

EXECUTIVE SUMMARY

REPORT ON OPERATIONS FOR 2013

B&V PROJECT NO. 183103

PREPARED FOR

Sewerage and Water Board of New Orleans

17 NOVEMBER 2014

MISSION STATEMENT

Our mission is to provide safe drinking water to everyone in New Orleans;
To remove waste water for safe return to the environment;
To drain away storm water;
To provide water for fire protection;
To provide information about products and services;
And to do all of this continuously at a reasonable cost to the community

VISION STATEMENT

Our vision is to have the trust and confidence of our customers
for reliable and sustainable water services

OUR VALUES

We will focus on our customer and stakeholders
We will teach each customer and employee with dignity and respect
We will value each employee, their work, and their commitment
We will be trustful, trustworthy and transparent
We will be knowledgeable and diligent in the performance of our duties
We will use financial resources prudently
We will be accountable for our performance
We will continuously improve our performance
We will ensure that the systems that provide our services remain viable for future generations
We will remain on the job and will be prepared for storms and other risks

November 17, 2014

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 2013.

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 2014 through 2018. 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 2013.

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



Les K. Lampe
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 2013 have complied with the requirements of the Water Revenue Bond Resolution.
- Total water sales decreased from 13,752 million gallons in 2012 to 13,573 million gallons in 2013 and the number of monthly billed customers receiving water service increased from 121,435 in 2012 to 126,106 in 2013.
- Total water revenues decreased from \$71,668,008 in 2012 to \$70,257,896 in 2013 primarily due to a decrease in the amount of operation and maintenance grants received. In 2013, the Board received \$1,981,569 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 \$61,761,783 in 2012 to \$63,378,612 in 2013. After debt service payments and claims, a balance of \$2,159,183 was available for capital related expenditures in 2013, unadjusted for depreciation. The comparable figure for 2012 was \$5,762,390.
- Capital improvement expenditures totaled \$36,210,871 in 2014. The proposed capital improvement program for the five years 2014 through 2018 totals \$475,731,000. The Board has recognized that the adopted five-year capital improvement program has a significant amount of expense in the first three years and therefore, in an effort to more evenly spread the costs throughout the period, identified projects that could be deferred from 2015 and 2016 until later year.
- 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 January 1, 2014. Revenue from future annual water system revenue increases of 10 percent effective January 1, 2015 through January 1, 2018 are shown on Line 2 of Table 11.
- In July of 2014 the Board issued Water Revenue and Refunding Bonds, Series 2014 in the amount of \$103,525,000. Approximately 74 percent of the proceeds are anticipated to provide new money

to help fund planned major capital program needs, with the balance to be used to refund outstanding Series 1998 and Series 2002 bonds. Additional long term debt financing of \$47,000,000 in 2015, \$45,000,000 in 2016, \$39,000,000 in 2017, and \$42,000,000 in 2018 is indicated to fund the proposed capital improvement program.

- As demonstrated in 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 during the 2014-2018 study period examined herein assuming that a portion of the adopted capital costs in the early years are deferred to later years within the five-year period.
- With the issuance of the Series 2014 revenue bonds, the 1998 General Water Bond Resolution is no longer applicable and in its place is the 2014 General Water Service Revenue Bond Resolution. It is anticipated that the required rate covenant coverage test and additional bond coverage test will be met for each year of the five-year period.

