

SEWERAGE & WATER BOARD OF NEW ORLEANS

FINANCE & ADMINISTRATION COMMITTEE MEETING

MONDAY, OCTOBER 19, 2015

3:00 PM

Scott Jacobs, Chair • Joseph Peychaud, Vice Chair • Kimberly Thomas • Dr. Tamika Duplessis • Kerri Kane

FINAL AGENDA

ACTION ITEMS

1. General Superintendent's Recommendations
2. Change Order(s)
3. Public Officials and Employee Liability Insurance Policy for Operations (R-171-2015)
4. Approval of Agreement Between the Sewerage & Water Board of New Orleans and the Federal Emergency Management Agency and the Louisiana State Historic Preservation Officer for the Project Worksheet 11317 Repair to Station "D" (R-172-2015)
5. Ratification of Contract for Web Payment Processing Service (R-186-2015)
6. Sewerage and Water Board Millages for the Fiscal Year 2016
 - Roll Back of Sewerage and Water Millages (R-187-2015)
 - Roll Forward of Sewerage and Water Board Millages (R-188-2015)
7. Water and Sewer Revenue Bond, Series 2015
 - Water 2nd Supplemental Resolution (R-185-2015)
 - Sewer 2nd Supplemental Resolution (R-190-2015)
 - Bond Feasibility Reports – Finance and Rates
 - Bond Feasibility Report – Operating and Engineering
8. Authorization to Enter Into An Agreement with Black & Veatch Consultants for Preparation of the Report on Operations for 2015 (R-170-2015)
9. Biometric Screening & Disease Management (R-199-2015)

PRESENTATION ITEMS

10. Financial Results through August 2015
11. Cooperative Endeavor Agreement with City of New Orleans for the Coordination of All Repair, Maintenance, and Construction Projects with City Agencies
12. Cooperative Endeavor Agreement with Greater New Orleans Foundation
13. Cooperative Endeavor Agreement with City of New Orleans for the Permanent Pavement Restoration of Utility Cuts

INFORMATION ITEMS

14. DBE Participation on Contracts
 - Bid Recommendations – DBE Participation
 - Construction Review Committee
 - Staff Contract Review Committee
 - DBE Participation Report
15. Customer Service Results through September 2015
16. EEOC Activity Status Report
17. FEMA Project Worksheet Status
18. Review of Previous Report
19. Any Other Matters

**GENERAL SUPERINTENDENT RECOMMENDATIONS
FOR THE OCTOBER 21, 2015 MEETING**

A. BIDS. A listing of the bids received during the month of September is included in the following report. A brief summary is attached for your review.

- Item 1 - R-174-2015 - FURNISHING AND DELIVERING LUBRICANT
PETROLEUM PRODUCTS - YG150060
- Item 2 - R-175-2015 - REBUILDING AND INSTALLING AUTOMOTIVE
REMANUFACTURED ENGINES AND RELATED
PARTS - REQ. NO. YG150099
- Item 3 - R-176-2015 - FURNISHING SEWER REPAIR COUPLINGS -
REQ. NO. YW150013
- Item 4 - R-177-2015 - FURNISHING FULL CIRCLE STAINLESS STEEL
REPAIR AND TAP CLAMPS AND TRANSITIONAL
COUPLINGS FOR CAST IRON AND TRANSITE
PIPE - REQ. NO. YW150081
- Item 5 - R-178-2015 - FURNISHING HOT MIX ASPHALT -
REQ. NO. YW150085
- Item 6 - R-179-2015 - FURNISHING METER BOXES AND METER BOX
PARTS - REQ. NO. YW150086
- Item 7 - R-180-2015 - FURNISHING AND DELIVERING COMBINATION
SEWER CLEANER TRUCKS - REQ. NO.
YG150026
- Item 8 - R-181-2015 - THE SALE OF JUNK METERS, SCRAP WIRES,
JUNK METALS AND JUNK LOCOMOTIVES
- Item 9 - R-182-2015 - CONTRACT 8144 - REPAVING OPEN CUTS IN
STREETS, DRIVEWAYS, SIDEWALKS
RESULTING FROM THE REPAIR TO THE
SEWERAGE AND WATER BOARD OF NEW
ORLEANS UNDERGROUND UTILITIES

B. CONTRACT RENEWAL

Item 10 - R-183-2015 - FIRST RENEWAL OF CONTRACT FOR
FURNISHING CHEMICAL CONTROL OF
FOLIAGE AT SPECIFIED SEWERAGE AND
WATER BOARD LOCATIONS WITHIN THE CITY
OF NEW ORLEANS - REQ. NO. YO140051

