bv.com
11401 Lamar
Overland Park, KS 66211

From: Massoudi, Mahnaz [mailto:Mahnaz.Massoudi@dep.state.fl.us]
Sent: Monday, June 17, 2013 10:51 AM
To: Bryant, Thomas A
Subject: RE: North Miami SSES

Hi Tom,
Would you please give me Brenda's email and her contact number? See you today.
Thanks

Mahnaz

****
*****

Mahnaz Massoudi
Engineer IV
Florida Department of Environmental Protection
Bureau of Water & Wastewater Facilities Funding
2600 Blairstone Road
Tallahassee, Florida, 32399-2400
MS3505
Telephone: 850-245-8388
Fax: 850-245-8410
Mahnaz.Massoudi@dep.state.fl.us
http://www.dep.state.fl.us

From: Bryant, Thomas A [mailto:BryantTA@bv.com]
Sent: Friday, June 14, 2013 3:39 PM
To: Massoudi, Mahnaz
Subject: RE: North Miami SSES

Hello Mahnaz,

I received your call yesterday, however I was out of town. I am on a conference call at the moment that should be complete within 20 minutes. I will call you before 4:00 today.

Tom

From: Massoudi, Mahnaz [mailto:Mahnaz.Massoudi@dep.state.fl.us]
Sent: Friday, June 14, 2013 3:36 PM
To: Bryant, Thomas A
Subject: North Miami SSES

Hi Tom,
Would you please call me. I have a few question for you regarding the North Miami SSES.
Thanks
Mahnaz Massoudi

From: Bryant, Thomas A [mailto:BryantTA@BV.COM]
Sent: Friday, December 07, 2012 1:50 PM
To: Ghany, Aleem
Cc: Massoudi, Mahnaz
Subject: RE: DEP SRF Stormwater Funding (FDEP SW-13180)

Hello Aleem,

Mahnaz is asking if you want to pursue preconstruction activity funding for your current storm water SRF application (FDEP-SRF Storm Water 13180). If this is of interest to you, we need to reply ASAP as the upcoming FDEP hearing deadline upon us. If this is no longer viable, we need to let her know so DEP can drop 13180 from their funding list.
Thanks!

Tom Bryant
850.443.1313

From: Massoudi, Mahnaz [mailto:Mahnaz.Massoudi@dep.state.fl.us]
Sent: Friday, December 07, 2012 1:12 PM
To: Massoudi, Mahnaz; Bryant, Thomas A
Subject: RE: DEP SRF Stormwater Funding (FDEP SW-13180)

Hi Tom,
I never received the a response from you. see the below e-mail dated Nov. 13th.
Mahnaz

From: Massoudi, Mahnaz
Sent: Tuesday, November 13, 2012 2:37 PM
To: 'Bryant, Thomas A'
Subject: RE: DEP SRF Stormwater Funding (FDEP SW-13180)

Hi Tom,
Do you know what is the status for the North Miami's SW pre-construction funding. Does the City have any interest in pursuing for the SRF loan for near future or should we remove them from our list?
Thanks
Mahnaz Massoudi

****
*****

Mahnaz Massoudi
Engineer IV
Florida Department of Environmental Protection
Bureau of Water & Wastewater Facilities Funding
2600 Blairstone Road
Tallahassee, Florida, 32399-2400
MS3505
Telephone: 850-245-8388
Fax: 850-245-8410
Mahnaz.Massoudi@dep.state.fl.us
http://www.dep.state.fl.us

From: Banks, Timothy
Sent: Tuesday, February 14, 2012 12:58 PM
To: 'Bryant, Thomas A'
Cc: Massoudi, Mahnaz; Powell, Gary
Subject: RE: DEP SRF Stormwater Funding (FDEP SW-13180)

Since it is for a preconstruction loan and you would only have to send in another RFI anyway, I think we will leave it on until the next hearing.

Please take a few minutes to share your comments on the service you received from the department by clicking on this link DEP Customer Survey.

From: Bryant, Thomas A [mailto:BryantTA@BV.COM]
Sent: Tuesday, February 14, 2012 12:16 PM
To: Massoudi, Mahnaz; Banks, Timothy
Cc: Ghany, Aleem; Pierre-Louis, Wisler; MMartinez@NorthMiamiFL.gov; Ray, Tami
Subject: FW: DEP SRF Stormwater Funding (FDEP SW-13180)

Hello Tim and Mahnaz,

Please accept this correspondence as the City's request of the FDEP to delay/postpone the current funding request on FDEP storm water project number SW-13180, for consideration at a future public hearing. It is the intent of Mr. Aleem Ghany, Public Works Director to reapply with the FDEP in a couple of months. Please let me know if you need additional correspondence from the City or myself on this matter. Your support of the City is greatly appreciated.

Regards,

Tom Bryant

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- Please explain if this construction and extension involves a water pollution control system that does involve acquisition of undisturbed land and water pollution control facilities in an area where streets have been established, underground utilities installed, or building sites excavated. This project involves a stormwater pollution prevention plan that does not require any acquisitions.

- Does this forcemain extension need a FDEP permit? Yes.

- Does the other proposed projects in the planning documents need any FDEP permit? Yes. If yes, which one? What is the status of each permit?

B (PS-02), Permit application completed.
K Industrial (PS-20), Procuring designer.
Hospital (PS-24), Procuring designer.
Gravity Sewer Interceptor Upstream of I (PS-08), Procuring designer.
Upgrade of 8-inch FM along Biscayne Blvd. to 12-inch, Permit application completed.
Installation of 12-inch FM and redirection of Private Pump Station Flow from Biscayne Blvd, Permit application completed.
Northshore Hospital - 12-inch FM, Procuring designer.

Thanks
Mahnaz

From: Westlake, Brendalee [mailto:WestlakeB@bv.com]
Sent: Friday, June 21, 2013 10:02 AM
To: Massoudi, Mahnaz
Cc: Bryant, Thomas A
Subject: RE: North Miami Excessive infiltration and inflow

Good Morning Mahnaz,

Per the CDM Report there are eleven basins that exceeded RER's (Miami-Dade Department of Regulatory and Economic Resources) allowable Infiltration threshold. Four of the eleven basins identified reported high infiltration levels greater than 10,000 GPD and the remaining seven basins reported moderate infiltration levels between 5,000 and 10,000 GPD.

According to the I&I study and the SSES study, the projects listed warrant repairs to the system. Their analysis and recommendations are based on flow reports. This indicates to me that the consulting engineer believes the flow recorded is excessive and therefore warrants system repair in those tangents identified.

Thanks,

BRENDA WESTLAKE | Management Consulting Division
Black & Veatch Corporation | 9925 50TH Street Circle East, Parrish, FL 34219
+ 1 941.348.8364 **p** | westlakeb@BV.com
Building a World of Difference.

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Section 2
Data Compilation and Review

2.1 Introduction

Hazen and Sawyer compiled and reviewed all existing background information provided by the City. The data review served as a tool to identify the need for additional data and investigations required to complete the various tasks within the Master Plan.

2.2 Sources of Information

During the Data Compilation and Review, a comparison between the available sources of information and the required data for each of the tasks required for the completion of the Master Plan was carried out. Refer to Table 2.1 for a correlation between the sources of existing information provided by the City and the type of data addressed by each.

2.3 Data Collection and Review

A collaborative effort between the City and Hazen and Sawyer was undertaken to collect the data required for the generation of the Master Plan. Some of the data collected include GIS files, population projections, wastewater flows, and the existing hydraulic model. Once collected, the data was organized and analyzed to extract all useful information. The following sections summarize the results of this activity. The information collected and reviewed is the basis for the description and understanding of the existing sanitary sewer system of the City of North Miami.

Table 2.1
List of Available Information and Data Type

No.	H&S Document ID	Information Requested	Author	Status	Population Studies	Existing Land Use	Projected Land Use	Wastewater Flow Projections	I/I Assessment	Modeling	Capital and O&M Costs	Funding
1	44225-001	Water/Wastewater Billing Records, 2006-2008	City of North Miami	Provided	X			X		X		
2	44225-002	Existing Land Use Map (GIS file)	City of North Miami	Provided	X	X	X	X				
3	44225-003	Vacant Land Use Map by Future Land Use (GIS file)	City of North Miami	Provided	X	X	X	X		X		
4	44225-004	Parcels Layer (GIS file)	City of North Miami	Provided	X	X	X	X		X		
5	44225-005	Streets (GIS file)	City of North Miami	Provided		X	X	X		X		
6	44225-006	City Limits (GIS file)	City of North Miami	Provided		X	X	X		X		
7	44225-007	Hydrants (GIS file)	City of North Miami	Provided								
8	44225-008	Valves (GIS file)	City of North Miami	Provided		X				X		
9	44225-009	Leaks (GIS file)	City of North Miami	Provided		X			X	X	X	X
10	44225-010	Water Leaks (GIS file)	City of North Miami	Provided								
11	44225-011	Water Lines (GIS file)	City of North Miami	Provided						X		
12	44225-012	6andUp (pipes) (GIS file)	City of North Miami	Provided					X	X	X	X
13	44225-013	Adopted Future Land Use Map (GIS file)	City of North Miami	Provided	X		X	X		X		
14	44225-014	Previously Adopted Future Land Use Map (GIS file)	City of North Miami	Provided	X	X	X	X		X		
15	44225-015	TCEA Boundary Map (GIS file)	City of North Miami	Provided	X	X	X	X		X		
16	44225-016	Pump Stations (GIS file)	City of North Miami	Provided	X	X	X			X	X	X
17	44225-017	Private Pump Stations (GIS file)	City of North Miami	Provided	X	X	X			X		
18	44225-018	Gravity Lines (GIS file)	City of North Miami	Provided					X	X	X	X
19	44225-019	Manholes (GIS file)	City of North Miami	Provided					X	X	X	X
20	44225-020	Force Mains (GIS file)	City of North Miami	Provided						X	X	X
21	44225-021	Basins (GIS file)	City of North Miami	Provided	X	X	X	X	X	X		
22	44225-022	Neighborhood Concept (GIS file)	City of North Miami	Provided		X	X	X		X		
23	44225-023	Water Atlas (pdf file)	City of North Miami							X		
24	44225-024	Sewer System Model – NOVRECAL, 2006 (XP-SWMM file)	Metcalf & Eddy	Provided	X					X		
25	44225-025	Sewer System Model - DEC2010, 2006 (XP-SWMM file)	Metcalf & Eddy	Provided	X					X	X	X
26	44225-026	Sewer System Model - DEC2025, 2006 (XP-SWMM file)	Metcalf & Eddy	Provided	X					X	X	X
27	44225-027	Sanitary Sewer Evaluation Survey Update - Phase III - Final Rehabilitation. Client Draft, 2006 (Study)	Metcalf & Eddy	Provided				X	X		X	X
28	44225-028	Sewer System Evaluation Survey Update - Phases I and II, 2005. (Study)	PBS&J	Provided				X	X		X	X
29	44225-029	Volume Sewer Customer Collection and Transmission System Model, Volume 13, 1999. (Study)	PBS&J	Provided				X	X		X	X