SEWERAGE DEPARTMENT

- Financial operations for 2013 have complied with the requirements of the Sewerage Service Revenue Bond Resolution.
- Total billed wastewater volumes decreased from 11,491 million gallons in 2012 to 11,317 million gallons in 2013 and the number of monthly billed customers receiving sewage service increased from 119,162 in 2012 to 123,701 in 2013.
- Total sewerage revenues increased from \$72,399,088 in 2012 to \$80,081,051 in 2013. Operation and maintenance expenses (excluding claims) increased from \$44,293,232 in 2012 to \$45,566,211 in 2013. After debt service payments and claims, a balance of \$14,434,460 was available for capital related expenditures in 2013, excluding depreciation. The comparable figure for 2012 was \$7,268,458.
- Capital improvement expenditures totaled \$54,393,889 in 2013. The proposed capital improvement program for the five years 2014 through 2018 totals \$308,086,000.
- 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 January 1, 2014. Revenue from future annual wastewater system revenue increases of 10 percent effective January 1, 2015 through January 1, 2018 are shown on Line 2 of table 11.
- In July of 2014, the Board issued Sewerage Revenue and Refunding Bonds, Series 2014 in the amount of \$158,990,000. Approximately 27 percent of the proceeds are anticipated to provide new money to help fund planned major capital program needs, with the balance to be used to refund outstanding Series 1997, Series 1998, Series 2000A, Series 2000B, Series 2001, Series 2002, Series 2003, Series 2004, and Series 2009 bonds. Additional long term debt financing of \$23,000,000 in 2015, \$24,500,000 in 2016, \$21,000,000 in 2017, and \$28,000,000 in 2018 is indicated to fund the proposed capital improvement program.
- As demonstrated in Table B, it is anticipated that current revenue sources will be adequate to readily finance both projected capital program requirements as currently scheduled and estimated future operation expenses of the Sewerage Department during the 2014-2018 study period.

- With the issuance of the Series 2014 revenue bonds, the 1997 General Sewerage Service Revenue Bond Resolution is no longer applicable and in its place is the 2014 General Sewerage Service Revenue Bond Resolution. It is anticipated that the required rate covenant coverage test and additional bond coverage test will be met for each year of the five-year period.

DRAINAGE DEPARTMENT

- Total drainage revenues increased from \$45,275,067 in 2012 to \$46,619,029 in 2013. Operation and maintenance expenses (excluding claims) increased slightly from \$31,831,734 in 2012 to \$31,893,808 in 2013. After debt service payments and claims, a balance of \$11,311,249 was available for capital related expenditures in 2013, excluding depreciation. The comparable figure for 2012 was \$11,910,087.
- Capital improvement expenditures totaled \$25,140,359 in 2013. The proposed capital improvement program for the five years 2014 through 2018 totals \$854,391,000.
- Projected financial operations for the period 2014 through 2018 indicate that current revenue sources are adequate to meet operation and maintenance expenses for each year of the study period, assuming that the three-mill ad valorem tax is reauthorized in 2017; however, current revenue sources are not adequate to fund the capital projects. As indicated in the *Financial Plan and Rate Study 2011-2020*, 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.
- It is anticipated that in November of 2014, the Board will issue Drainage Refunding Bonds, Series 2014 in the amount of \$14,945,000. The proceeds of the bonds will be used to refund all outstanding drainage revenue bonds. Additional long term debt financing of \$15,000,000 in 2015, \$15,000,000 in 2016, \$60,000,000 in 2017, and \$60,000,000 in 2018 is indicated to fund the proposed capital improvement program.
- Under the existing General Drainage Bond Resolution, the amount of additional debt that can be issued is limited due to the additional bonds test. It is suggested that when a new funding source is developed, the Board work with its bond counsel and financial advisor to refund all outstanding debt at that time and issue new parity bonds reflecting a new general bond resolution that includes the new funding source in the coverage calculation and reflects covenants more consistent with the 2014 water and sewerage resolutions.
- Due to the requirements of the existing additional bonds, it is anticipated that the capital projects in 2014 through 2017 will exceed the amount of funding available from the Drainage Department during the 2014-2018 study period. It is recommended that the Board defer capital projects in 2014 through 2017 the general bond resolution has been revised and the Board has the capacity to debt finance more projects.

OTHER FINDINGS

The following items comprise a summary of findings during the 2013 site inspections:

- The management team consists of individuals with significant water, sewerage, and drainage experience. This experience has been developed both internally at SWBNO and at other respected major water and sewer utilities.

