

EXECUTIVE SUMMARY

REPORT ON OPERATIONS FOR 2011

B&V PROJECT NO. 176596

PREPARED FOR

Sewerage and Water Board of New Orleans

25 OCTOBER 2012

MISSION STATEMENT

To be one of the best and most respected suppliers of sewer, water, and drainage services in the south-central United States by providing quality, reliable, and cost effective services to our Customers while maintaining fair and ethical treatment of our well-trained and highly motivated employees.

OUR VALUES

Open, honest communication
Trust and respect for each other
Offering and encouraging education and opportunity to employees
Fostering enthusiasm among employees through example of the managers/supervisors
Providing direction and planning and encouraging interdepartmental team work
Assuring reliability in providing services to customers

KEY RESULT AREAS

Customer Satisfaction
Cost Effectiveness
Employee Satisfaction
Capabilities Improvement through Training

25 October 2012

Sewerage & Water Board of New Orleans
625 St. Joseph Street
New Orleans, LA 70165

Dear Board Members:

In accordance with our agreement, we are submitting this Report on Operations of the Water, Sewerage, and Drainage Departments for the year 2011.

The detailed report contains analyses to confirm compliance with the covenants of the General Water Revenue Bond Resolution and the General Sewerage Revenue Bond Resolution and projections of expected future financial activity for the three departments for the period 2012 through 2016. These projections are based upon historical trends and the Board's operating and capital budgets. Projected costs include an allowance for anticipated future price inflation.

Bound separately is the Executive Summary for the Report on Operations for 2011.

We wish to acknowledge the cooperation and assistance of utility staff in providing guidance and information for the study.

We appreciate the opportunity to be of service to the Sewerage and Water Board.

Very truly yours,
BLACK & VEATCH CORPORATION


John Kersten
Vice President


Anna White
Project Manager

Enclosure

Executive Summary

The Report on Operations of the Sewerage and Water Board of New Orleans presents findings of studies made in compliance with covenants of the 1997 Sewerage Revenue Bond Resolution and the 1998 Water Revenue Bond Resolution, and subsequent amendments and resolutions. The report includes recommendations designed to assist the Board and its staff in planning future operational policies. Subjects covered in the report include:

1. Adherence to covenants of the Water Revenue Bond Resolutions and the Sewerage Revenue Bond Resolutions.
2. Ability to finance projected revenue requirements including proposed capital improvements.
3. Operations of the water, sewerage, and drainage systems.

Findings of the report are summarized as follows:

WATER DEPARTMENT

- Financial operations for 2011 have complied with the requirements of the Water Revenue Bond Resolution.
- Total water sales increased from 13,653 million gallons in 2010 to 13,925 million gallons in 2011 and the number of monthly billed customers receiving water service increased from 116,426 in 2010 to 118,745 in 2011.
- Total water revenues increased from \$65,131,445 in 2010 to \$76,398,912 in 2011. In 2011, the Board received \$11,514,936 in operating and maintenance grants from Federal Emergency Management Agency (FEMA) for operating expenses incurred from water repairs performed by Board crews. This amount is included in other revenue. Operation and maintenance expenses (excluding claims) increased from \$52,348,178 in 2010 to \$64,556,538 in 2011. After debt service payments and claims, a balance of \$7,816,059 was available for capital related expenditures in 2011, unadjusted for depreciation. The comparable figure for 2010 was \$8,083,346.
- Capital improvement expenditures totaled \$19,426,109 in 2011. The proposed capital improvement program for the five years 2012 through 2016 totals \$498,001,000.
- A projected cash flow statement showing the timing and magnitude of indicated revenue increases and additional debt financing is presented in Table A. Revenues shown on Line 1 of Table A are based on rates that became effective July 1, 2011. A revised *Financial Plan and Rate Study 2011-2020* (2012 Rate Study) was issued April 30, 2012. Board staff presented resolutions to the Board of Directors in July for the proposed water and sewerage charges proposed in the 2012 Rate Study. The study is currently being reviewed by the City Council. Per direction by Board staff, the proposed revenue increases presented in the 2012 Rate Study are reflected in this report. Future annual water system revenue increases of 12 percent effective December 1, 2012 and July 1 of 2013 through 2016 are shown on Lines 3 through 6 of Table A.
- Additional long term debt financing of \$76,500,000 in 2013 and \$8,500,000 in 2014 is indicated to fund the proposed capital improvement program.