Table 2.1
List of Available Information and Data Type

No.	H&S Document ID	Information Requested	Author	Status	Population Studies	Existing Land Use	Projected Land Use	Wastewater Flow Projections	I/I Assessment	Modeling	Capital and O&M Costs	Funding
32	44225-032	North District Infiltration / Inflow Analysis. City of North Miami Service Area, 1975. (Study)	David Volkert and Associates	Provided				X	X		X	X
33	44225-033	City of North Miami. Engineers Report on Future Water Supply, 1970. (Study)	PBS&J	Provided	X			X				
34	44225-034	Department of Environmental Resources Management. City of North Miami Quality of Service Evaluation. DERM Technical Report 98-1, 1997. (Study)	DERM - Wastewater Section	Provided							X	X
35	44225-035	City of North Miami. Water and Sewer Study, 1988. (Study)	H.J. Ross Associates	Provided								
36	44225-036	City of North Miami. Pump Station Evaluation Report of Pump Stations I, E, G, Arch Greek Plaza, Hospital, F.I.U. West, K-Industrial, Small Ixora/Banyan, and Hibiscus, 2008. (Study)	PBS&J	Provided							X	X
37	44225-037	Volume Sewer Customers Collection and Transmission System Model and Peak Flow Management Study. Sheet 8/14 (Drawings)	PBS&J	Provided				X	X		X	X
38	44225-038	North Miami sewer system. (Drawing)	Unknown	Provided						X		
39	44225-039	Quayside Sewer plan, 1992. (Drawing)	Unknown	Provided						X		
40	44225-040	N.E. 6th Ave. 10" Sewer. Hand drafted drawing, 1988. (Drawing)	City of North Miami	Provided						X		
41	44225-041	North Miami NW 12 Avenue FM analysis, 1978 (Drawing)	City of North Miami	Provided						X		
42	44225-042	Water and Sewer Service Area Map. (Drawing)	Unknown	Provided						X		
43	44225-043	Quayside Sewer Plan and Capacity Analysis, 1997 (Drawing)	Unknown	Provided						X		
44	44225-044	Phase II Storm Water Master Plan, 2000	PBS&J	Provided	X			X	X			
45	44225-045	Cape Cod FM System Analysis. Hand-drafted, 1978. (Drawing)	City of North Miami	Provided						X		
46	44225-046	Design Data – Handwritten document, 1994.	City of North Miami	Provided								
47	44225-047	Handwritten capacity calculations and MS-Excel tables, 1997.	Unknown	Provided								
48	44225-048	City of North Miami Sewer Service Area, 2008.	City of North Miami	Provided		X		X	X	X		
49	44225-049	City of North Miami Proposed Annexation Areas, 2008	City of North Miami	Provided	X		X	X				
50	44225-050	City of North Miami Update to GIS, May 2009	City of North Miami	Provided						X	X	
51	44225-051	FIU East and 60 Cabins As-Builts, December 2009	City of North Miami	Provided						X	X	

2.3.1 System Layout

The transmission system consists of City-operated pumping stations, major gravity interceptors, and the force main network which transmits the wastewater flow from the gravity collection system to the connection points of the MDWASD system. The sanitary sewer system layout, including major MDWASD forcemain (highlighted in blue) and connection points are presented in Figure 2-1. Also, Figure 2-2 presents the City of North Miami Sanitary Sewer atlas provided by the City. A description of the City forcemain system can be found in Table 2.2. In this table forcemains are catagorized by material and diameter.

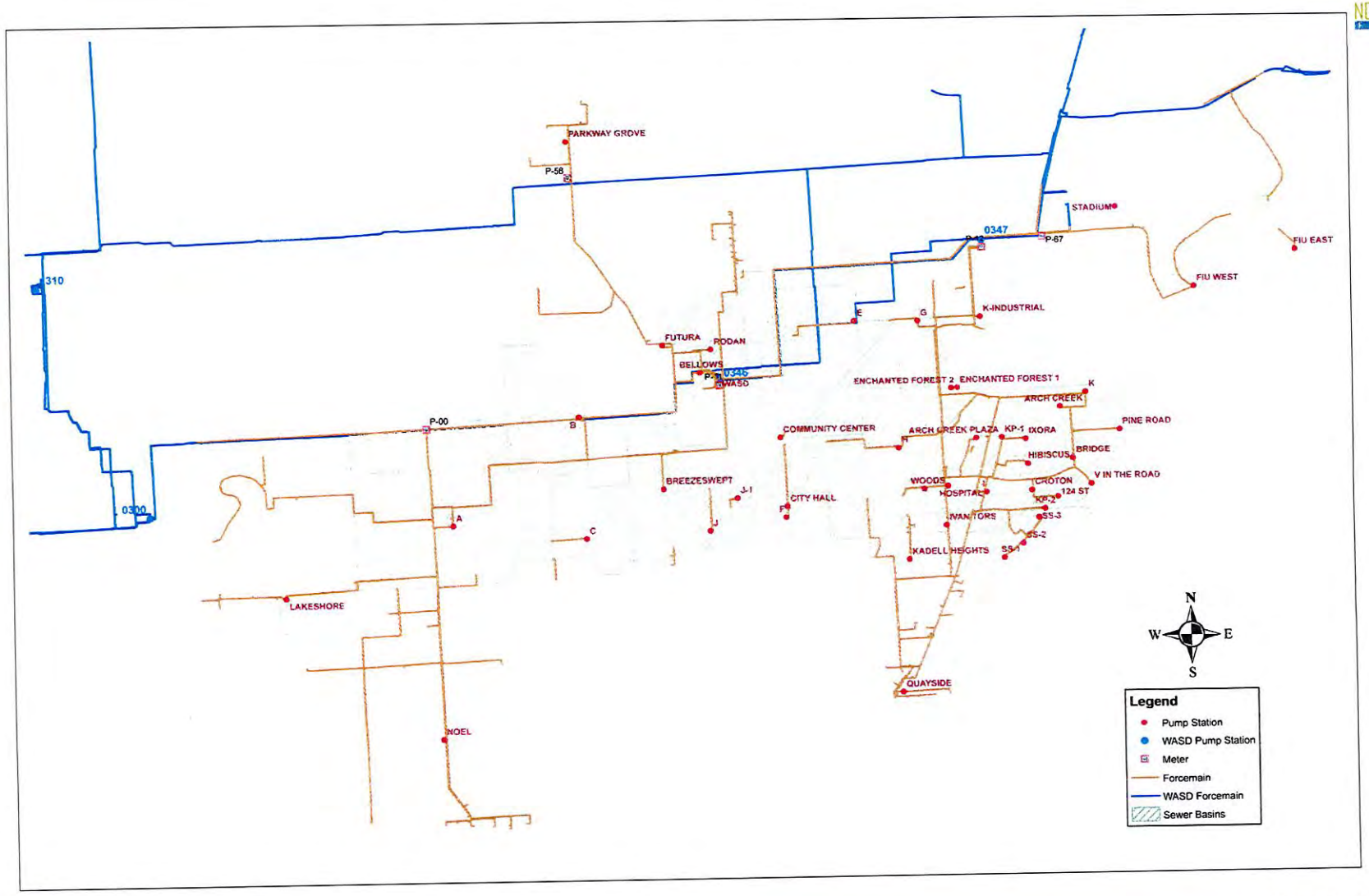

Figure 2-1
Wastewater System Layout

44225-000R6.cdr

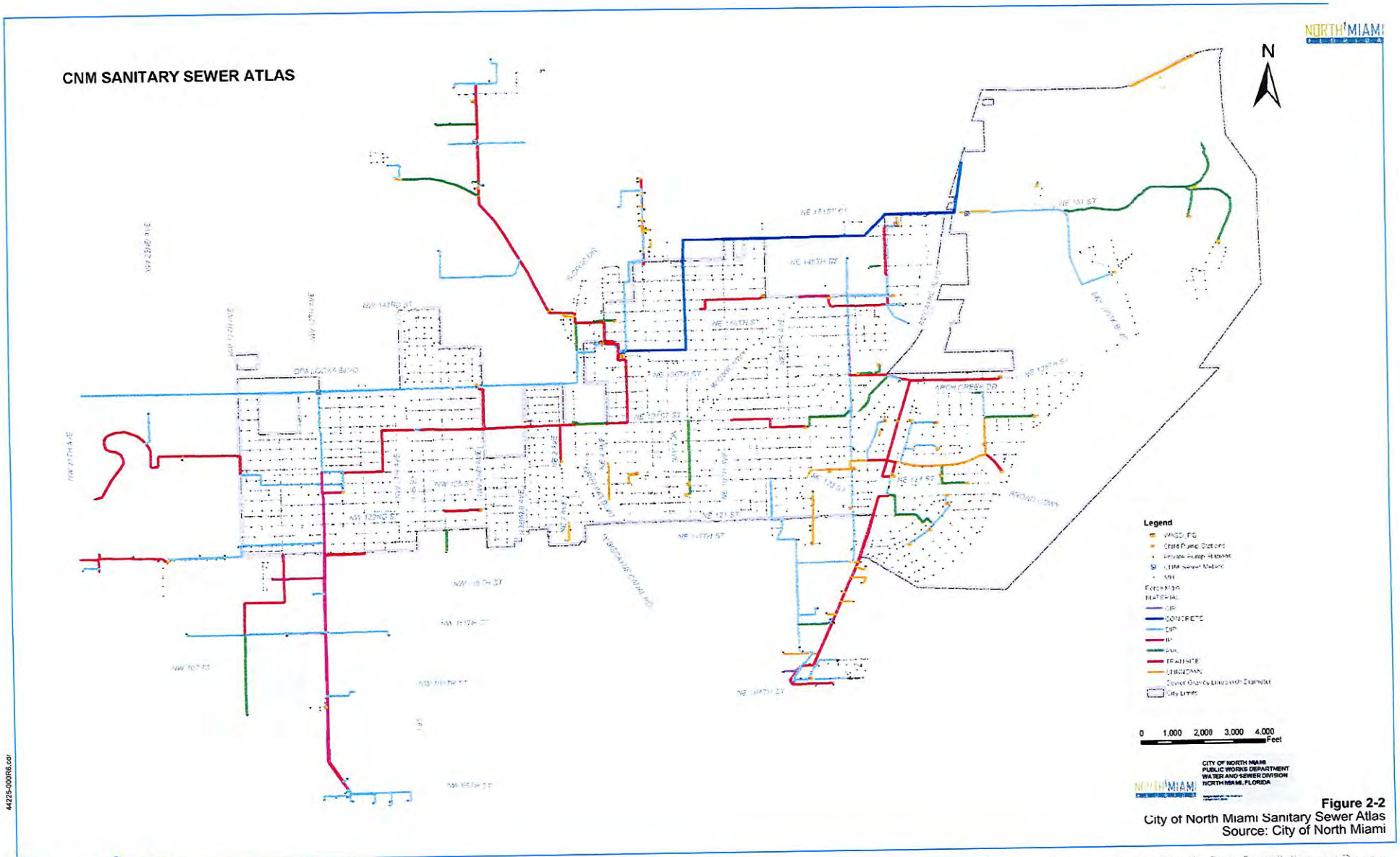

Figure 2-2
City of North Miami Sanitary Sewer Atlas
Source: City of North Miami

44225-000R6.cdr

HAZEN AND SAWYER
Environmental Engineers & Scientists

Chapter 5.0 – The Selected Plan

5.1. DESCRIPTION OF PROPOSED FACILITIES

The recommended improvements to address the existing performance issues due to aging infrastructure and inadequacies in pump performance and future performance issues and are outlined below along with structural defects. The source of this information is provided in the City of North Miami – Sanitary Sewer Master Plan dated April 2011 by Hazen & Sawyer, Sanitary Sewer Evaluation Survey (SSES) study dated December 2005 by Atkins (formerly PBS&J) and City of North Miami Second Cycle Sanitary Sewer Evaluation Survey (SSES) Phase I & II Preliminary Sewer System Survey, Sewer System Analysis and Corrective Action Plan dated March 2013 by CDM Smith.

5.1.1. Project 1 – B (Pump Station -02)

Increase station discharge piping and forcemain from existing 8-inch to 10-inch. Install 1,450 linear feet of 10-inch forcemain.

5.1.2. Project 2 – E (Pump Station – 04)

Decrease I/I through basin-wide lining program. I/I must be reduced to at least 3,000 GPD/IDM.

5.1.3. Project 3 – H (Pump Station – 07)

Construct forcemain (3,000 linear feet) to bypass the 18-inch gravity sewer segment and discharge to the 24-inch gravity sewer. Once forcemain extension is constructed, pump capacity must be increased to handle higher pressures. Replace two existing 24.5 HP pumps, and install two 34.5 HP pumps.