- Similar to water and sewer utilities across the U.S., the departments that comprise SWBNO are faced with a significant number of pending retirements. Approximately 40 percent of current employees are either on the Deferred Retirement Option Plan (DROP) program or are eligible for retirement. Unless these employees are replaced with a steady influx of qualified replacements, these pending retirements pose a significant threat to SWBNO's ability to perform its core operational and administrative functions. Succession planning and recruitment of qualified employees will be a key element for SWBNO to mitigate the pending retirements.
- Several departments are experiencing vacancies, including the Water Purification unit of the Operations Department, as well as the Facilities Maintenance and Networks Departments. SWBNO needs to address these vacancies as soon as possible to ensure effective operational and maintenance performance and administrative oversight.
- The SWBNO has a clear understanding of the existing conditions of the drainage water and sewage facilities, and is aware of the immediate needs within each division and area; however, funding is needed for the SWBNO to address these issues. Only water and sewer customer rates increases have been approved, and the SWBNO is currently prioritizing immediate needs such as filter rehabilitation at the Carrollton WWP.
- The SWBNO 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 being at the end of its expected service life.
- 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 and ESSA through FEMA will reduce the number of major leaks in the water and sewer systems, respectively.
- The SWBNO is servicing 100 percent of the population within the collection system. Most of the sewer pump stations on the East and West Banks have been repaired and are operational.
- The sewage plants are meeting permit except for two excursions in 2013. One excursion was attributed to a sampling error, and the other was due to a contractor issue. The SWBNO and the contract operator, Veolia, have addressed each issue.

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

Line No.	Description	Fiscal Year Ending December 31,				
		2014	2015	2016	2017	2018
		\$	\$	\$	\$	\$
1	Revenue from Charges	72,722,400	73,707,200	74,705,700	75,727,700	76,773,600
2	Total Additional Revenue (a)	0	7,343,300	15,580,000	24,812,900	35,220,900
3	Total Service Charge Revenue	72,722,400	81,050,500	90,285,700	100,540,600	111,994,500
4	Interest Income	210,400	72,600	66,100	67,700	70,500
5	Plumbing Insp. & License Fees	343,900	343,900	343,900	343,900	343,900
6	Other Miscellaneous Income	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
7	Revenue from Internal field Review (b)	727,200	810,500	902,900	1,005,400	1,119,900
8	Sale of Water to School District	0	968,000	1,064,800	1,171,300	1,288,400
9	Interest from Bond Reserve Fund	92,000	126,000	167,000	204,000	239,000
10	Total Operating Revenue	75,595,900	84,871,500	94,330,400	104,832,900	116,556,200
11	Operation & Maintenance	(67,562,700)	(69,589,700)	(71,677,400)	(73,827,600)	(76,042,500)
12	Additional Operating & Maintenance	0	(687,800)	(1,375,500)	(2,063,300)	(2,751,000)
13	Operating & Maintenance Savings	0	401,600	461,700	524,900	554,900
14	Provision for Claims	(738,300)	(760,500)	(783,300)	(806,800)	(831,000)
15	Provision for Doubtful Accounts	(1,454,400)	(1,474,100)	(1,494,100)	(1,514,600)	(1,535,500)
16	Net Operating Revenue	5,840,500	12,761,000	19,461,800	27,145,500	35,951,100
	Debt Service					
	Senior Lien Revenue Bonds					
17	Existing	(798,500)	0	0	0	0
18	Projected	(2,142,400)	(3,500,000)	(5,501,300)	(9,759,000)	(13,782,200)
19	Total Senior Lien Revenue Bonds	(2,940,900)	(3,500,000)	(5,501,300)	(9,759,000)	(13,782,200)
	Subordinate Revenue Bonds					
20	Existing	(3,900)	0	0	0	0
21	Gulf Opportunity Zone Act Loan	(639,900)	(639,900)	(639,900)	(639,900)	(639,900)
22	Total Debt Service	(3,584,700)	(4,139,900)	(6,141,200)	(10,398,900)	(14,422,100)
23	Transfer to Construction	0	(2,000,000)	(10,500,000)	(15,500,000)	(20,000,000)
24	Due from/(to) Other Departments	(3,891,044)	(3,891,044)	(2,186,000)	(436,000)	(436,000)
25	Transfer to Operating Reserve Fund	(14,327,600)	(2,331,700)	(570,400)	(669,500)	(684,200)
26	Transfer from/(to) Rate Stabilization Fund	0	0	0	0	0
27	Net Annual Balance	(15,962,844)	398,356	64,200	141,100	408,800
28	Beginning of Year Cash Balance	16,029,700	66,856	465,212	529,412	670,512
29	End of Year Balance	66,856	465,212	529,412	670,512	1,079,312

(a) Reflects revenue from an eight-year series of annual 10% rate increases effective January 1, 2013; adopted by the City Council in 2012.