- As demonstrated in Table A, it is anticipated that the capital projects in 2012 will exceed the amount of funding available and some projects will need to be deferred until 2013. Assuming that these projects are deferred as shown on Line 40 of Table A, it is anticipated that current revenue sources will be adequate to readily finance both projected capital program requirements and estimated future operation expenses of the Water Department through the 2012-2016 study period examined herein.

SEWERAGE DEPARTMENT

- Financial operations for 2011 have complied with the requirements of the Sewerage Service Revenue Bond Resolution.
- Total billed wastewater volumes increased from 11,270 million gallons in 2010 to 11,454 million gallons in 2011 and the number of monthly billed customers receiving sewage service increased from 114,385 in 2010 to 116,581 in 2011.
- Total sewerage revenues increased from \$73,386,257 in 2010 to \$74,175,294 in 2011. Operation and maintenance expenses (excluding claims) decreased from \$43,777,876 in 2010 to \$43,147,792 in 2011. After debt service payments and claims, a balance of \$10,751,598 was available for capital related expenditures in 2011, excluding depreciation. The comparable figure for 2010 was \$8,812,954.
- Capital improvement expenditures totaled \$45,836,269 in 2011. The proposed capital improvement program for the five years 2012 through 2016 totals \$394,709,000.
- A projected cash flow statement showing the timing and magnitude of indicated revenue increases and additional debt financing is presented in Table B. Revenues shown on Line 1 of Table B are based on rates that became effective July 1, 2006. Proposed revenue increases, as presented in the 2012 Rate Study, are shown on Lines 3-6 and reflect annual increase of 13 percent effective December 1, 2012 and July 1 of 2013 through 2016.
- In November of 2011, the Louisiana Department of Environmental Quality (LADEQ) provided a \$9,000,000 subordinate loan to the Board. Additional long term debt financing of \$115,000,000 in 2013, \$90,000,000 in 2014, and \$4,000,000 in 2015 is indicated to fund the proposed capital improvement program.
- As demonstrated in Table B, it is anticipated that the capital projects in 2012 and 2013 will exceed the amount of funding available and some projects will need to be deferred to 2014 and 2015. Assuming that these projects are deferred as shown on Line 41 of Table B, it is anticipated that current revenue sources will be adequate to readily finance both projected capital program requirements and estimated future operation expenses of the Sewerage Department during the 2012-2016 study period examined herein.

DRAINAGE DEPARTMENT

- Total drainage revenues increased from \$37,912,872 in 2010 to \$40,468,555 in 2011. Operation and maintenance expenses (excluding claims) increased from \$31,242,040 in 2010 to \$32,080,419 in 2011. After debt service payments and claims, a balance of \$11,018,242 was available for capital related expenditures in 2011, excluding depreciation. The comparable figure for 2010 was \$2,698,454.

- Capital improvement expenditures totaled \$26,478,021 in 2011. The proposed capital improvement program for the five years 2012 through 2016 totals \$2,068,926,000.
- Projected financial operations for the period 2012 through 2016 indicate that current revenue sources are adequate to meet operation and maintenance expenses and total debt service on the existing 1998 and 2002 bond issues for each year of the study period; however, current revenue sources are not adequate to fund the capital projects. As indicated in the 2012 Rate Study additional operating revenue is needed to help fund the capital program. The alternative source of operating revenue is shown on Line 6 of Table C and reflects the amount proposed in the 2012 Rate Study.
- Additional long term debt financing of \$160,000,000 in 2013, \$160,000,000 in 2014, \$124,000,000 in 2015, and \$97,000,000 in 2016 is indicated to fund the proposed capital improvement program.
- It is anticipated that even with the additional operating revenue and bond issues, the capital projects in 2012 will exceed the amount of funding available. As a result, some projects will need to be deferred to 2013, 2014, and 2015. This deferral is shown on Line 31 of Table C.