5.1.4. Project 4 – K Industrial (Pump Station – 20)

Increase station discharge piping and forcemain (190 linear feet) from existing 8-inch to 10-inch increase pumping capacity. Remove existing pumps and install two 21.5 HP pumps or greater.

5.1.5. Project 5 – Hospital (Pump Station -24)

Increase station discharge piping and forcemain (50 linear feet) from existing 6-inch to 10-inch increase pumping capacity. Remove existing pumps and install two 30 HP pumps or greater. Replacement of existing wetwell will be required to accommodate new pumps. Upgrade electrical service to 480-volt.

5.1.6 Project 6 – Futura (Pump Station - 40)

Increase station discharge piping and forcemain (330 linear feet) from existing 4-inch to 10-inch.

5.1.7 Project 7 – Gravity Sewer Interceptor Upstream of I (Pump Station – 08)

Increase gravity sewer interceptor 8-inch section (roughly 700 linear feet) to 12-inch, upstream of PS I. Install approximately 700 linear feet of 12-inch gravity sewer.

5.1.8 Project 8 – Sans Souci 3 (Pump Station – 12)

The City has increased existing 4-inch forcemain to 8-inch (construction completed May 2010). With forcemain upgrades as an existing condition, recommendation is to increase pumping capacity. Remove existing pumps. Replacement of existing wetwell will be required to accommodation new pumps. Install two 30 HP pumps. Upgrade to electrical service to 480-volt.

5.1.9 Project 9 – Sans Souci 1 (Pump Station – 10)

Increase pumping capacity. Remove existing pumps, and install two 25 HP pumps. Replacement of existing wetwell will be required to accommodate new pumps. Upgrade electrical service to 480-volt.

5.1.10 Project 10 – Upgrade of 8-inch FM along Biscayne Blvd. to 12-inch

Increase forcemain piping along Biscayne Blvd. from existing 8-inch to 12-inch. Install roughly 7,500 linear feet of 12-inch forcemain from NE 105th street along Biscayne Blvd. to NE 119th Street.

5.1.11 Project 11 – Installation of 12-inch Forcemain and redirection of Private Pump Station Flow from Biscayne Blvd.

Redirect private pump station flow along Biscayne Blvd. to connection point downstream of NE 105th Street. Install roughly 500 linear feet of 12" forcemain from Biscayne Blvd. along NE 119th Street to the NE 16th Ave. point of connection.

5.1.12 Project 12 – Upgrade of 6-inch FM along NW 12th Ave to 16-Inch

City has requested this project to increase forcemain piping along 12th Ave. from existing 6-inch to 16-inch. Install roughly 8,000 linear feet of 16-inch forcemain from NW 95th Street to NW 125th Street along 12th Ave.

5.1.13 Recommended Complementary Actions

There are various complementary actions that are important aspects to the City's Sewer System. The System improvements are addressed in the Master Plan under section 5.7 and briefly outlined below.

A. **Sewer Rehabilitation** – The Miami-Dade County Code mandates that Volume Sewer Customers of the Miami-Dade Water and Sewer Department (MDWASD) perform a variety of activities related to collection system assessment, rehabilitation and management. Once such requirement involves the completion of Sanitary Sewer Evaluation Surveys (SSES), followed by sewer rehabilitation and post-rehabilitation flow monitoring to access compliance with the 5,000 gallon per day-inch-mile (GPD/DIM) standard for infiltration and inflow (I-I) specified by the County Code.

   The City of North Miami has implemented a system-wide sewer condition assessment and rehabilitation program and performance various tasks including smoke testing, flow monitoring, manhole inspection, televising sanitary sewer lines, evaluating sewer video-tapes, and performing remediation efforts with in-house staff and outside contractors. This work has identified priority areas requiring rehabilitation throughout the sanitary system, and reduction of the volume of I-I in specific collection systems.

   The SSES requirements apply on a recurring ten-year cycle and the next SSES submittal is November 12, 2012.

B. **Peak Flow Reduction Programs** - An important consideration that could affect long-term flows, and the necessity of implementing remedial action plans, involves the potential to reduce peak

flows in the collection system as a result of I-I flow reduction. As discussed under section 5.6.2, the City of North Miami has implemented and continues to implement system-wide sewer condition assessment and rehabilitation programs. Further reductions in I-I will have a direct impact on the reduction of pump station peak flows

C. **Water Conservation** – The City of North Miami has developed a water conservation plan to lower its consumption on a per capita basis to help reduce the demand for potable water, which will also result in a reduction of domestic wastewater loads. The CNM's planned water conservation efforts are detailed in the Conservation Element of the Comprehensive Plan. Furthermore, the Conservation Element addresses the protection of the quality and quantity of ground water

D. **Wastewater Reuse** –As Miami-Dade County's population continues to increase, so does the demand for drinking water. Like all natural resources, the Biscayne Aquifer, Miami-Dade's current source of drinking water, is not limitless. The use of reclaimed water in Miami-Dade County helps preserve the Biscayne Aquifer.

The State of Florida has embraced wastewater reuse as an integral part of the development of water management strategies. Reclaimed water is highly treated, filtered and disinfected wastewater that is beneficially reused. Reclaimed water can replace or supplement groundwater supplies. Common uses for reclaimed water include irrigation, wetlands restoration, aquifer recharge, vehicle washing, air conditioning cooling towers, and other industrial uses. The use of reclaimed water is often referred to as wastewater reuse.

Although the City of North Miami does not operate a wastewater plant, the City is exploring water reuse opportunities with SFWMD, MDWASD and the City of North Miami Beach. The development of reuse projects in the area of North Miami, as proposed in the future by the MDWASD Reuse Feasibility Plan, may affect the City's planning and operating environment in the future.

E. **Systematization of Data Recording** - The City of North Miami has made a considerable effort in installing a SCADA system to monitor sewer pump stations. Future sanitary sewer system planning studies will continue to benefit greatly from the availability of extended flow records during dry and wet season. Also, the City has developed a GIS-based Sewer Atlas. It is important to maintain the accuracy of the Sewer GIS, documenting all changes made to the sanitary sewer system connectivity. Therefore, it is recommended that the City continue to maintain and update the following information within the sanitary sewer system:
- SCADA flow monitoring records for all pump stations
- GIS based Sewer Atlas, updated periodically with information extracted from "asbuilds" of the works the City completes

Non-Compliant Basins Rehabilitation

5.1.14 Basin E Project

Basin E is considered a Moderate Infiltration Basin. Moderate infiltration basins are those between 5,000 and 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks,

fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 40,689 lf of sewer length that needs repair or replacement.

5.1.15 Basin I Project

Basin I is considered a Moderate Infiltration Basin. Moderate infiltration basins are those between 5,000 and 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 1,869 lf of sewer length that needs repair or replacement.

5.1.16 Bellows Project

Bellows project is considered a Moderate Infiltration Basin. Moderate infiltration basins are those between 5,000 and 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 2,014 lf of sewer length that needs repair or replacement.

5.1.16 Woods Project

Woods project is considered a Moderate Infiltration Basin. Moderate infiltration basins are those between 5,000 and 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 10,694 lf of sewer length that needs repair or replacement.

5.1.16 Quayside Project

Woods project is considered a Severe Infiltration Basin. Severe infiltration basins are considered more than 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 5,354 lf of sewer length that needs repair or replacement.

5.1.16 KP-1 Project

KP-1 project is considered a Moderate Infiltration Basin. Moderate infiltration basins are those between 5,000 and 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 1,072 lf of sewer length that needs repair or replacement.

5.1.16 Rodan Project

Rodan project is considered a Severe Infiltration Basin. Severe infiltration basins are considered more than 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole

rehabilitation is planned. There is approximately 528 lf of sewer length that needs repair or replacement.

5.1.16 Noel Project

Noel project is considered a Moderate Infiltration Basin. Moderate infiltration basins are those between 5,000 and 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 903 lf of sewer length that needs repair or replacement

5.1.16 Futura Project

Futura project is considered a Severe Infiltration Basin. Severe infiltration basins are those between 5,000 and 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 4,417 lf of sewer length that needs repair or replacement

5.1.16 Arch Creek Plaza Project

Arch Creek Plaza project is considered a Severe Infiltration Basin. Severe infiltration basins are those with more than 10,000 gpd/IDM inch-mile. Replacement of pipes with severe structural defects (cracks, fractures, sags, offset joints) or CIPP rehabilitation for moderate to severe structural defects along with manhole rehabilitation is planned. There is approximately 876 lf of seer length that needs repair or replacement

5.2. ENVIRONMENTAL IMPACTS OF PROPOSED FACILITIES.

The short-term impacts during construction include increased noise levels, increased airborne particulates and surface run-off during rainfall on the site. Control measures will be implemented to minimize these temporary effects. The construction sites will be in the right-of-way and where forcemain and pump stations already exist. The long-term impacts of the project are beneficial.

The proposed project will not have significant adverse effects on wild and scenic rivers or on flora, fauna, threatened or endangered plant or animal species, prime agricultural lands, wetlands, undisturbed natural areas, or the socio-economic character of the area. The area is urban in nature and the forcemain and pump stations already exist, this project is just to improve and or replace the existing structures.

5.3. COST TO CONSTRUCT FACILITIES.

The following tabulation presents the total project cost inclusive of SRF Project Cost Worksheet in Appendix 7.

Construction	11,029,960

Contingency (10%)	1,102,996
Technical Services (10%)	1,102,996
Total Project Cost for SRF Loan	$13,235,952

5.4. CONSISTENCY WITH THE COMPREHENSIVE PLAN.

The recommendation resulting from this study is consistent with both the City's local comprehensive plan. (Appendix 8)

Table of Contents

Section 1 Background

1.0 Background 1-1
1.1 Brief Description of the Project 1-1
1.2 Project Objectives 1-1
1.3 Technical Memoranda and Master Plan Final Report 1-2

Section 2 Data Compilation and Review

2.1 Introduction 2-1
2.2 Sources of Information 2-1
2.3 Data Collection and Review 2-1

2.3.1 System Layout 2-4
2.3.2 Geographic Information System (GIS) 2-6
2.3.3 Land Use and Population Projection 2-7
2.3.4 Wastewater Flows 2-8
2.3.5 Existing Hydraulic Model 2-8
2.3.6 Pump Station Surveys 2-9
2.3.7 Other Information 2-9

Section 3 Definition of Existing and Future Wastewater Loads

3.1 Introduction 3-1
3.2 Study Area 3-1

3.2.1 Area within Existing City Boundaries 3-2

3.3 Growth Scenario 3-3

3.3.1 The City of North Miami Comprehensive Plan Amendment (CPA) 3-3
3.3.2 Spatial Allocation of Population Projections 3-4

3.4 GIS-Based Existing System Water Consumption Evaluation 3-5
3.5 Collection and Interpretation of Historical Wastewater Loads 3-7

3.5.1 Available Flow Information 3-7
3.5.2 Collected Flow Information 3-7
3.5.3 Estimation of DWF and RDII 3-8

3.5.3.1 Dry Weather Flows (DWF) 3.8
3.5.3.2 Wet Weather Flow (WWF) 3-9
3.5.3.3 Total Pump Station Flow 3-9

3.6 Population Growth by Sewer Basins and Planning Year 3-10
3.7 Septic Tank Conversion 3-10
3.8 Private Pump Stations 3-12
3.9 Conclusions and Recommendations 3-12

Section 4 Evaluation of Existing Sanitary System Performance

4.1 Introduction 4-1
4.2 Model Review and Software Selection 4-1
4.3 GIS Based Sewage System Database 4-3
4.4 Sanitary Sewage System Model Development 4-5