C. CONTRACT FINAL ACCEPTANCE

Item 11 - R-184-2015 - CONTRACT 3661 - MODIFICATION TO EAST
BANK WASTEWATER TREATMENT PLANT FLOOD
PROTECTION SYSTEM

**GENERAL SUPERINTENDENT RECOMMENDATIONS
REPORT OF FINAL ACCEPTANCE TO BE
CONSIDERED BY THE FINANCE COMMITTEE AND
THE BOARD'S MEETING OF OCTOBER 21, 2015**

During September 2015 bids were received and evaluated (as per attached tabulations) and on various items as follows:

**1. FURNISHING AND DELIVERING LUBRICANT PETROLEUM PRODUCTS -
REQ. NO. YG150060**

Three (3) bids were received on September 24, 2015 for furnishing and delivering lubricant petroleum products. It is recommended that the low bid of **Retif Oil & Fuel** in the total amount of **\$102,319.73**, be accepted based upon the technical review of the proposals.

The three (3) bidders are as follows:

1. Retif Oil & Fuel	\$102,319.73
2. Davidson Oil Co.	114,231.50
3. Lard Oil Company	126,451.10

There is no DBE participation.

The estimated amount for this project is \$125,000.00.

Funds for this project are budgeted under Account Code 0840 (Garage II) and Object Code 3230 (Rep & Maintenance Equipment & Machin).

The estimated amount for this project is \$1,610,000.00.

Funds for this project are budgeted under Account Code 0840 (Garage II) and Object Code 3230 (Rep & Maintenance Equipment & Machin).

**2. REBUILDING AND INSTALLING AUTOMOTIVE REMANUFACTURED ENGINES
AND RELATED PARTS - REQ. NO. YG150099**

No bids were received on September 17, 2015 for rebuilding and installing automotive remanufactured engines and related parts. It is recommended that this item be rebid.

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

October 21, 2015

Page 2

3. FURNISHING SEWER REPAIR COUPLINGS - REQ. NO. YW150013

Three (3) bids were received on September 17, 2015 for furnishing sewer repair couplings. It is recommended that awards be made on an item-by-item basis, to the low bidder, as follows:

Items 1 thru 7 and 10 thru 14, to **La. Utilities Supply** in the total amount of **\$47,794.00**, be accepted based upon the technical review of the proposals.

Items 15 and 16, to **Cimsco, Inc.** in the total amount of **\$23,000.00**, be accepted based upon the technical review of the proposals.

Items 8 and 9, to **Coburn's** in the total amount of **\$3,800.00**, be accepted based upon the technical review of the proposals.

The three (3) bidders are as follows:

1. La. Utilities Supply	\$47,794.00
2. Cimsco, Inc.	23,000.00
3. Coburn's	3,800.00

There is no DBE participation.

The estimated amount for this project is \$350,000.00.

Funds for this project are budgeted under Account Code 0850 (Warehouse & Grounds and Object Code 9916 (Miscellaneous)).

4. FURNISHING FULL CIRCLE STAINLESS STEEL REPAIR AND TAP CLAMPS AND TRANSITIONAL COUPLINGS FOR CAST IRON AND TRANSITE PIPE - REQ. NO. YW150081

Two (2) bids were received on September 17, 2015 for furnishing full circle stainless steel repair and tap clamps and transitional couplings for cast iron and transite pipe. It is recommended that the low bid of **La. Utilities Supply** in the total amount of **\$208,199.20**, be accepted based upon the technical review of the proposals.

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

October 21, 2015

Page 3

The two (2) bidders are as follows:

- | | |
|--------------------------------|---------------------|
| 1. La. Utilities Supply | \$208,199.20 |
| 2. Cimsco, Inc. | 242,812.00 |

There is no DBE participation.

The estimated amount for this project is \$500,000.00.

Funds for this project are budgeted under Account Code 0850 (Warehouse & Grounds) and Object Code 9949 (Hydrant, Valves & Parts).

5. FURNISHING HOT MIX ASPHALT - REQ. NO. YW150085

Two (2) bids were received on September 17, 2015 for furnishing hot mix asphalt. The low bidder, Boh Brothers Construction Co., LLC was non-responsive to the specifications because they did not send in the proposal section of the specifications. It is, therefore, recommended that the second formal bid of **Barriere Construction Co., LLC** in the total amount of **\$301,250.00**, be accepted based upon the technical review of the proposals.

The two (2) bidders are as follows:

- | | |
|--|-------------------|
| 1. Boh Brothers Construction, Co., Inc. | \$281,475.00 |
| 2. Barriere Construction Co., LLC | 301,250.00 |

There is no DBE participation.

The estimated amount for this project is \$400,000.00.