OTHER FINDINGS

- The Board has a clear understanding of the existing condition of the water and sewage treatment facilities, and is aware of the immediate needs within each division and area. However, funding is needed for the Board to address these issues. A customer rate increase is currently before the council and, if approved, will address the immediate needs of the water department, such as filter rehabilitation.
- The Board should initiate the filter rehabilitation program at the Carrollton WPP, as the filter system is in need of extensive repairs due to leaking pipes, broken valves, broken actuators, and filter media at the end of its expected service life.
- Improvements to the water treatment systems should be implemented to optimize TOC removal.
- The recycle basin pumps at the Carrollton WPP need to be replaced; however, replacement is hampered by limited funding.
- The potable water distribution network and the sanitary sewer collection system present the two biggest challenges, and are being addressed in a systematic manner with the aid of contractors to identify leaks within each system. Continuation of the water main replacement program through FEMA will reduce the number of major leaks in the water system.
- The Board is servicing 100 percent of the population within the collection system. Most of the sewerage pump stations on the East and West Banks have been repaired and are operational. The remaining stations will be completed in 2012.
- A \$10 million pilot study was awarded by the Coastal Impact Assistance Program to the Board for the wetlands assimilation program. Twenty acres of wetlands is currently under construction, and includes construction of the wetland cells and planting of cypress trees. Once construction is complete, approximately 0.12 mgd of final effluent flow from the East Bank Wastewater Treatment Plant will be pumped to the wetlands area.
- The Board should continue efforts to storm proof critical facilities as funding becomes available.

- In an effort to alleviate personnel issues, the Board has suspended the Domicile Policy, which required Board employees to live in the City of New Orleans. This change in policy will allow personnel hired by the Board to live outside the City and retain the right to promotions. In addition, it would be beneficial if the Board would consider succession planning for key areas of operations, where personnel are close to retirement age, to allow for easier transition of daily responsibilities once retirements are announced.
- It is important that the Board concentrate on filling vacancies of highly skilled technical positions such as engineers, machinists, and electricians, especially during this economic downturn, as it may be easier to recruit staff with the required skills.

Table A

Water Department
Analysis of Ability of Forecasted Revenue to
Finance Projected Revenue Requirements