4.4.1 Model Purpose and Requirements 4-5
4.4.2 Physical Description/Connectivity 4-5

4.4.2.1 System Configuration 4.5
4.4.2.2 Model Nodes 4-6
4.4.2.3 Model Conduits 4-6
4.4.2.4 Wet Well Dimensions 4-7
4.4.2.5 Pump Characteristics and Pump Controls 4-7
4.4.2.6 Model Connectivity 4-7

4.5 Flow Monitoring Program and Implementation 4-7

4.5.1 Dry Weather Flow (DWF) Monitoring 4-8
4.5.2 Wet Weather Flow (WWF) Monitoring 4-8
4.5.3 Monitoring Equipment 4-8

4.5.3.1 Rain and Groundwater Monitoring 4-10
4.5.3.2 City of North Miami SCADA 4-10

Tables

Table 1.1 List of Technical Memoranda 1-2

Table 2.1 List of Available Information and Data Needs 2-5
Table 2.2 City of North Miami Force Main Inventory 2-6
Table 2.3 List of GIS Files Provided by the City of North Miami 2-7
Table 2.4 Sources of Population Projections 2-8
Table 2.5 Projected Populations for City's Water Service Area 2-10
Comprehensive Plan Amendment
Table 2.6 Pump Station Information 2-9

Table 3.1 North Miami Sewer Basins 3-2
Table 3.2 Population Projections 3-4
Table 3.3 Population Projection Comparison 3-4
Table 3.4 Summary Results of Water Billing Record Analysis 3-6
Table 3.5 Septic Tanks within Sewer Basins 3-10
Table 3.6 Septic Tank Conversion in Sewer Basin Area 3-11

Table 4.1 Software Modeling Selection Criteria 4-1
Table 4.2 Key Features of Modeling Software 4-2
Table 4.3 Ranking of Available Modeling Software 4-2
Table 4.4 Discharge Locations 4-6
Table 4.5 Data Sources 4-9
Table 4.6 SFWMD and USGS Gages for Rain and Ground Water Level 4-10
Table 4.7 City of North Miami Pump Station SCADA Transmitter Installations 4-11
Table 4.8 Recorded Storm Event on June 5, 2009 4-17
Table 4.9 System Performance Criteria 4-20
Table 4.10 Wastewater System Deficiencies 4-21

Table 5.1 Current and Future Upgrades Incorporated as Existing Condition 5-1
Table 5.2 Recommended Improvements 5-6
Table 5.3 Estimated Cost of Recommended Improvements 5-8
Table 5.4 Recommended Implementation Schedule 5-9

Figures

		After Page
Figure 1-1	City of North Miami Location within Miami-Dade County	1-1
Figure 2-1	Wastewater System Layout	2-4
Figure 2-2	Pump Station Connectivity	2-4
Figure 3-1	Sanitary Sewer Basins within City Boundaries	3-3
Figure 3-2	North Miami Population Projections	3-4
Figure 3-3	Allocation of Water Consumption Records	3-6
Figure 3-4	Basin Wide Average Consumption	3-6
Figure 4-1	City of North Miami Sanitary Sewer System General Layout	4-5
Figure 4-2	Typical 24-Hour Dry Weather Flow	4-13
Figure 4-3	Recorded Storm Event on June 5, 2009	4-17
Figure 4-4	Recorded vs. Simulated Total Flow	4-19
Figure 5-1	Recommended Improvements Location Map	5-7

Appendices

Appendix 1	System Model Nodes and Conduits	A1-1
Appendix 2	Wastewater Collection and Transmission System Model Connectivity Diagram	A2-1
Appendix 3	Location of Rain and Flow Monitoring Equipment	A3-1
Appendix 4	SCADA Information	A4-1
Appendix 5	Existing and Projected Dry-Weather Flow	A5-1
Appendix 6	Proposed System Configuration	A6-1
Appendix 7	Sample FDEP SRF Application	A7-1

Technical Memoranda

TM-1	Project Specific Data Compilation and Review
TM-2	Existing and Future Wastewater Loads
TM-3	Existing Wastewater System Model Development

Section 1
Background

1.0 Background

The City of North Miami's wastewater collection and transmission system serves an urbanized area of Miami-Dade encompassing approximately 5,300 acres. The City's collection and transmission system discharges into the Miami-Dade Water and Sewer Department (MDWASD) system at four connection points and is treated at Miami-Dade North District Wastewater Treatment Plant. The system consists of approximately 118 miles of sanitary sewer and 150 pump stations. Of these pump stations, 107 are privately owned and the remaining 46 are owned and operated by the City. Figure 1-1 presents a location map of the City of North Miami in relation to Miami Dade County.

The most recent sewer master plan was developed in 1988, and since then, increase in population, aging infrastructure, and other variables have affected the City's planning and operating environment. Hazen and Sawyer was authorized by the City to develop an updated Sanitary Sewer Master Plan to identify the needs of the City's collection and transmission system.

1.1 Brief Description of the Project

The Sanitary Sewer Master Plan will assess existing system capacity and identify and prioritize the various system improvements needed to accommodate future growth.

The Sanitary Sewer Master Plan consists of the following main components:

- Review and Evaluation of Existing Information
- Calculation of Existing and Future Wastewater Loads
- Evaluation of Existing Wastewater System Performance
- Development of the Wastewater System Master Plan
- Development of Funding Alternatives

1.2 Project Objectives

The primary objective of the project is to identify the needs of the City's collection and transmission system for the period 2010-2030, and prepare a Sanitary Sewer Master Plan that will serve as a planning tool to assist the City in the assessment of its Federal, State, County, and Local regulatory compliance requirements with respect to sanitary sewer.

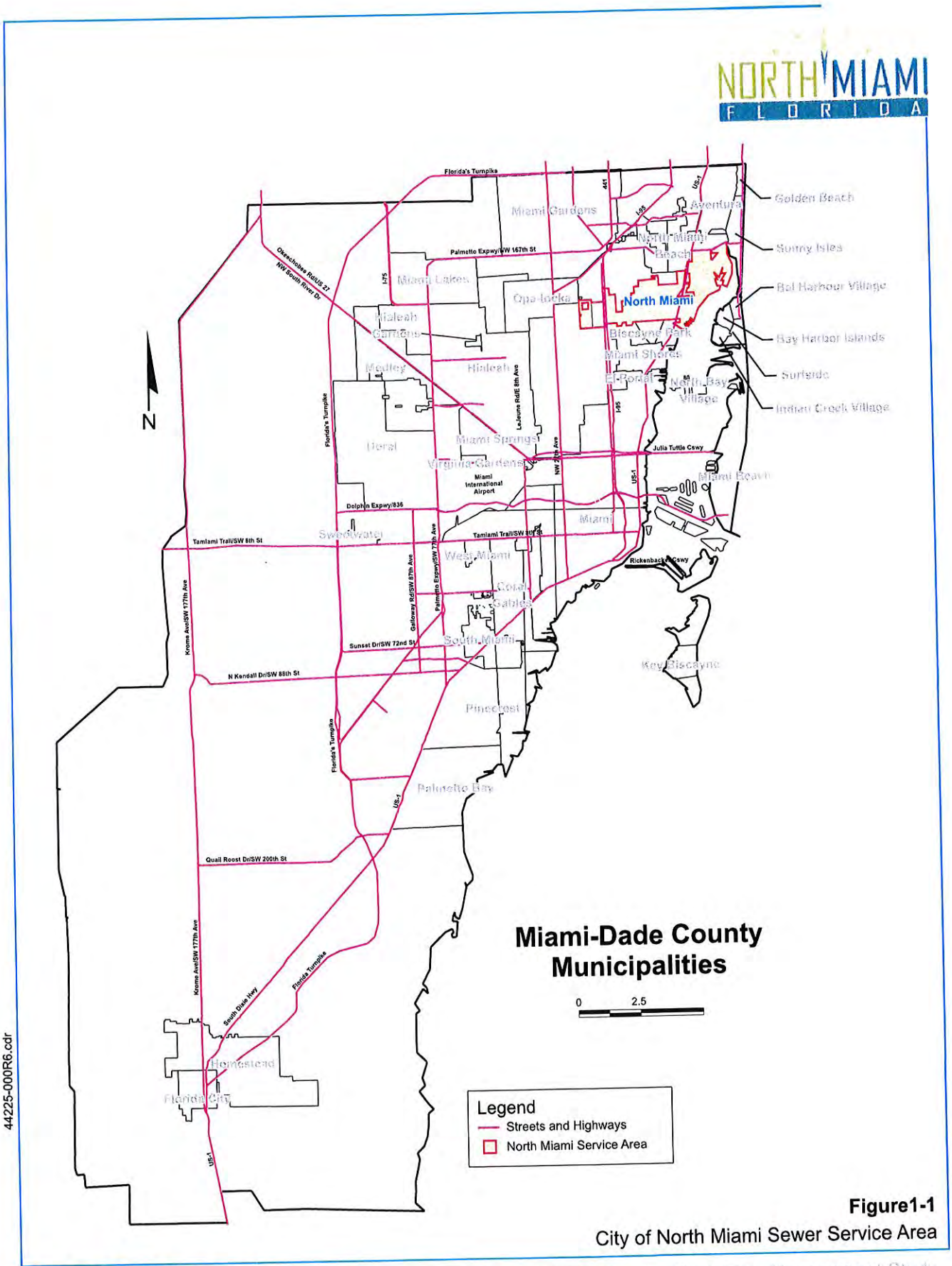

Figure1-1

City of North Miami Sewer Service Area

44225-000R6.cdr

1.3 Technical Memoranda and Master Plan Final Report

The City of North Miami Sanitary Sewage Master Plan study development has been documented in technical memoranda, submitted to the Client as the study progressed. The list of technical memoranda which have been submitted to the Client is shown in Table 1.1.

Table 1.1
List of Technical Memoranda

Technical Memorandum No.	Name	Submission Date
1	Project Specific Data Compilation and Review	Dec-08
2	Existing and Future Wastewater Loads	Feb-09
3	Existing Wastewater System Model Development	May-09

In addition, the results of the Sanitary System Flow Monitoring Program, with data gathered to September 2009, were submitted to the City as a working document, which served as basis for discussions and decision making.

The schedule of the Sanitary Sewage Study was extended to accommodate the implementation of the Sanitary System Flow Monitoring Program, which was deemed important to better characterize the sanitary loads in the system, and to allow for the completion of the Peak Flow Management Study (PFMS) required by the Department of Environmental Resources Management.

This report represents a summary of the information contained in technical memoranda 1 to 3 and includes the results of the evaluation of the existing sanitary system performance and the formulation of the sanitary system master plan.

APPENDIX 7

- Capital Financing Plan and Financial Documentation

CAPITAL FINANCING PLAN

WW-02b

City of North Miami
(Project Sponsor)
Stephen Johnson, City Manager
(Authorized Representative and Title)
North Miami, Florida 33161
(City, State, and Zip Code)

Aleem A. Ghany PE, Director of Utilities
(Capital Financing Plan Contact, Title and Telephone Number)
776 NE 125 Street, 3rd Floor
(Mailing Address)
North Miami, Florida 33161
(City, State, and Zip Code)

The Department needs to know about the financial capabilities of potential State Revolving Fund (SRF) loan applicants. Therefore, a financial capability demonstration (and certification) is required well before the evaluation of the actual loan application.

The sources of revenues being dedicated to repayment of the SRF loan are Water and Wastewater Enterprise Funds
(Note: Projects pledging utility operating revenues should attach a copy of the existing/proposed rate ordinance)

Estimate of Proposed SRF Loan Debt Service

Capital Cost*	**13,235,952**
Loan Service Fee (2% of capital cost)	**271,919**
Subtotal	**13,507,871**
Capitalized Interest**	**360,018**
Total Cost to be Amortized	**13,867,889**
Interest Rate***	**1.36**
Annual Debt Service	**796,642**
Annual Debt Service Including Coverage Factor****	**916,138**

* Capital Cost = Allowance + Construction Cost (including a 10% contingency) + Technical Services after Bid Opening.
** Estimated Capitalized Interest = Subtotal times Interest Rate times construction time in years divided by two.
***20 GO Bond Rate times Affordability Index divided by 200.
**** Coverage Factor is generally 15%. However, it may be higher if other than utility operating revenues are pledged.