Funds for this project are budgeted under Account Code 0850 (Warehouse & Grounds) and Object Code 9916 (Miscellaneous).

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

October 21, 2015

Page 4

6. FURNISHING METER BOXES AND METER BOX PARTS - REQ. NO. YW150086

Three (3) bids were received on September 17, 2015 for furnishing meter boxes and meter box parts. It is recommended that the low bid of **Cimsco, Inc.** in the total amount of **\$683,607.00**, be accepted based upon the technical review of the proposals.

The three (3) bidders are as follows:

1. Cimsco, Inc.	\$683,607.00
2. La. Utilities Supply	685,898.00
3. A.Y. McDonald	761,222.50

There is no DBE participation.

The estimated amount for this project is \$600,000.00.

Funds for this project are budgeted under Account Code 0850 (Warehouse & Grounds) and Object Code 4410 (Supplies & Materials).

7. FURNISHING AND DELIVERING COMBINATION SEWER CLEANER TRUCKS - REQ. NO. YG150026

Two (2) bids were received on September 17, 2015 for furnishing and delivering combination sewer cleaner trucks. It is recommended that awards be made on an item-by-item basis, to the low bidder, as follows:

Item 1, to **Covington Sales & Service** in the total amount of **\$1,002,000.00**, be accepted based upon the technical review of the proposals.

Item 2, to **Vacuum Truck Sales & Service** in the total amount of **\$944,145.00**, be accepted based upon the technical review of the proposals.

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

October 21, 2015

Page 5

The two (2) bidders are as follows:

- | | |
|---------------------------------|----------------|
| 1. Covington Sales & Service | \$1,002,000.00 |
| 2. Vacuum Truck Sales & Service | 944,145.00 |

There is no DBE participation.

The estimated amount for this project is \$2,000,000.00.

Funds for this project are budgeted under Account Code 0840 (Garage II) and Object Code 4450 (Motor Vehicle Repairs & Maintenance).

8. THE SALE OF JUNK METERS, SCRAP WIRES, JUNK METALS AND JUNK LOCOMOTIVES

Three (3) bids were received on July 23, 2015 for the sale of junk meters, scrap wires, junk metals and junk locomotives. The highest bidder, Uptown Recycling (Lot C), has expressed lack of interest in carrying out their contract. It is, therefore, recommended that Lot C be awarded to, the second highest bidder, Louisiana Scrap Metal in the total amount of \$1.11 per pound, based upon the technical review of the proposals:

Lot C, to Louisiana Scrap Metal in the total amount of \$1.11 per pound, be accepted based upon the technical review of the proposals.

There is no DBE participation.

9. CONTRACT 8144 - REPAVING OPEN CUTS IN STREETS, DRIVEWAYS, SIDEWALKS RESULTING FROM THE REPAIR TO THE SEWERAGE AND WATER BOARD OF NEW ORLEANS UNDERGROUND UTILITIES

Four (4) bids were received on September 18, 2015 for performing work under Contract 8144. It is recommended that the low bid of Wallace C. Drennan, LLC in the total amount of \$1,666,300.00, be accepted based upon the technical review of the proposals.

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

October 21, 2015

Page 6

The four (4) bidders are as follows:

1. Wallace C. Drennan, LLC	\$1,666,300.00
2. Fleming Construction	1,747,250.00
3. Roubion Roads & Streets	1,946,700.00
4. Hard Rock Construction	2,643,350.00

The DBE participation is 36%.

The estimated amount for this project is \$2,000,000.00.

Funds for this project are budgeted under Account Code 08144.

10.

FIRST RENEWAL OF CONTRACT FOR
FURNISHING CHEMICAL CONTROL OF FOLIAGE
AT SPECIFIED SEWERAGE AND WATER BOARD
LOCATIONS WITHIN THE CITY OF NEW ORLEANS
REQ. NO.YO140051

PROPOSAL:

The contractor, Louisiana Vegetation Management, Inc., has requested that the Board renew their current contract effective October 1, 2015, as allowed under this contract with no increase in cost and with no change in terms and conditions of their original contract, with the total being \$156,450.00.

EVALUATION:

The original contract for Furnishing Chemical Control of Foliage At Specified Sewerage and Water Board Locations Within The City of New Orleans was awarded to Louisiana Vegetation Management, Inc., by the Board at its meeting of October 15, 2014 in the total amount of \$156,450.00. If approved, this would be the first and final renewal as

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

October 21, 2015

Page 7

allowed under the terms of the contract. The DBE participation IS 20%. Funds for this project are budgeted under Account Code 0815 (Grounds Maintenance) and Object Code 3271 (Grounds Maintenance Repair).