(b) Estimated as 1% of Total Service Charge Revenue.

Table B

Sewerage Department

Analysis of Ability of Forecasted Revenue to

Finance Projected Revenue Requirements

Line No.	Description	Fiscal Year Ending December 31,				
		2014	2015	2016	2017	2018
		\$	\$	\$	\$	\$
1	Revenue from Charges	87,386,700	88,344,400	89,324,400	90,322,400	91,341,300
2	Total Additional Revenue (a)	0	8,800,100	18,700,700	29,655,900	42,076,500
3	Total Service Charge Revenue	87,386,700	97,144,500	108,025,100	119,978,300	133,417,800
4	Interest Income	126,600	114,600	109,600	66,000	68,100
5	Plumbing Insp. & License Fees	343,900	343,900	343,900	343,900	343,900
6	Other Miscellaneous Income	288,900	288,900	288,900	288,900	288,900
7	Revenue from Internal field Review (b)	873,900	971,400	1,080,300	1,199,800	1,334,200
8	Sale of Water to School District	0	1,512,500	1,663,800	1,830,200	2,013,200
9	Operating & Maintenance Grants	13,938,000	7,858,000	0	0	0
10	Interest from Bond Reserve Fund	336,000	237,000	258,000	278,000	300,000
11	Total Operating Revenue	103,294,000	108,470,800	111,769,600	123,985,100	137,766,100
12	Operation & Maintenance	(51,483,900)	(53,028,600)	(54,619,200)	(56,257,700)	(57,945,700)
13	Additional Operating & Maintenance	0	(2,159,300)	(4,318,500)	(6,607,300)	(8,964,800)
14	Operating & Maintenance Savings	0	293,900	605,100	647,700	691,800
15	Provision for Claims	(351,200)	(361,700)	(372,600)	(383,700)	(395,300)
16	Provision for Doubtful Accounts	(1,747,700)	(1,942,900)	(2,160,500)	(2,399,600)	(2,668,400)
17	Net Operating Revenue	49,711,200	51,272,200	50,903,900	58,984,500	68,483,700
	Debt Service					
	Senior Lien Revenue Bonds					
18	Existing	(18,011,600)	(513,300)	(531,700)	(528,700)	(527,500)
19	Projected	(1,980,500)	(15,898,000)	(18,042,400)	(20,339,300)	(20,774,700)
20	Subtotal	(19,992,100)	(16,411,300)	(18,574,100)	(20,868,000)	(21,302,200)
	Subordinate Revenue Bonds					
21	Existing	(20,100)	0	0	0	0
22	Gulf Opportunity Zone Act Loan	(7,290,700)	(7,290,700)	(7,290,700)	(7,290,700)	(7,290,700)
23	Total Debt Service	(27,302,900)	(23,702,000)	(25,864,800)	(28,158,700)	(28,592,900)
24	Transfer to Construction	(19,000,000)	(15,000,000)	(30,500,000)	(29,000,000)	(39,000,000)
25	Due from/(to) Other Departments	(2,765,950)	(2,911,000)	(2,911,000)	(486,000)	0
26	Transfer to Operating Reserve Fund	(11,235,500)	(1,459,200)	(840,800)	(847,900)	(957,900)
27	Transfer from/(to) Rate Stabilization Fund	0	0	0	0	0
28	Net Annual Balance	(10,593,150)	8,200,000	(9,212,700)	491,900	(67,100)
29	Beginning of Year Cash Balance	12,124,400	1,531,250	9,731,250	518,550	1,010,450
30	End of Year Balance	1,531,250	9,731,250	518,550	1,010,450	943,350

(a) Reflects revenue from an eight-year series of annual 10% rate increases effective January 1, 2013; adopted by the City Council in 2012.