SCHEDULE OF PRIOR AND PARITY LIENS

List annual debt service beginning two years before the anticipated loan agreement date and continuing at least fifteen fiscal years. Use additional pages as necessary.

Identify Each Obligation

#1 Series 2008A $21,435,000 Coverage % 120% Insured (Yes/No) Yes	#2 SunTrust 1 - Loan $1,200,000 Coverage % 120% Insured (Yes/No) Yes	#3 SunTrust 2 - Loan $215,935 Coverage % 120% Insured (Yes/No) Yes
# 4 SunTrust 3 - Loan $508,959 Coverage % 120% Insured (Yes/No) Yes	# 5 SunTrust 4 - Loan $709,181 Coverage % 120% Insured (Yes/No) Yes	# 6 SunTrust 5 - Loan $514,250 Coverage % 120% Insured (Yes/No) Yes
# 7 SunTrust 6 - Loar $424,421 Coverage % 120% Insured (Yes/No) Yes	# 8 SRF Loan WW131810 $491,653 Coverage % 115% Insured (Yes/No) No	# 9 SRF Loan DW131830 $4,572,325 Coverage % 115% Insured (Yes/No) No

Fiscal Year	Annual Debt Service (Principal + Interest)									Total Non-SRF Debt Service w/coverage	Total SRF Debt Service w/coverage
	#1	#2	#3	#4	#5	#6	#7	#8	#9		
2010	546,697	197,737	35,000	84,269	87,813	84,427	69,628			1,326,685	-
2011	3,729,900	197,736	35,000	84,269	87,809	84,428	69,627			5,146,523	-
2012		197,734	17,499	84,269	90,470	84,428	68,626			651,631	-
2013		49,434		5,826	87,811	84,425	69,629			356,550	-
2014					87,812	10,378	69,628			201,382	-
2015					87,813		69,627	29,490	280,388	188,928	356,360
2016					87,812			29,490	280,388	105,374	356,360
2017					87,812			29,490	280,388	105,374	356,360
2018								29,490	280,388	-	356,360
2019								29,490	280,388	-	356,360
2020								29,490	280,388	-	356,360
2021								29,490	280,388	-	356,360
2022								29,490	280,388	-	356,360
2023								29,490	280,388	-	356,360
2024								29,490	280,388	-	356,360
2025								29,490	280,388	-	356,360
2026								29,490	280,388	-	356,360
2027								29,490	280,388	-	356,360
2028								29,490	280,388	-	356,360
2029								29,490	280,388	-	356,360
2030								29,490	280,388	-	356,360
2031								29,490	280,388	-	356,360
2032								29,490	280,388	-	356,360
2033								29,490	280,388	-	356,360
2034								29,490	280,388	-	356,360
2035								29,490	280,388	-	356,360

SCHEDULE OF ACTUAL REVENUES AND DEBT COVERAGE FOR PLEDGED REVENUE

(Provide information for the two fiscal years preceding the anticipated date of the SRF loan agreement)

		FY 2010	FY 2011
(a)	Operating Revenues (Identify)		
	Water Revenues	$ 7,114,193	$ 7,149,794
	Sewer Revenues	$ 10,917,668	$ 10,438,614
(b)	Interest Income	$ 50,134	$ 51,997
(c)	Other Incomes or Revenues (Identify)		
	Other charges for services	$ 1,758,907	$ 1,661,025
	Capital Improvement Utility Fee	$ 3,867,373	$ 3,994,996
(d)	Total Revenues	$ 23,708,275	$ 23,296,426
(e)	Operating Expenses (excluding interest on debt, depreciation, and other non-cash items)	$ 19,574,495	$ 20,823,528
(f)	**Net Revenues (f = d – e)**	$ 4,133,780	$ 2,472,898
(g)	Debt Service (including coverage) Excluding SRF Loans	$ 651,631	$ 356,550
(h)	Debt Service (including coverage) for Outstanding SRF Loans		
(i)	**Net Revenues After Debt Service (i = f – g – h)**	$ 3,482,149	$ 2,116,348

Source: CAFR
Notes:

SCHEDULE OF PROJECTED REVENUES AND DEBT COVERAGE FOR RATE-BASED SYSTEM PLEDGED REVENUE

(Begin with the fiscal year preceding first anticipated semiannual loan payment.)

		FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
(a)	Operating Revenues (Identify)					
	Water Revenues	12,049,050	12,320,800	12,722,100	13,348,300	14,219,900
	Sewer Revenues	11,904,850	13,856,100	15,488,100	16,701,800	17,792,400
(b)	Interest Income	53,921	55,916	57,985	58,391	60,551
(c)	Other Incomes or Revenues (Identify)					
	Other Charges for Service	1,688,600	1,688,600	1,692,900	1,697,100	1,705,600
(d)	Total Revenues	**25,696,421**	**27,921,416**	**29,961,085**	**31,805,591**	**33,778,451**
(e)	Operating Expenses	19,354,900	20,231,400	21,158,200	22,145,400	23,190,100
(f)	**Net Revenues (f = d - e)**	**6,341,521**	**7,690,016**	**8,802,885**	**9,660,191**	**10,588,351**
(g)	Existing Debt Service on Non-SRF Projects (including coverage)	651,631	356,550	201,382	188,928	105,374
(h)	Existing SRF Loan Debt (including coverage)	0	0	0	356,360	356,360
(i)	**Total Existing Debt Service (I = g + h)**	**651,631**	**356,550**	**201,382**	**545,288**	**461,734**
(j)	Projected Debt Service on Non-SRF Future Projects (including coverage)	0	0	0	0	0
(k)	Projected SRF Loan Debt Service (including coverage)	0	0		0	916,138
(l)	**Total Debt Service (Existing and Projected) (l = I + j + k)**	**651,631**	**356,550**	**201,382**	**545,288**	**1,377,872**
(m)	**Net Revenues After Debt (m = f - 1)**	**5,689,890**	**7,333,466**	**8,601,503**	**9,114,903**	**9,210,479**

(n) Identify the source of the above information and explain methods used to develop the projections (*Attachment #* __1__). Include an explanation of any revenue and expense growth or other adjustments; for example, any rate increases, service growth, inflation adjustments, expense adjustments reflecting the cost of operating additional facilities, or other considerations.

(o) Are the above projections consistent with the capital improvements financing information in the accepted clean water facilities plan? __x__ Yes _____ No. If not, explain on *Attachment #* ____.

CERTIFICATION

I, _____ , certify that I have reviewed the information
Chief Financial Officer (please print)

included in the preceding capital financing plan worksheets, and to the best of my knowledge, this information accurately reflects the financial capability of _____
Project Sponsor

I further certify that _____ has the financial capability to ensure
Project Sponsor

adequate construction, operation, and maintenance of the system, including this SRF project.

_____ Signature

_____ Date

Attachment 1

CAFR 2010/2011

Rate Study

Project Cost Worksheet

ATTACHMENT 1

Projected Revenue and Debt

	2012	2013	2014	2015	2016
Water:	11,953,400	12,079,200	12,351,600	12,785,700	13,415,000
	95,650	241,600	370,500	562,600	804,900
	12,049,050	12,320,800	12,722,100	13,348,300	14,219,900
Sewer:	11,074,300	11,934,600	13,890,700	15,565,500	16,785,300
	830,550	1,921,500	1,597,400	1,136,300	1,007,100
	11,904,850	13,856,100	15,488,100	16,701,800	17,792,400
Interest Income:	53,921	55,916	57,985	58,391	60,551
Other Revenues:	1,688,600	1,688,600	1,692,900	1,697,100	1,705,600
Total System:	**25,696,421**	**27,865,500**	**29,903,100**	**31,747,200**	**33,717,900**
Total Expenses:	19,354,900	20,231,400	21,158,200	22,145,400	23,190,100
Net:	**6,341,521**	**7,634,100**	**8,744,900**	**9,601,800**	**10,527,800**

ACTUAL

	2010	2011
Water Sales	7,114,193	7,149,794
Sewer	2,002,229	1,987,092
Sewage	8,915,439	8,451,522
	18,031,861	17,588,408
Capital Improvement Utility Fee	3,867,373	3,994,996
Other charges for services	1,758,907	1,661,025
Interest Income	50,134	51,997
Total Revenue	23,708,275	23,296,426
Total Operationg Expenses	21,017,576	22,051,551
Depreciation	(1,443,081)	(1,228,023)
Total Operation Expenses	19,574,495	20,823,528

City of North Miami, Florida

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
PROPRIETARY FUNDS

FISCAL YEAR ENDED SEPTEMBER 30, 2010

	Business-type Activities - Enterprise Funds				Governmental Activities- Internal Service Funds
	Water and Sewer Utility	Solid Waste Services	Stormwater Utility	Totals	
Operating revenues:					
Metered water sales	$ 7,114,193	$ -	$ -	$ 7,114,193	$ -
Sanitary sewer sales	2,002,229	-	-	2,002,229	-
Sewage treatment charges	8,915,439	-	-	8,915,439	-
Solid waste services	-	6,761,121	-	6,761,121	-
Stormwater charges	-	-	2,424,453	2,424,453	-
Motor vehicle charges	-	-	-	-	2,241,852
Capital improvement utility fee	3,867,373	-	-	3,867,373	-
Other charges for services	1,758,907	-	-	1,758,907	2,007,138
Total operating revenues	23,658,141	6,761,121	2,424,453	32,843,715	4,248,990
Operating expenses:					
Personal services	3,883,102	2,209,127	517,020	6,609,249	1,412,234
Sewage disposal and water charges	9,261,540	-	-	9,261,540	-
Solid waste disposal fees	-	1,493,288	-	1,493,288	-
Claims	-	-	-	-	4,180,441
Materials, supplies, services and other operating expenses	6,429,853	1,931,758	1,157,912	9,519,523	2,595,205
Depreciation	1,443,081	578,857	416,616	2,438,554	632,811
Total operating expenses	21,017,576	6,213,030	2,091,548	29,322,154	8,820,691
Operating income (loss)	2,640,565	548,091	332,905	3,521,561	(4,571,701)
Non-operating revenues (expenses):					
Interest income	50,134	-	-	50,134	5,837
Grants	327,996	-	2,059	330,055	-
Interest expense and fiscal charges	(224,734)	(46,287)	(210,704)	(481,725)	-
Amortization of bond premium	-	-	13,298	13,298	-
Amortization of issuance costs	(15,684)	-	(5,287)	(20,971)	-
Miscellaneous	67,622	9,559	264	77,445	611,913
Total non-operating revenues (expense)	205,334	(36,728)	(200,370)	(31,764)	617,750
Income (loss) before contributions and transfers	2,845,899	511,363	132,535	3,489,797	(3,953,951)
Capital contributions	251,885	-	-	251,885	-
Transfers in	-	63,127	-	63,127	-
Transfers out	(133,507)	(106,231)	(18,662)	(258,400)	(54,192)
Total contributions and transfers	118,378	(43,104)	(18,662)	56,612	(54,192)
Change in net assets	2,964,277	468,259	113,873	3,546,409	(4,008,143)
Net assets, beginning	42,857,601	1,538,983	8,264,227	52,660,811	2,327,062
Net assets, ending	$ 45,821,878	$ 2,007,242	$ 8,378,100	$ 56,207,220	$ (1,681,081)

See notes to basic financial statements.