RECOMMENDATION:

It is recommended that the Board approve this first renewal to **Louisiana Vegetation Management, Inc.** in the total amount of **\$156,450.00**.

11.

REPORT OF FINAL ACCEPTANCE

PROPOSAL:

Contract 3661 be considered for acceptance.

EVALUATION:

Contract 3661 - **Cajun Contractors** - Modification to East Bank Wastewater Treatment Plant Flood Protection System. Total Contract Bid \$24,391,466.00. Total Contract Expenditure \$29,426,437.15. Date Work Order Issued March 27, 2012. Date Work Accepted May 11, 2015. The DBE Participation Goal is 36%. The DBE participation achieved is 40%.

RECOMMENDATION:

The above contract is recommended for acceptance.

FURNISHING AND DELIVERING LUBRICANT PETROLEUM PRODUCTS - REQ.
NO. YG150060

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that three (3) bids were received on September 24, 2015 after advertising according to the Public Bid Law, for Furnishing and Delivering Lubricant Petroleum Products. The low bid was hereby accepted and contract awarded therefore to **Retif Oil & Fuel** for the total amount of \$102,319.73.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**REBUILDING AND INSTALLING AUTOMOTIVE REMANUFACTURED ENGINES AND
RELATED PARTS - REQ. NO. YG150099**

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that no bids were received on September 17, 2015 after advertising according to the Public Bid Law, for Rebuilding and Installing Automotive Remanufactured Engines and Related Parts. It is recommended that this contract be rebid.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

FURNISHING SEWER REPAIR COUPLINGS - REQ. NO. YG150013

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that three (3) bids were received on September 17, 2015 after advertising according to the Public Bid Law, for furnishing sewer repair couplings. The low bid was hereby accepted and contract awarded on an item-by-item basis as follows:

Items 1 thru 7 and 10 thru 14, to **La. Utilities Supply** for the total amount of **\$47,794.00**, be accepted based upon the technical review of the proposals.

Items 15 and 16, to **Cimsco, Inc.** for the total amount of **\$23,000.00**, be accepted based upon the technical review of the proposals.

Items 8 and 9, to **Coburn's** for the total amount of **\$3,800.00**, be accepted based upon the technical review of the proposals.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**FURNISHING FULL CIRCLE STAINLESS STEEL REPAIR AND TAP CLAMPS AND
TRANSITIONAL COUPLINGS FOR CAST IRON AND TRANSITE PIPE - REQ.
NO. YG150081**

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that two (2) bids were received on September 17, 2015 after advertising according to the Public Bid Law, for furnishing full circle stainless steel repair and tap clamps and transitional couplings for cast iron and transite pipe. The low bid was hereby accepted and contract awarded therefore to **La. Utilities Supply** for the amount of **\$208,199.20**.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

FURNISHING HOT MIX ASPHALT - REQ. NO. YG150085

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that two (2) bids were received on September 17, 2015 after advertising according to the Public Bid Law, for furnishing hot mix asphalt. The low bid was hereby accepted and contract awarded therefore to **Barriere Construction Co., LLC** for the amount of **\$301,250.00**.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

FURNISHING METER BOXES AND METER BOX PARTS - REQ. NO. YW150086

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that three (3) bids were received on September 17, 2015 after advertising according to the Public Bid Law, for meter boxes and meter box parts. The low bid was hereby accepted and contract awarded therefore to **Cimsco, Inc.** for the amount of **\$683,607.00.**

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

FURNISHING AND DELIVERING COMBINATION SEWER CLEANER TRUCKS -
REQ. NO. YG150026

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that two (2) bids were received on September 17, 2015 after advertising according to the Public Bid Law, for furnishing and delivering combination sewer cleaner trucks. The low bid was hereby accepted and contract awarded on an item-by-item basis as follows:

Item 1, to Covington Sales & Service for the total amount of \$1,002,000.00, be accepted based upon the technical review of the proposals.

Item 2, to Vacuum Truck Sales & Service for the total amount of \$944,145.00, be accepted based upon the technical review of the proposals.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**THE SALE OF JUNK METERS, SCRAP WIRES, JUNK METALS AND JUNK
LOCOMOTIVES**

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that three (3) bids were received on July 23, 2015 after advertising according to the Public Bid Law, for the sale of junk meters, scrap wires, junk metals and junk locomotives. Due to the highest bidder expressing lack of interest in carrying out their contract, the second highest bid was hereby accepted and contract awarded therefore to **Louisiana Scrap Metal** for the amount of **\$1.11 per pound**.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**CONTRACT 8144 - REPAVING OPEN CUTS IN STREETS, DRIVEWAYS,
SIDEWALKS RESULTING FROM THE REPAIR TO THE SEWERAGE AND WATER
BOARD OF NEW ORLEANS UNDERGROUND UTILITIES**