Line No.				2012	2013	2014	2015	2016
				\$	\$	\$	\$	\$
Operating Fund								
1	Revenue from Charges			60,540,900	61,283,200	62,032,400	62,790,200	63,554,400
	Additional Revenue Required							
	Year	Revenue Increase	Months Effective					
2	2012	12.0%	2.0	1,210,800	7,354,000	7,443,900	7,534,800	7,626,500
3	2013	12.0%	5.0		3,431,900	8,337,200	8,439,000	8,541,700
4	2014	12.0%	5.0			3,890,700	9,451,700	9,566,700
5	2015	12.0%	5.0				4,410,800	10,714,700
6	2016	12.0%	5.0					5,000,200
7	Total Additional Revenue			1,210,800	10,785,900	19,671,800	29,836,300	41,449,800
8	Total Service Charge Revenue			61,751,700	72,069,100	81,704,200	92,626,500	105,004,200
9	Interest Income			192,600	185,900	146,800	148,100	147,300
10	Three-Mill Revenue Sharing			114,500	114,500	114,500	114,500	114,500
11	Plumbing Insp. & License Fees			378,000	378,000	378,000	378,000	378,000
12	Other Miscellaneous Income			5,157,100	5,157,100	5,157,100	5,157,100	5,157,100
13	Operating & Maintenance Grants			10,266,800	9,942,600	9,726,400	9,186,100	0
14	Interest from Bond Reserve Fund			74,000	108,000	145,000	148,000	148,000
15	Total Operating Revenue			77,934,700	87,955,200	97,372,000	107,758,300	110,949,100
16	Operation & Maintenance			(56,471,600)	(58,165,500)	(59,910,700)	(61,707,700)	(63,559,100)
17	Provision for Claims			(716,800)	(716,800)	(716,800)	(436,000)	(436,000)
18	Provision for Doubtful Accounts			(1,210,800)	(1,225,700)	(1,240,600)	(1,255,800)	(1,271,100)
19	Net Operating Revenue			19,535,500	27,847,200	35,503,900	44,358,800	45,682,900
Debt Service								
Senior Lien Revenue Bonds								
20	Existing			(3,918,300)	(3,927,600)	(3,917,800)	(3,903,400)	(3,893,100)
21	Projected			0	0	0	0	(3,935,100)
22	Subtotal			(3,918,300)	(3,927,600)	(3,917,800)	(3,903,400)	(7,828,200)
23	Gulf Opportunity Zone Act Loan			(639,900)	(639,900)	(639,900)	(639,900)	(639,900)
24	Special Community Disaster Loan Payable			0	0	0	0	(2,440,200)
25	Total Debt Service			(4,558,200)	(4,567,500)	(4,557,700)	(4,543,300)	(10,908,300)
26	Transfer to Construction			0	(23,000,000)	(29,000,000)	(38,000,000)	(35,000,000)
27	Due from (to) Other Departments			(8,300,000)	(8,300,000)	(1,750,000)	(1,750,000)	0
28	Net Annual Balance			6,677,300	(8,020,300)	196,200	65,500	(225,400)
29	Beginning of Year Cash Balance			9,645,100	16,322,400	8,302,100	8,498,300	8,563,800
30	End of Year Balance			16,322,400	8,302,100	8,498,300	8,563,800	8,338,400
Capital Projects Funding								
31	Funds Available at Beginning of Year			30,912,300	642,600	454,700	481,200	11,799,700
32	Revenue Bond Proceeds			0	76,500,000	8,500,000	0	0
33	Operation Fund Transfers			0	23,000,000	29,000,000	38,000,000	35,000,000
34	Participation By Others			69,011,000	93,822,000	48,762,000	48,430,000	49,110,000
35	Interest Income			242,100	194,200	63,100	124,500	210,600
36	Total Funds Available			100,165,400	194,158,800	86,779,800	87,035,700	96,120,300
37	Obligated Contracts & Capital Jobs			(11,527,800)	0	0	0	0
38	Reinvestment in Assets			(31,865,000)	(36,977,000)	(29,290,000)	(27,416,000)	(31,303,000)
39	Major Capital Additions			(70,130,000)	(120,720,000)	(54,610,000)	(47,820,000)	(47,870,000)
40	Deferred Capital Improvements			14,000,000	(14,420,000)	0	0	0
41	Bond Issuance Expense			0	(1,147,500)	(127,500)	0	0
42	Capitalized Interest Requirement			0	(13,770,000)	(1,530,000)	0	0
43	Revenue Bond Reserve Fund			0	(6,669,600)	(741,100)	0	0
44	Total Application of Funds			(99,522,800)	(193,704,100)	(86,298,600)	(75,236,000)	(79,173,000)
45	End of Year Balance			642,600	454,700	481,200	11,799,700	16,947,300
Debt Service Coverage								
46	Annual Test			429%	610%	779%	976%	419%
Additional Bonds Test								
47	Prior Two-Year Test			430%	123%	189%	252%	317%
48	Maximum Future Debt Service Test			503%	239%	282%	352%	363%
49	Coverage 5 Years after Sale			414%	413%	408%	403%	397%