CITY OF NORTH MIAMI, FLORIDA

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS
PROPRIETARY FUNDS

FISCAL YEAR ENDED SEPTEMBER 30, 2011

	Business-type Activities - Enterprise Funds				Governmental Activities- Internal Service Funds
	Water and Sewer Utility	Solid Waste Services	Stormwater Utility	Totals	
Operating revenues:					
Metered water sales	$ 7,149,794	$ -	$ -	$ 7,149,794	$ -
Sanitary sewer sales	1,987,092	-	-	1,987,092	-
Sewage treatment charges	8,451,522	-	-	8,451,522	-
Solid waste services	-	6,635,169	2,408,384	9,043,553	-
Stormwater charges	-	-	-	-	-
Motor vehicle charges	-	-	-	-	2,376,456
Capital improvement utility fee	3,994,996	-	-	3,994,996	-
Other charges for services	1,661,025	-	-	1,661,025	1,867,616
Total operating revenues	23,244,429	6,635,169	2,408,384	32,287,982	4,244,072
Operating expenses:					
Personal services	3,648,683	1,956,575	572,424	6,177,682	1,156,740
Sewage disposal and water charges	10,639,149	-	-	10,639,149	-
Solid waste disposal fees	-	1,455,973	-	1,455,973	-
Claims	-	-	-	-	925,753
Materials, supplies, services and other operating expenses	6,535,696	1,982,716	1,231,578	9,749,990	2,839,615
Depreciation	-	-	-	-	538,605
Total operating expenses	1,228,023	245,919	426,355	1,900,297	5,460,713
	22,051,551	5,641,183	2,230,357	29,923,091	
Operating income (loss)	1,192,878	993,986	178,027	2,364,891	(1,216,641)
Non-operating revenues (expenses):					
Interest income	51,997	-	-	51,997	2,741
Grants	521,471	-	-	521,471	-
Interest expense and fiscal charges	(145,278)	-	(203,164)	(348,442)	-
Amortization of bond premium	-	-	-	-	-
Amortization of issuance costs	-		-	-	-
Miscellaneous	169,158	27,807	2,891	199,856	229,774
Total non-operating revenues (expense)	597,348	27,807	(200,273)	424,882	232,515
Income (loss) before contributions and transfers	1,790,226	1,021,793	(22,246)	2,789,773	(984,126)
Capital contributions	5,110	-	-	5,110	-
Transfers in	106,200	69,200	-	175,400	-
Transfers out	(129,834)	(65,339)	(18,809)	(213,982)	(33,143)
Total contributions and transfers	(18,524)	3,861	(18,809)	(33,472)	(33,143)
Change in net assets	1,771,702	1,025,654	(41,055)	2,756,301	(1,017,269)
Net assets (deficit), beginning	45,821,878	2,007,242	8,378,100	56,207,220	(1,681,081)
Net assets (deficit), ending	$ 47,593,580	$ 3,032,896	$ 8,337,045	$ 58,963,521	$ (2,698,350)

See notes to basic financial statements.

Table 37 Comparison of the Combined System Revenue and Revenue

Line	Description	For the Fiscal Year Ended: 2012	2013	2014	2015	2016
	COMBINED SYSTEM					
	REVENUES					
	Revenues Under Existing Rates:					
1	Water	$ 11,953,400	$ 12,079,200	$ 12,351,600	$ 12,785,700	$ 13,415,000
2	Sewer	11,074,300	11,934,600	13,890,700	15,565,500	16,785,300
3	**Total System**	$ 23,027,700	$ 24,013,800	$ 26,242,300	$ 28,351,200	$ 30,200,300
	Percent Rate Increase:					
4	Water	1.60%	2.00%	3.00%	4.40%	6.00%
5	Sewer	15.00%	16.10%	11.50%	7.30%	6.00%
6	**Total System**	8.00%	9.00%	7.50%	6.00%	6.00%
	Actual Rate Increase:					
7	Implementation Period	*6 months*	*12 months*	*12 months*	*12 months*	*12 months*
8	Water	$ 95,650	$ 241,600	$ 370,500	$ 562,600	$ 804,900
9	Sewer	830,550	1,921,500	1,597,400	1,136,300	1,007,100
10	**Total System**	$ 926,200	$ 2,163,100	$ 1,967,900	$ 1,698,900	$ 1,812,000
11	**Revenues Under Proposed Rates**	$ 23,953,900	$ 26,176,900	$ 28,210,200	$ 30,050,100	$ 32,012,300
12	**Total Other Revenues**	$ 1,688,600	$ 1,688,600	$ 1,692,900	$ 1,697,100	$ 1,705,600
13	**Total System Revenues**	$ 25,642,500	$ 27,865,500	$ 29,903,100	$ 31,747,200	$ 33,717,900
	OPERATING EXPENDITURES					
	O&M Expenses:					
14	Contractual Services	$ 2,956,400	$ 3,144,600	$ 3,347,400	$ 3,566,700	$ 3,803,500
15	Utility Equipment Maintenance	1,081,200	1,146,800	1,216,700	1,291,200	1,370,700
16	Water Plant	4,802,800	4,949,300	5,105,200	5,277,400	5,460,400
17	W&S Special Projects	0	0	0	0	0
18	Water Distribution	1,383,000	1,458,300	1,537,800	1,621,700	1,710,300
19	Sewer Collection and Disposal	9,131,500	9,532,400	9,951,100	10,388,400	10,845,200
20	Sewer Projects	0	0	0	0	0
21	**Total O&M Expenses**	$ 19,354,900	$ 20,231,400	$ 21,158,200	$ 22,145,400	$ 23,190,100
22	**Net Revenues**	$ 6,287,600	$ 7,634,100	$ 8,744,900	$ 9,601,800	$ 10,527,800
23	**Total Debt Service**	$ 543,000	$ 721,000	$ 1,863,200	$ 1,852,800	$ 1,950,100
24	**Income Available for Other Exp.**	$ 5,744,600	$ 6,913,100	$ 6,881,700	$ 7,749,000	$ 8,577,700
	Debt Service Coverage					
25	Achieved	**11.58**	**10.59**	**4.69**	**5.18**	**5.40**
26	Target	1.20	1.20	1.20	1.20	1.20
	Other Expenditures & Transfers:					
27	Renewal and Replacement Fund	$ 1,884,000	$ 1,964,100	$ 2,047,600	$ 2,134,600	$ 2,225,800
28	Transfer to General Fund	1,559,600	1,559,600	1,563,500	1,567,400	1,575,300
29	Transfer to Pension Fund	167,000	174,500	182,400	191,100	200,200
30	Reserve for Employee Benefits	279,400	299,000	319,900	342,300	366,300
31	Rate Stabilization Fund	641,500	641,500	642,900	644,400	647,500
32	**Total Other Exp. & Transfers**	$ 4,531,500	$ 4,638,700	$ 4,756,300	$ 4,879,800	$ 5,015,100
33	**Total Revenue Requirements**	**$ 24,429,400**	**$ 25,591,100**	**$ 27,777,700**	**$ 28,878,000**	**$ 30,155,300**
34	**Operating Surplus/Deficit**	**$ 1,213,100**	**$ 2,274,400**	**$ 2,125,400**	**$ 2,869,200**	**$ 3,562,600**
	Fund Balance:					
35	Beginning Fund Balance	$ 12,300	$ 1,225,400	$ 2,999,800	$ 2,579,700	$ 4,448,900
36	Operating Surplus	1,213,100	2,274,400	2,125,400	2,869,200	3,562,600
37	Cash Funding of Capital Projects	0	(500,000)	(2,545,500)	(1,000,000)	0
38	**Ending Fund Balance**	**$ 1,225,400**	**$ 2,999,800**	**$ 2,579,700**	**$ 4,448,900**	**$ 8,011,500**
39	**Days Fund Balance on Hand**	**23**	**53**	**44**	**72**	**124**

USER INTERFACE - Affordability Calculation

Summary Sheet 1

(weights: income -- 0.3454; sales tax -- 0.0; unemployment rate -- 0.2855; poverty rate -- 0.3689)

To use this form, input the census tracts of the rate payers who will be paying for the project. Typically, this will include the area currently served and the area proposed to be served by the project sponsor. Use all census tracts regardless of the amount of your service area/project in a particular census tract. Lookup the county number from Table 2 and use in the County Number column in Table 1. Your affordability index will be calculated and shown in Table 1 line 32. The population numbers shown here are not used in determining whether a sponsor is a small community. The population numbers are only used when the number of census tracts exceeds 25. When there are more than 25 census tracts a weighted average needs to be computed. To do this, input the first 25 tracts into Table 1. Use the additional Afford Worksheets to insert any additional census tracts. Continue this procedure for all census tracts. The weighted average affordability index (line 44) from Afford 1 Worksheet will be the one we'll use for your project.

Project Sponsor North Miami

Project #

Table 1 - Affordability Determination

Number	County Number	Census Tract Number	Index Number	Population
1	86	4.05	74.75	4,520
2	86	4.10	66.41	5,898
3	86	3.07	70.85	5,354
4	86	3.08	70.85	5,354
5	86	3.06	70.85	5,354
6	86	3.05	74.99	7,303
7	86	2.17	71.08	9,106
8	86	2.18	71.08	9,106
9	86	2.20	71.08	9,106
10	86	2.19	71.08	9,106
11	86	1.24	80.93	1,691
12	86	2.09	72.83	7,875
13	86	1.20	80.93	1,691
14	86	1.09	75.67	1,975
15	86	12.03	70.97	7,590
16	86	12.04	82.39	5,466
17	0	0.00	0.00	0
18	0	0.00	0.00	0
19	0	0.00	0.00	0
20	0	0.00	0.00	0
21	0	0.00	0.00	0
22	0	0.00	0.00	0
23	0	0.00	0.00	0
24	0	0.00	0.00	0
25	0	0.00	0.00	0
Summary			**72.44**	**96,495**

Table 2 - County Numbers

County #	County	County #	County
1	Alachua	69	Lake
3	Baker	71	Lee
5	Bay	73	Leon
7	Bradford	75	Levy
9	Brevard	77	Liberty
11	Broward	79	Madison
13	Calhoun	81	Manatee
15	Charlotte	83	Marion
17	Citrus	85	Martin
19	Clay	86	Miami-Dade
21	Collier	87	Monroe
23	Columbia	89	Nassau
27	De Soto	91	Okaloosa
29	Dixie	93	Okeechobee
31	Duval	95	Orange
33	Escambia	97	Osceola
35	Flagler	99	Palm Beach
37	Franklin	101	Pasco
39	Gadsden	103	Pinellas
41	Gilchrist	105	Polk
43	Glades	107	Putnam
45	Gulf	109	St. Johns
47	Hamilton	111	St. Lucie
49	Hardee	113	Santa Rosa
51	Hendry	115	Sarasota
53	Hernando	117	Seminole
55	Highlands	119	Sumter
57	Hillsborough	121	Suwannee
59	Holmes	123	Taylor
61	Indian River	125	Union
63	Jackson	127	Volusia
65	Jefferson	129	Wakulla
67	Lafayette	131	Walton
		133	Washington

Table 3 - Weighted Average Affordability Index

	Index Number	Population
Summary 1	72.44	96,495
Summary 2	0.00	-
Summary 3	0.00	-
Summary 4	0.00	-
Summary 5	0.00	-
Summary 6	0.00	-
Weighted Average	72.43812	96,495

Bond Buyer 20-Bond GO Index Rat 3.76%

Financing Rate (Summary) = 1.36%

Financing Rate (Weighted Avg) = 1.36%

http://www2.census.gov/geo/maps/dc10map/tract/st12_fl/c12086_miami-dade/DC10CT_C12086_003.pdf - Windows Internet Explorer