BE IT RESOLVED by the Sewerage and Water Board of New Orleans that four (4) bids were received on September 18, 2015 after advertising according to the Public Bid Law, for performing work under Contract 8144. The bid was hereby accepted and contract awarded therefore to **Wallace C. Drennan, LLC** for the total amount of **\$1,666,300.00**.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**FIRST AND FINAL RENEWAL OF CONTRACT FOR FURNISHING CHEMICAL
CONTROL OF FOLIAGE AT SPECIFIED SEWERAGE AND WATER BOARD
LOCATIONS WITHIN THE CITY OF NEW ORLEANS - REQ. NO. YO140051**

WHEREAS, under the provisions of the contract, the Board, with the contractor's concurrence, reserves the right to renew the contract with no increase in the cost of services and no change in terms and conditions; and

WHEREAS, the contractor, **Louisiana Vegetation Management, Inc.**, desires to exercise its renewal option as allowed under this contract with the total being **\$156,450.00** for furnishing chemical control of foliage at specified Sewerage and Water Board locations within the city of New Orleans.

NOW, THEREFORE, BE IT RESOLVED, that the request of **Louisiana Vegetation Management, Inc.**, for this first and only renewal, effective October 1, 2015, is hereby approved.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**FINAL ACCEPTANCE AND CLOSE OUT TO CONTRACT 3661 - MODIFICATION
TO EAST BANK WASTEWATER TREATMENT PLANT FLOOD PROTECTION SYSTEM**

WHEREAS, Contract 3661 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans; and

WHEREAS, the General Superintendent in his report has recommended that this contract receive final acceptance and be closed out.

NOW, THEREFORE, BE IT RESOLVED, by the Sewerage and Water Board of New Orleans that the recommendation of the General Superintendent to authorize final acceptance and to close out Contract by **Cajun Contractors** for **Contract 3661**, is hereby approved.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Meeting of the said Board, duly called and held, according to law, on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**RATIFICATION OF CHANGE ORDER NO. 1 FOR CONTRACT 1378 -
HURRICANE KATRINA RELATED REPAIRS TO BOILER, DUCT AND
ELEVATORS AT THE MAIN WATER PURIFICATION PLANT POWER
COMPLEX**

WHEREAS, the Sewerage and Water Board entered into Contract 1378 with Plant N Power Services, LLC in the amount of \$15,928,241.00 for FEMA-funded repairs to Board water distribution system service pumps, and

WHEREAS, the Contractor completed additional work including changes to boiler instruments, the boil-out of Boiler #4 and modifications to the Turbine G5 stairway landing at the railroad tracks. These costs will not be eligible for FEMA reimbursement, and

WHEREAS, the Contractor will be granted forty six (46) additional Contract days to complete the work and

WHEREAS, this Change Order, in the amount of \$201,903.35, brings the accumulated Contract change order total to \$201,903.35, or 1.3 % percent of the original Contract value.

NOW THEREFORE BE IT RESOLVED, the approval of Change Order No. 1 for Contract 1378 is ratified by the Sewerage and Water Board of New Orleans.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true
and correct copy of a Resolution adopted at the Regular
Monthly Meeting of said Board, duly called and held,
according to law, on October 21, 2015.

CEDRIC S. GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

RATIFICATION OF CHANGE ORDER NO. 2 FOR CONTRACT 3788 – 404 HAZARD MITIGATION GRANT PROGRAM – BURKE SEWAGE PUMPING STATION

WHEREAS, the Sewerage and Water Board entered into Contract 3788 with Industrial & Mechanical Contractors Inc., for FEMA funded Hazard Mitigation Grant Program to Burke Sewage Pumping Station in the bid amount of \$1,388,183.00, and

WHEREAS, in the course of this construction, it was required to replace the cathodic leads without splices to the SFM, install expansion joints to both suction lines, replace the CMU wall with wood fence and add two gates to provide boom truck access, at an additional cost of \$24,081.88. This cost will be eligible for FEMA reimbursement, and

WHEREAS, the contractor was directed to clean and CCTV the 30" sewer line & remove excess debris from the wet well, install the lightning protection system including the installation of the TVSS system, at an additional cost of \$54,186.83. This cost will be eligible for FEMA reimbursement, and

WHEREAS, the Sewerage and Water Board has previously approved Change Orders for this Contract in the amount of \$25,879.29. This Change Order, in the amount of \$78,268.71, brings the accumulated total to \$104,148.00, which is 7.5% of the original Contract value.