Table B

**Sewerage Department
Analysis of Ability of Forecasted Revenue to
Finance Projected Revenue Requirements**

Line No.				2012	2013	2014	2015	2016
			\$	\$	\$	\$	\$	
Operating Fund								
1	Revenue from Charges			71,480,900	72,360,800	73,250,100	74,151,900	75,065,900
	Additional Revenue Required							
		Revenue	Months					
	Year	Increase	Effective					
2	2012	13.0%	2.0	1,548,800	9,406,900	9,522,500	9,639,700	9,758,600
3	2013	13.0%	5.0		4,429,100	10,760,400	10,892,900	11,027,200
4	2014	13.0%	5.0			5,066,400	12,309,000	12,460,700
5	2015	13.0%	5.0				5,795,500	14,080,600
6	2016	13.0%	5.0					6,629,600
7	Total Additional Revenue			1,548,800	13,836,000	25,349,300	38,637,100	53,956,700
8	Total Service Charge Revenue			73,029,700	86,196,800	98,599,400	112,789,000	129,022,600
9	Interest Income			122,500	140,500	118,900	120,600	125,600
10	Three-Mill Revenue Sharing			142,800	142,800	142,800	142,800	142,800
11	Plumbing Insp. & License Fees			378,000	378,000	378,000	378,000	378,000
12	Other Miscellaneous Income			1,040,100	1,040,100	1,040,100	1,040,100	1,040,100
13	Operating & Maintenance Grants			6,267,400	6,069,400	5,937,500	5,607,600	0
14	Interest from Bond Reserve Fund			258,000	308,000	398,000	439,000	441,000
15	Total Operating Revenue			81,238,500	94,275,600	106,614,700	120,517,100	131,150,100
16	Operation & Maintenance			(42,216,400)	(43,482,900)	(44,787,500)	(46,130,900)	(47,515,200)
17	Provision for Claims			(341,000)	(341,000)	(486,000)	(486,000)	(486,000)
18	Provision for Doubtful Accounts			(1,460,600)	(1,723,900)	(1,972,000)	(2,255,800)	(2,580,500)
19	Net Operating Revenue			37,220,500	48,727,800	59,369,200	71,644,400	80,568,400
Debt Service								
Senior Lien Revenue Bonds								
20	Existing			(20,629,700)	(20,604,000)	(20,630,600)	(20,664,300)	(20,713,600)
21	Projected			0	0	0	0	(2,957,700)
22	Subtotal			(20,629,700)	(20,604,000)	(20,630,600)	(20,664,300)	(23,671,300)
Subordinate Revenue Bonds								
23	Existing			(155,300)	(534,800)	(530,500)	(526,200)	(522,000)
24	Gulf Opportunity Zone Act Loan			(6,235,200)	(6,235,200)	(6,235,200)	(6,235,200)	(6,235,200)
25	Special Community Disaster Loan Payal			0	0	0	0	(2,440,200)
26	Total Debt Service			(27,020,200)	(27,374,000)	(27,396,300)	(27,425,700)	(32,868,700)
27	Transfer to Construction			(4,000,000)	(27,500,000)	(29,500,000)	(41,500,000)	(47,000,000)
28	Due from (to) Other Departments			1,775,000	1,775,000	(2,425,000)	(2,425,000)	0
29	Net Annual Balance			7,975,300	(4,371,200)	47,900	293,700	699,700
30	Beginning of Year Cash Balance			2,083,100	10,058,400	5,687,200	5,735,100	6,028,800
31	End of Year Balance			10,058,400	5,687,200	5,735,100	6,028,800	6,728,500
Capital Projects Funding								
32	Funds Available at Beginning of Year			19,726,700	183,500	869,900	490,700	627,973
33	Revenue Bond Proceeds			0	115,000,000	90,000,000	4,000,000	0
34	Operation Fund Transfers			4,000,000	27,500,000	29,500,000	41,500,000	47,000,000
35	Participation by Others			67,352,000	16,143,000	7,843,000	7,486,000	8,360,000
36	Interest Income			100,100	36,600	28,400	3,100	69,200
37	Total Funds Available			91,178,800	158,863,100	128,241,300	53,479,800	56,057,173
38	Obligated Contracts & Capital Jobs			(18,339,300)	0	0	0	0
39	Reinvestment in Assets			(63,670,000)	(120,095,000)	(48,114,000)	(36,815,000)	(31,932,000)
40	Major Capital Additions			(55,986,000)	(11,447,000)	(8,240,000)	(7,450,000)	(10,960,000)
41	Deferred Capital Improvements			47,000,000	6,000,000	(46,000,000)	(7,458,127)	0
42	Bond Issuance Expense			0	(1,725,000)	(1,350,000)	(60,000)	0
43	Capitalized Interest Requirement			0	(20,700,000)	(16,200,000)	(720,000)	0
44	Revenue Bond Reserve Fund			0	(10,026,200)	(7,846,600)	(348,700)	0
45	Total Application of Funds			(90,995,300)	(157,993,200)	(127,750,600)	(52,851,827)	(42,892,000)
46	End of Year Balance			183,500	869,900	490,700	627,973	13,165,173
Debt Service Coverage								
47	Annual Test			137.8%	178.0%	216.7%	261.2%	245.1%
Additional Bonds Test								
48	Prior Two-Year Test			191%	112%	111%	138%	168%
49	Maximum Future Debt Service Test			276%	205%	234%	282%	318%
50	Coverage 5 Years after Sale			379%	438%	503%	576%	746%