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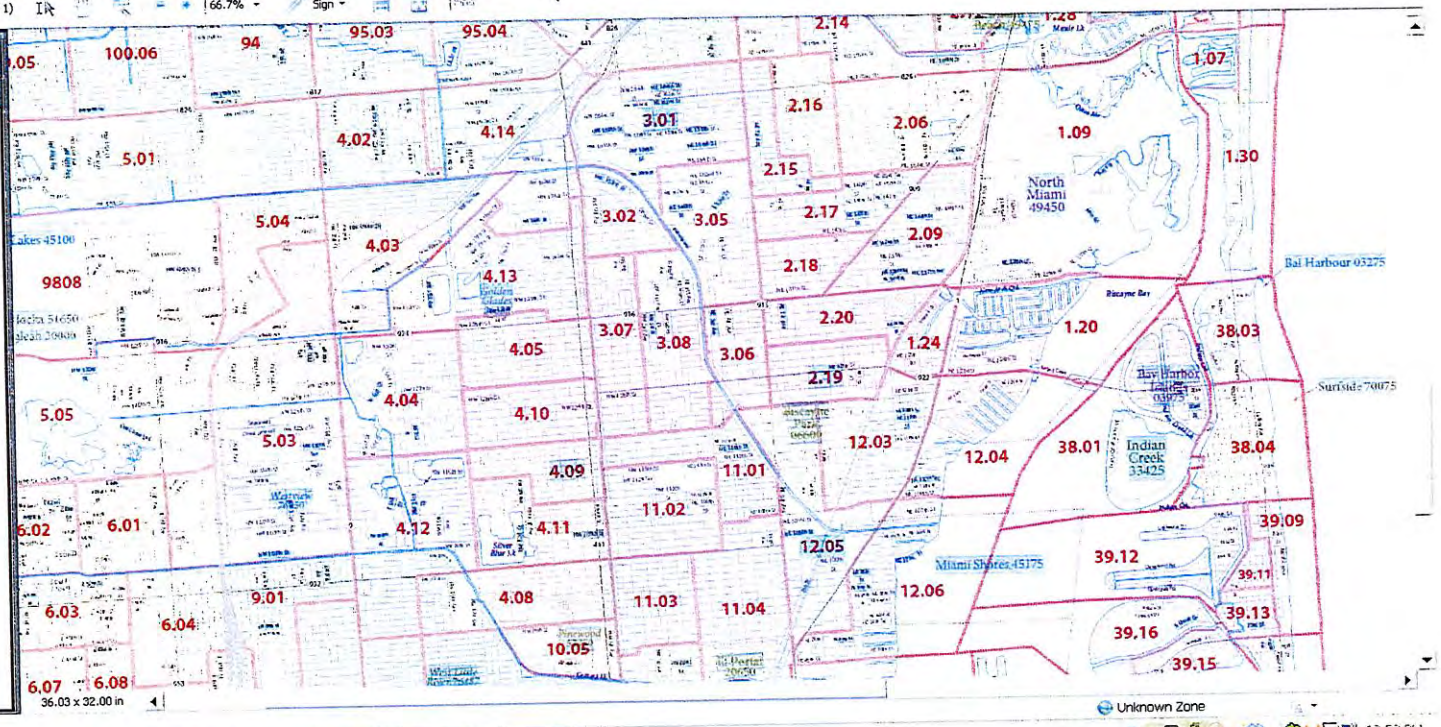
Favorites

http://www2.census.gov/geo/maps/dc10ma...

Sheet 3 (1 of 1) 66.7% Sign

Pages

Sheet 3



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CITY OF NORTH MIAMI
CLEAN WATER (CW) INFRASTRUCTURE IMPROVEMENTS
SRF FUNDING OVERVIEW

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CITY OF NORTH MIAMI, FLORIDA
FDEP – SRF
CLEAN WATER FACILITIES PLAN ADDENDUM

To the City of North Miami – Sanitary Sewer Master Plan by Hazen and Sawyer April 2011

And

City of North Miami Second Cycle Sanitary Sewer Evaluation Survey by CDM Smith March 2013

DEPARTMENT OF ENVIRONMENTAL PROTECTION FLORIDA

CDM Smith

HAZEN AND SAWYER
Environmental Engineers & Scientists

NORTH MIAMI FLORIDA

BLACK & VEATCH

AGENDA

Project History and Description

Environmental Effects / Comprehensive Plan

Estimated Project Cost and Impact on Users

PROJECT HISTORY AND DESCRIPTION

FINAL REPORT

City of North Miami

Second Cycle Sanitary Sewer Evaluation Survey (SSES)

Phase I & II Preliminary Sewer System Survey, Sewer System Analysis and Corrective Action Plan

CDM Smith

NORTH MIAMI FLORIDA

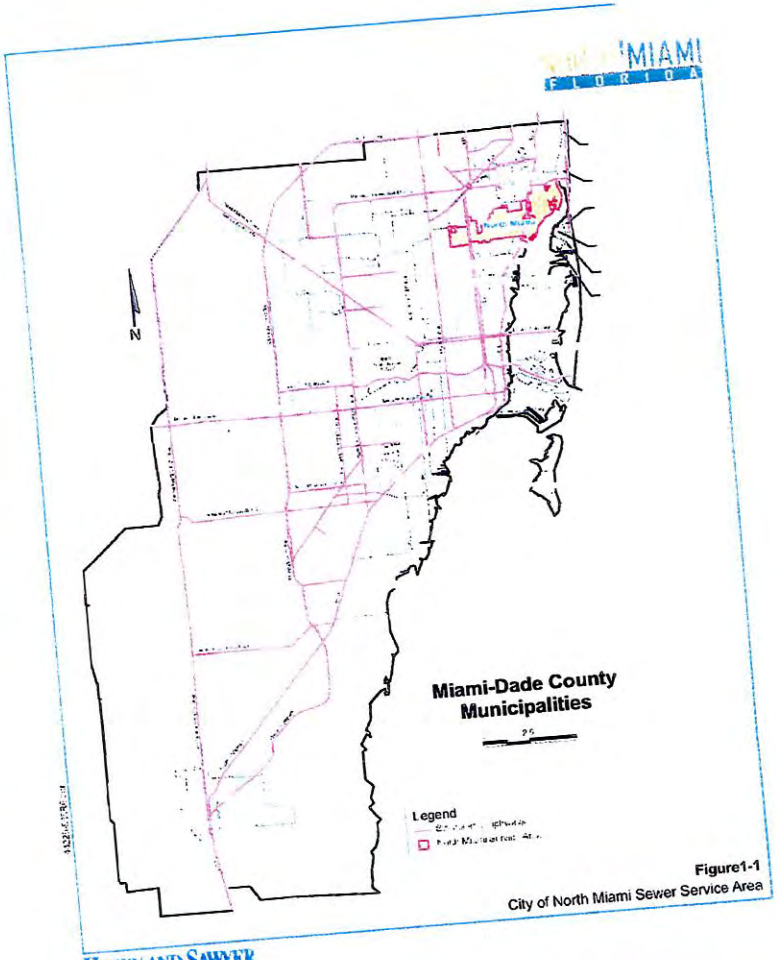

Figure1-1
City of North Miami Sewer Service Area

HAZEN AND SAWYER
Environmental Engineers & Scientists

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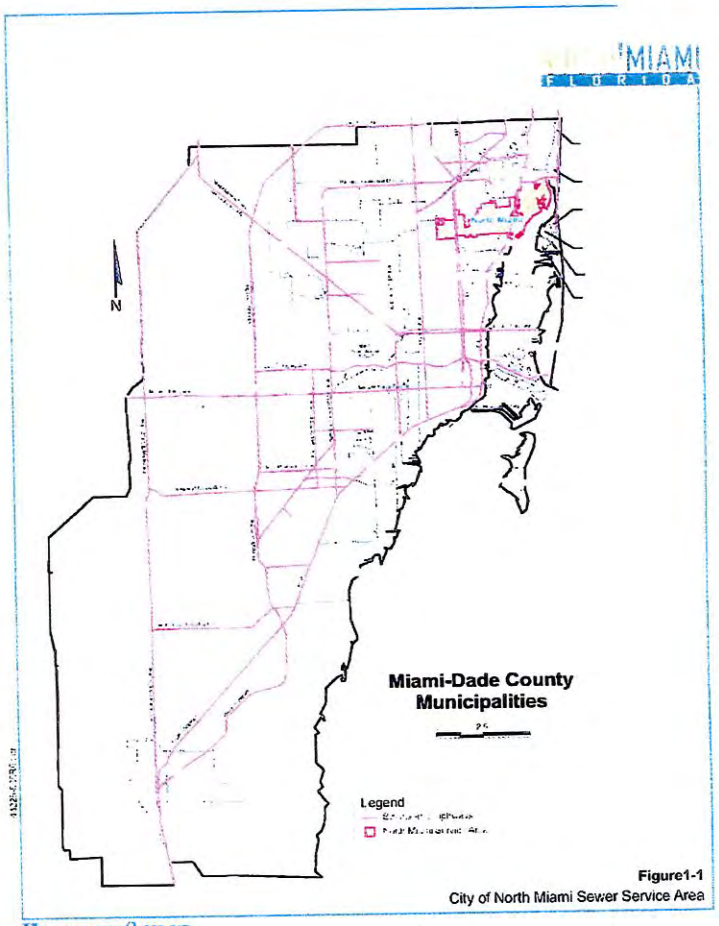

Figure1-1
City of North Miami Sewer Service Area

HAZEN AND SAWYER
Environmental Engineers & Scientists

NORTH MIAMI
FLORIDA

Environmental Effects / Comprehensive Plan

PROJECTS

LONG TERM PROJECT SCOPE:

The City's sanitary sewer system was installed in the early 1950's and due to the age of the system the city has been experiencing Infiltration and Inflow (I/I).

The corrective action is to replace pump, replacement of structural defects in the system including cracks, offset joints, infiltration holes and manhole rehabilitation. Also additional corrective actions required are forcemain improvements / replacements and maximize the flow capacity of the sanitary sewer system.

NORTH MIAMI FLORIDA

COMPREHENSIVE PLAN APPROVAL

- Letter from City on Clean Water (Sewer) system

COMPREHENSIVE PLAN PROVISIONAL COMPLIANCE

Date: _____

To: Florida Department of Environmental Protection

From: City of North Miami, Florida

Project: City of North Miami Wastewater Collection and Transmission System Improvements

The City of North Miami City Council states that it has adopted a municipal or multi-municipal comprehensive plan and has adopted a county zoning ordinance, or a municipal or joint-municipal zoning ordinance.

The above referenced proposed project meets the provisions of the comprehensive plan.