NOW THEREFORE BE IT RESOLVED, the approval of Change Order No. 2 for Contract 3788 be ratified by the Sewerage and Water Board

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true
and correct copy of a Resolution adopted at the Regular
Monthly Meeting of said Board, duly called and held,
According to law, on October 21, 2015

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**RATIFICATION OF CHANGE ORDER NO. 10 FOR CONTRACT 1351 -
HURRICANE KATRINA RELATED REPAIRS TO A & B PUMPS AND
AUXILIARIES AT THE MAIN WATER PURIFICATION PLANT POWER
COMPLEX**

WHEREAS, the Sewerage and Water Board entered into Contract 1351 with Lou-Con, Inc. in the amount of \$13,594,000.00 for FEMA-funded repairs to Board water distribution system service pumps, and

WHEREAS, the Contractor completed \$56,808.31 of additional repairs to Gear Box B. These costs will not be eligible for FEMA reimbursement because the damages were not related to hurricane damages, and

WHEREAS, the Contractor completed additional storm related repairs to Gear Box III, Pump A & Pump B Rehab/Redesign, and,

WHEREAS, the Contractor will be granted three hundred thirty eight (338) additional Contract days to complete the work and

WHEREAS, this Change Order, in the amount of \$1,784,726.81, brings the accumulated Contract change order total to \$2,022,392.82, or 14.9 % percent of the original Contract value.

NOW THEREFORE BE IT RESOLVED, the approval of Change Order No. 10 for Contract 1351 is ratified by the Sewerage and Water Board of New Orleans.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true
and correct copy of a Resolution adopted at the Regular
Monthly Meeting of said Board, duly called and held,
according to law, on October 21, 2015.

CEDRIC S. GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**RATIFICATION OF CHANGE ORDER NO. 8 FOR CONTRACT 1352 -
HURRICANE RELATED REPLACEMENT OF THE PUMP PACKAGE AT THE
CARROLLTON WATER PURIFICATION PLANT – POWER COMPLEX**

WHEREAS, the Sewerage and Water Board entered into Contract 1352 with Industrial & Mechanical Contractors, Inc. in the amount of \$2,721,890.00 for the FEMA funded Replacement of the Pump Package at the Carrollton Water Purification Plan – Power Complex and

WHEREAS, the Contractor shall core additional holes due to beam obstruction, furnish and install additional piping due to a location change of pumps, provide additional labor due to recurring underground obstructions to the feeder runs and furnish and install air compressors and,

WHEREAS, this Change Order, in the amount of \$273,936.45, brings the accumulated Contract change order total to \$546,620.48 or 20.1% of the original Contract value.

NOW THEREFORE BE IT RESOLVED, the approval of Change Order No. 8 for Contract 1352 is ratified by the Sewerage and Water Board of New Orleans.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true
and correct copy of a Resolution adopted at the Regular
Monthly Meeting of said Board, duly called and held,
according to law, on October 21, 2015.

CEDRIC S. GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: September 17, 2015

To: Cedric S. Grant, Executive Director
Robert Miller, Executive Deputy Director ✓

From: Steven Klepeis, Risk Manager *SK*

Re: Renewal of Public Officials and Employees Liability Insurance
Recommendation to Finance Committee

Policy name: Public Officials and Employees Liability Insurance

Policy period: 11/20/2015 to 11/20/2016

Who is an insured: Public officials and employees of the Sewerage and Water Board of New Orleans, along with persons elected or appointed, commissions, boards or other units and their members and employees, and volunteers, all of whom act for or on behalf of the Sewerage and Water Board of New Orleans.

Main Coverages: Wrongful Acts; Defense Costs.

Main Coverage Limit: \$10,000,000.00

Main coverage Deductible: \$250,000.00

Typical claims to which coverage may apply: Wrongful dismissal; breach of employment contract; harassment; discrimination; retaliation; employment-related misrepresentations; wrongful failure to employ or promote; wrongful deprivation of career opportunity; wrongful demotion; negligent evaluation; issuing derogatory statements; wrongful discipline; failure to grant tenure; failure to provide or enforce adequate or consistent policies or procedures relating to employment; violation of civil rights.

Additional Coverage: Crisis management, \$50,000 limit; Privacy Protection against cyber breach, \$1,000,000.00 limit; Crisis Fund Insurance, \$50,000 limit; Regulatory Proceedings Insurance, \$250,000.