(b) Estimated as 1% of Total Service Charge Revenue.

Table C
Drainage Department
Analysis of Ability of Forecasted Revenue to
Finance Projected Revenue Requirements

Line No	Description	Fiscal Year Ending December 31,				
		2014	2015	2016	2017	2018
		\$	\$	\$	\$	\$
1	Three-Mill Ad Valorem Tax Revenue (4.66 Mills)	12,296,400	12,296,400	12,419,400	12,543,500	12,668,900
2	Six-Mill Ad Valorem Tax Revenue (4.71 Mills)	12,429,100	12,429,100	12,553,400	12,678,900	12,805,700
3	Nine-Mill Ad Valorem Tax Revenue (7.06 Mills)	18,429,600	18,429,600	18,613,900	18,800,000	18,988,000
4	Drainage Fee Revenue	0	0	34,749,800	34,749,800	34,749,800
5	Total Additional Drainage Fee Revenue (a)	0	0	0	3,185,400	6,978,900
6	Other Miscellaneous Income	1,069,700	1,080,000	1,091,000	1,102,000	1,113,000
7	Interest Income	35,300	25,700	69,700	124,100	84,500
8	Interest from Bond Reserve Fund	0	0	0	0	0
9	Total Operating Revenue	44,260,100	44,260,800	79,497,200	83,183,700	87,388,800
10	Operation & Maintenance	(35,026,200)	(36,076,800)	(37,159,100)	(38,274,000)	(39,421,800)
11	Additional Operating & Maintenance	(2,000,000)	(5,537,500)	(9,076,400)	(26,116,800)	(27,096,200)
12	Operating & Maintenance Savings	2,405,100	2,495,700	2,589,900	2,687,900	2,789,900
13	Provision for Claims	(1,233,400)	(1,270,400)	(1,308,500)	(1,347,800)	(1,388,200)
14	Provision for Doubtful Accounts	(215,800)	(215,800)	(217,900)	(220,100)	(222,300)
15	Net Operating Revenue	8,189,800	3,656,000	34,325,200	19,912,900	22,050,200
	Debt Service					
	Senior Lien Revenue Bonds					
16	Existing	(506,800)	0	0	0	0
17	Projected	(548,211)	(2,798,200)	(3,982,100)	(6,921,850)	(11,622,450)
18	Subtotal	(1,055,011)	(2,798,200)	(3,982,100)	(6,921,850)	(11,622,450)
19	Gulf Opportunity Zone Act Loan	(407,800)	(407,800)	(407,800)	(407,800)	(407,800)
20	SELA Capital Repayment	0	0	(8,300,000)	(8,300,000)	(8,300,000)
21	Total Debt Service	(1,462,811)	(3,206,000)	(12,689,900)	(15,629,650)	(20,330,250)
22	Transfer to Construction	0	(1,000,000)	(7,000,000)	(7,000,000)	(7,000,000)
23	Due from (to) Other Departments	(1,632,600)	(2,196,000)	(2,196,000)	(921,000)	0
24	Transfer to Operating Reserve Fund	(3,932,100)	(336,200)	(554,500)	(558,100)	(2,226,200)
25	Net Annual Balance	1,162,289	(3,082,200)	11,884,800	(4,195,850)	(7,506,250)
26	Beginning of Year Cash Balance	2,172,300	3,334,589	252,389	12,137,189	7,941,339
27	End of Year Balance	3,334,589	252,389	12,137,189	7,941,339	435,089
	Debt Service Coverage					
28	Annual Test (b)	1746.9%	658.6%	467.4%	271.6%	163.4%
29	Additional Bonds Test (c)	818.3%	538.0%	404.7%	202.3%	135.8%

(a) Assumes annual 10% rate increases in the Drainage Fee beginning in 2017.

(b) The General Bond Resolution requires Nine-Mill Ad Valorem Tax Revenue to equal or exceed 100% of annual debt service

(c) The General Bond Resolution requires Nine-Mill Ad Valorem Tax Revenue to equal or exceed 133% of maximum annual debt service.