Name and Contact Information for Municipal Zoning Officer: _____

_____

Submitted By: _____

Name: _____

Title: _____

Contact Information: _____

_____
(Address & Phone)

Signature: _____

Date: _____

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ESTIMATED PROJECT COST AND IMPACT ON USERS

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Together

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www.bv.com

OVERALL PROJECT STATISTICS

Clean Water

- 118 miles of gravity sewers
- 57+ miles of force main
- 2,078 manholes
- Phased construction
- Estimated long term project cost of $11M

NORTH MIAMI FLORIDA

PROPOSED IMPROVEMENTS

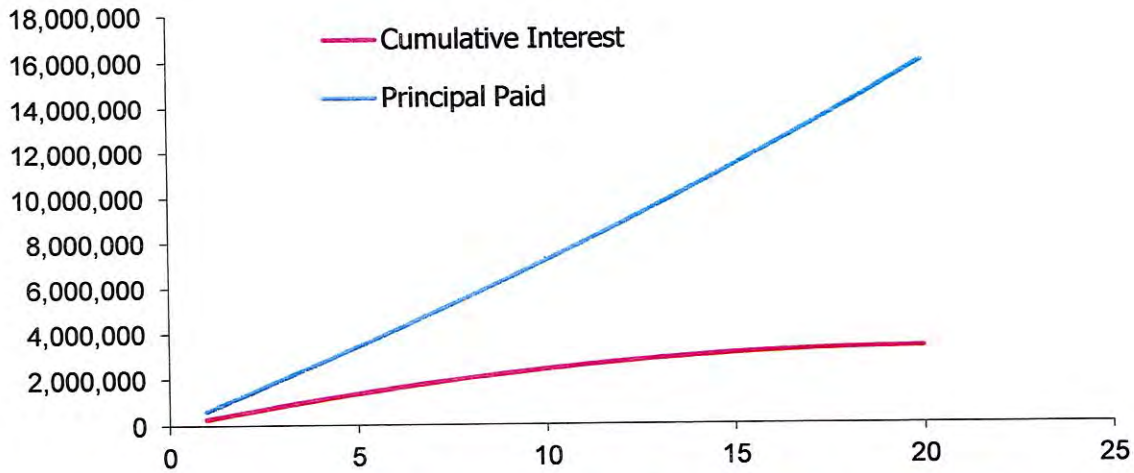
PROJECT NAME	COST ($)
Pump Station 02-B	$386,000
Pump Station 04-E	$450,000
Pump Station 07-H	$1,139,000
Pump Station 20-K (Industrial)	$307,000
Pump Station 24 (Hospital)	$552,000
Pump Station 40 (Futura)	$206,000
Pump Station 10 (San Souci 1)	$542,000
Pump Station 12 (San Souci 3)	$542,000
Upgrade of Gravity Sewer upstream of Pump Station 08-I	$201,000
Upgrade of 8-inch Force Main along Biscayne Blvd. to 12-inch	$1,345,000
Re-direction of Private Pump Station Flow to Biscayne Blvd. Force Main	$155,000
Upgrade of 6-inch FM along NW 12th Ave. to 16-inch.	$1,100,000
Basin E Rehabilitation	$2,441,340
Basin I Rehabilitation	$112,140
Basin Bellows	$120,840
Basin Woods	$641,640
Basin Quayside	$321,240
Basin KP-1	$64,320
Basin Rodan	$31,680
Basin Noel	$54,180
Basin Futura	$265,020
Basin Arch Creek Plaza	$52,560
Total	$11,029,960

NORTH MIAMI FLORIDA

ESTIMATED SAVINGS BY USING SRF

- Loan Amount (pv) $11,029,960
- Interest Rate (rate) 1.50% Total
- No. of Periods (Nper) 20
- Payment per Period $643,031
- Total Interest Paid $1,820,652

- Loan Amount (pv) $11,029,960
- Interest Rate (rate) 3.95%
- Total # of Periods (Nper) 20
- Payment per Period $808,747
- Total Interest Paid 5,134,981

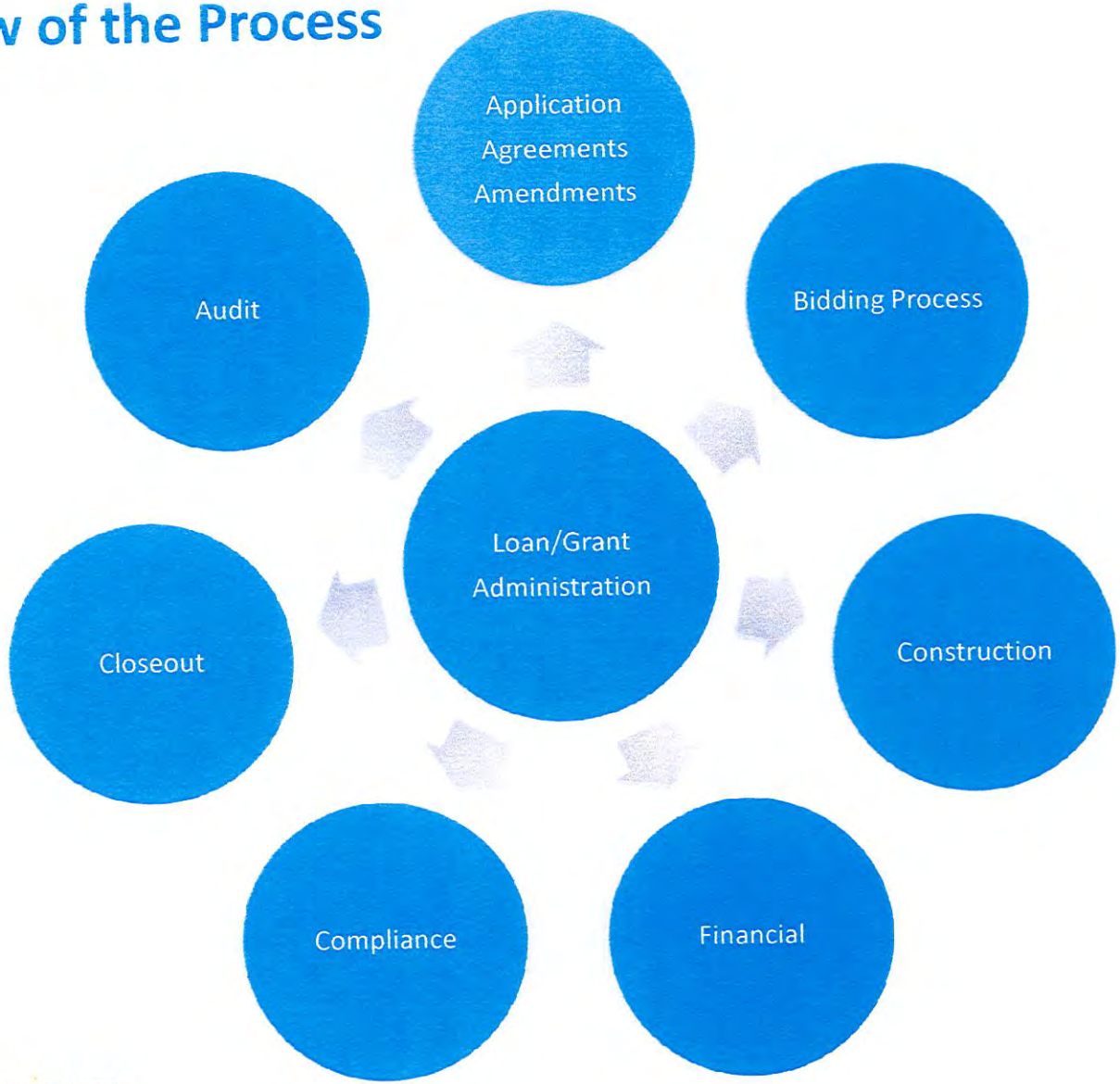


NORTH MIAMI FLORIDA

Estimated Savings, SRF vs. Bond of $3,314,329

OVERVIEW GRAPH

Overview of the Process



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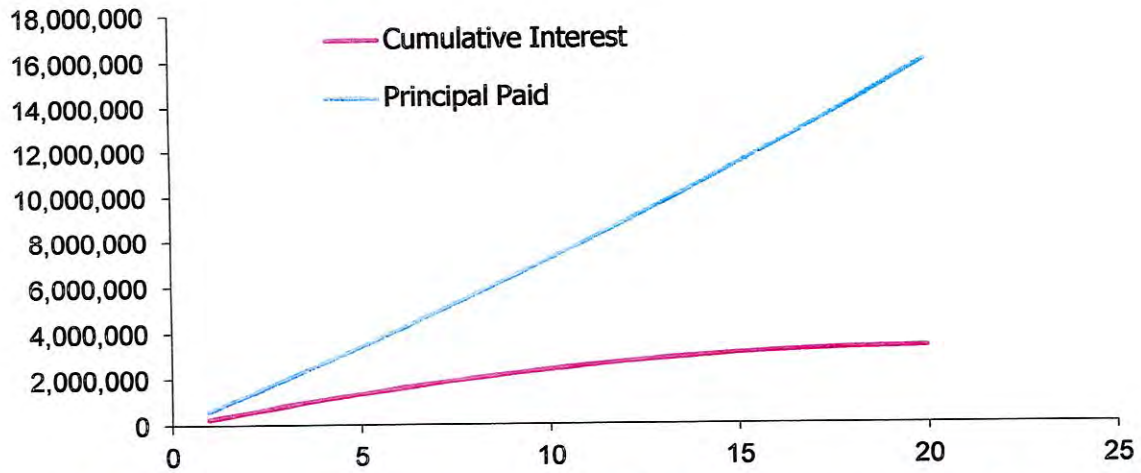

NORTH MIAMI FLORIDA

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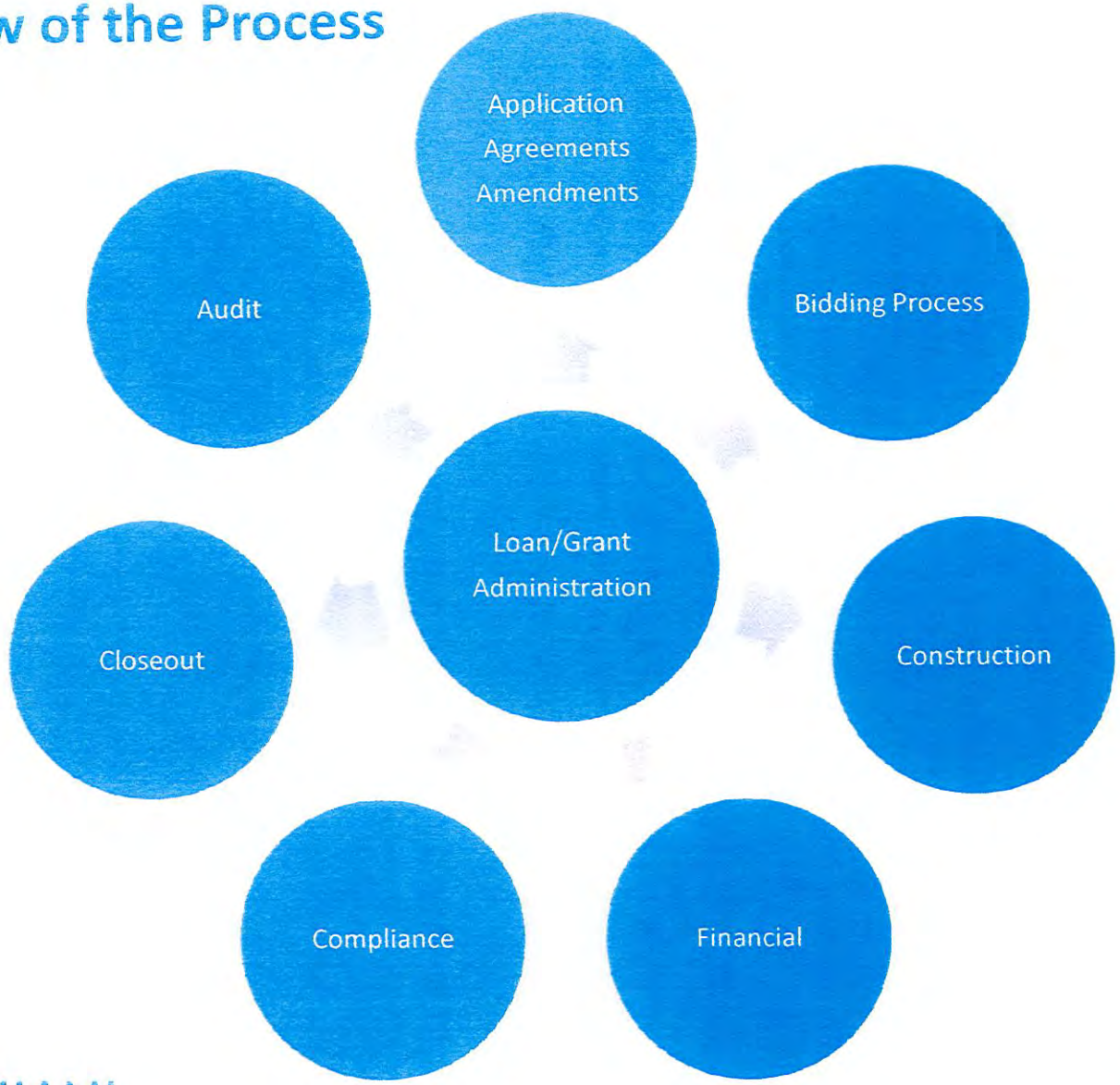

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