Renewal Premium: \$79,522.43 **Prior Year Premium:** \$78,723.75 **Increase:** 1%

Recommended Carrier: ACE, USA. **Reason:** More coverage, less cost

Public Officials and Employee Insurance Marketing Overview

Most Competitive Options/Carriers 2015

CARRIER	Option 1 Ace Incumbent Carrier	Option 2- Ironshore Specialty Insurance Company
Premium	\$79,522.43	\$88,416.32
Rating	Non-Admitted Market- AXV	Non- Admitted Market- AXIV
Added Coverage	Crisis Management- \$50,000 Coverage, EPL Assist, ACE Municipal Advantage	Crisis Management- \$25,000 Coverage
Privacy Security Protection	Included- Privacy Protection Sublimit- 1,000,000; Regulatory Proceedings- 250K Identity theft- 10K	Excluded- would have to be added via stand alone policy. Indications per carrier are \$10,000 in additional premium.
Deductible	\$0 Deductible/ SIR in the event Board is bankrupted of fund and is held liable. Any other event/claim= 250,000	250,000 Deductible Any Loss
Defense Limits	Defense coverage outside the limits 10M Cap	Defense coverage inside-2.5M Additional Outside
Full Prior Acts	Included	Included
EEOC Coverage	Included	Included
Terrorism	Included	Included
Choice of Counsel	Included	Not Included
Defense Post Settle Amendment	Soft Hammer 70/30- Carrier/Insured	Soft Hammer 75/25- Carrier/Insured

Full Market Summary

Upon working with the Marketing department, full submissions went to the open market in early August for the public officials liability renewal expiring 11/22/2015. After working with our contacts at ACE as well as our wholesale broker, AmWIns, the best two options were with the incumbent and Ironshore Specialty via broker. Above is the comparison of each. ACE still stands to be the most competitive with regards to pricing and coverage. Coming in at a nearly flat renewal, they offer the best terms. The difference from last year was attributed to a small rate increase within this line of business for this industry as well as a difference in revenues from last year to this year that were applied (225K). Below is the responses/outcomes of all the other markets approached. Public Officials liability is a line of business where only a limited number of carriers compete therefore Eagan is confident in the proposal options provided.

Other Markets Approached

Carrier	Response
Hiscox	Not competitive, can only do \$5M in coverage
XL	Declined, could not compete with current terms
Euclid/Scottsdale	Declined, cannot write in Louisiana
Starr	Declined, could not compete with current terms
Ironshore	Quote provided
AIG (prior carrier)	Not competitive terms would be the same as last year
PGU/Darwin	Not competitive, can only do \$5M in coverage

**PUBLIC OFFICIALS AND EMPLOYEE LIABILITY
INSURANCE POLICY FOR OPERATIONS**

WHEREAS, The Sewerage and Water Board of New Orleans desires to renew its Public Officials and Employees Liability policy for its operations for the period November 20, 2015 through November 20, 2016.; and

WHEREAS, the Board has maintained Public Officials and Employees Liability since 1987; and

WHEREAS, the Board requested its insurance broker, Eagan Insurance, Inc., to secure price quotations for renewal of Public Officials and Employees Liability Insurance; and

WHEREAS, Eagan Insurance, Inc. obtained from the incumbent ACE, USA a renewal quote of \$79,522.43 for Public Officials and Employees Liability Insurance with a \$10 Million limit in basic coverage, and which includes several additional related areas of coverage, including a \$1 Million sub-limit on cyber-related Privacy Protection and Network Liability coverage; and

WHEREAS, said recommended premium quotation from ACE, USA represents merely a \$798.58 increase, or 1%, increase in premium from the expiring policy; and

WHEREAS the quotation from ACE, USA offers substantially more coverage at a cost which is substantially less than the closest competing quotation;

NOW THEREFORE, BE IT RESOLVED that the Executive Director of the Sewerage and Water Board of New Orleans, is hereby authorized and directed to purchase Public Officials and Employees Liability insurance coverage for its operations with ACE, USA through the Board's insurance broker, Eagan Insurance, Inc. for a total of \$79,522.43.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do
hereby certify that the above and foregoing is
a true and correct copy of a Resolution adopted
at the Regular Meeting of the said Board, duly called
and held, according to law, on October 21, 2014.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: 9-21-15

To: Cedric S. Grant, Executive Director

From: Jason Higginbotham, Director of Emergency Management

Re: Station D MOA Executive Summary

The SWBNO will be required to;

- 1: S&WB will provide a copy of this MOA to the selected Architect/Engineer ("A/E") for the design of the Mechanical/Structural Repairs so that the A/E will be aware of the design review included in this MOA and FEMA's Section 106 responsibility to take steps to minimize or avoid any adverse effects to Station
- 2: In order to minimize any potential effects to Station D, S&WB will request that the A/E's design apply the guidance set out in the Secretary of Interior's Standards for Rehabilitation, <http://www.nps.gov/tps/standards/rehabilitation.htm>, ("Standards), and appropriate Preservation Briefs, specifically Briefs #1, Cleaning and Water-Repellent Treatments for Historic Masonry Buildings, #2, Repointing Mortar Joints in Historic Masonry Buildings, and #16, The Use of Substitute Materials on Historic Building Exteriors.
- 3: SWBNO will provided FEMA with Design Development Reports, 90% design DWG , and 100% DWG prior to sending the contact out for BID. FEMA will review the Reports and DWG within 15 days and respond back to SWBNO.