Table C

**Drainage Department
Analysis of Ability of Forecasted Revenue to
Finance Projected Revenue Requirements**

Line No		2012	2013	2014	2015	2016
		\$	\$	\$	\$	\$
Operating Fund						
1	Three-Mill Ad Valorem Tax Revenue (4.66 Mills)	10,727,500	10,727,500	10,834,800	10,943,100	11,052,600
2	Six-Mill Ad Valorem Tax Revenue (4.71 Mills)	10,849,000	10,849,000	10,957,400	11,067,000	11,177,700
3	Nine-Mill Ad Valorem Tax Revenue (7.06 Mills)	16,081,700	16,081,700	16,242,500	16,405,000	16,569,000
4	Other Miscellaneous Income	599,302	599,302	599,302	599,302	599,302
5	Interest Income	62,400	61,600	61,600	63,200	62,200
6	Alternative Source of Operating Revenue	0	11,750,000	23,500,000	35,250,000	49,350,000
7	Total Operating Revenue	38,319,902	50,069,102	62,195,602	74,327,602	88,810,802
8	Operation & Maintenance	(30,714,400)	(31,635,500)	(32,584,800)	(33,562,400)	(34,569,300)
9	Provision for Claims	(357,600)	(357,600)	(921,000)	(921,000)	(921,000)
10	Net Operating Revenue	7,247,902	18,076,002	28,689,802	39,844,202	53,320,502
Debt Service						
Senior Lien Revenue Bonds						
11	Existing	(2,207,000)	(2,216,800)	(2,220,100)	(2,220,700)	(2,223,300)
12	Projected	0	(2,906,000)	(14,529,800)	(25,499,700)	(34,017,800)
13	Subtotal	(2,207,000)	(5,122,800)	(16,749,900)	(27,720,400)	(36,241,100)
14	Special Community Disaster Loan Payable	0	0	0	0	(2,440,200)
15	SELA Capital Repayment	0	(1,300,000)	(3,900,000)	(7,800,000)	(12,875,000)
16	Total Debt Service	(2,207,000)	(6,422,800)	(20,649,900)	(35,520,400)	(51,556,300)
17	Transfer to Construction	(6,000,000)	(13,000,000)	(6,500,000)	(3,000,000)	(2,000,000)
18	Due from (to) Other Departments	1,075,000	1,075,000	(1,275,000)	(1,275,000)	0
19	Net Annual Balance	115,902	(271,798)	264,902	48,802	(235,798)
20	Beginning of Year Cash Balance	4,431,200	4,547,102	4,275,304	4,540,206	4,589,008
21	End of Year Balance	4,547,102	4,275,304	4,540,206	4,589,008	4,353,210
Capital Projects Funding						
22	Funds Available at Beginning of Year	50,036,100	601,700	216,400	224,000	478,661
23	Revenue Bond Proceeds	0	160,000,000	160,000,000	124,000,000	97,000,000
24	Operation Fund Transfers	6,000,000	13,000,000	6,500,000	3,000,000	2,000,000
25	Participation by Others	1,138,238,000	110,869,000	77,620,000	54,748,000	139,900,000
26	Interest Income	254,800	46,500	46,400	36,600	29,500
27	Total Funds Available	1,194,528,900	284,517,200	244,382,800	182,008,600	239,408,161
28	Obligated Contracts & Capital Jobs	(20,992,200)	0	0	0	0
29	Reinvestment in Assets	(39,942,000)	(22,879,000)	(37,453,000)	(19,305,000)	(14,345,000)
30	Major Capital Additions	(1,295,993,000)	(184,398,000)	(149,682,000)	(89,071,000)	(215,858,000)
31	Deferred Capital Improvements	163,000,000	(63,000,000)	(43,000,000)	(62,285,439)	0
32	Bond Issuance Expense	0	(2,400,000)	(2,400,000)	(1,860,000)	(1,455,000)
33	Revenue Bond Reserve Fund	0	(11,623,800)	(11,623,800)	(9,008,500)	(7,046,900)
34	Total Application of Funds	(1,193,927,200)	(284,300,800)	(244,158,800)	(181,529,939)	(238,704,900)
35	End of Year Balance	601,700	216,400	224,000	478,661	703,261