APPROVAL OF AGREEMENT BETWEEN THE SEWERAGE AND WATER BOARD OF
NEW ORLEANS AND THE FEDERAL EMERGENCY MANAGEMENT AGENCY AND
THE LOUISIANA STATE HISTORIC PRESERVATION OFFICER.FOR FOR PROJECT
WORKSHEET 11317 Repair to Station D

WHEREAS, the S&WB desires to utilize Federal funds under Project Worksheet
11317v3 for to repair Station D wall that was damaged by Hurricane Katrina;

WHEREAS, The Sewerage & Water Board of New Orleans (SWBNO) has
working with Federal Emergency Management Agency (FEMA), the State Historic
Preservation Officer (SHPO), and the public to minimize adverse effects the repairs to
Station D wall as required by the Advisory Council on Historic Preservation (ACHP) and
the section 106 process.

NOW THEREFORE, BE IT RESOLVED that the Sewerage and Water Board of
New Orleans hereby authorizes acceptance the Memorandum of Agreement with THE
FEDERAL EMERGENCY MANAGEMENT AGENCY AND THE LOUISIANA STATE
HISTORIC PRESERVATION OFFICER;

BE IT FURTHER RESOLVED that the President and/or President Pro-Tem is
hereby authorized to enters into the MOA between the SEWERAGE AND WATER
BOARD OF NEW ORLEANS AND THE FEDERAL EMERGENCY MANAGEMENT
AGENCY AND THE LOUISIANA STATE HISTORIC PRESERVATION OFFICER.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a Resolution adopted at the Regular
Monthly Meeting of said Board, duly called and held,
according to law, on October 21, 2015

CEDRIC S.GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**MEMORANDUM OF AGREEMENT
AMONG THE FEDERAL EMERGENCY MANAGEMENT AGENCY
THE LOUISIANA STATE HISTORIC PRESERVATION OFFICER
AND THE SEWAGE AND WATER BOARD OF NEW ORLEANS
REGARDING STATION D STRUCTURAL REPAIRS
2801 FLORIDA AVE., NEW ORLEANS, ORLEANS PARISH, LA
NEW ORLEANS, ORLEANS PARISH, LA (PW #11317v.3)**

WHEREAS, the Federal Emergency Management Agency (FEMA) of the Department of Homeland Security, pursuant to Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. §5121-5206) and implementing regulations in Title 44 of the Code of Federal Regulations (44 CFR Part 206), proposes to fund Station D Mechanical/Structural Repairs as requested by the Sewerage and Water Board of New Orleans (S&WB) through the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) in response to damages caused by Hurricane Katrina (DR-1603-LA) in New Orleans, LA (Undertaking); and

WHEREAS, the original scope of work associated with the Undertaking did not precisely describe the exterior repair work, stating only that the exterior bricks will be repaired. FEMA reviewed this original scope of work in 2006 and determined that it met the programmatic allowances of the, then-applicable, 2004 PA, adding conditions to require that the work meet the Secretary of the Interior's Standards and applicable NPS Preservation Briefs, and that an SOI-Qualified historical architect review the work; and

WHEREAS, PW #11317v.3, the current scope of work, includes work that was previously reviewed by FEMA under Section 106 and expands upon the original scope of work for the exterior repair work. The revised scope in Version 3 calls for the removal of the outer wythe of bricks, the reinforcement of the walls, and the reinstallation of salvaged bricks. FEMA initiated consultation with letters dated February 6, 2015, to SHPO, Alabama Coushatta Tribe of Texas, Choctaw Nation of Oklahoma, Chitimacha Tribe of Louisiana, Coushatta Tribe of Louisiana, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, Muscogee (Creek) Nation, Poarch Band of Creek Indians, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and Tunica Biloxi Tribe of Louisiana (collectively referenced as "Tribes") regarding the Undertaking described in PW #11317v.3 in accordance with Section 106 of National Historic Preservation Act, 54 U.S.C. § 300101 et seq., (NHPA), its implementing regulations, 36 CFR Part 800, and the *Programmatic Agreement among FEMA, the Louisiana State Historic Preservation Officer, the Louisiana Governor's Office of Homeland Security and Emergency Preparedness, the Alabama-Coushatta Tribe of Texas, the Caddo Nation, the Chitimacha Tribe of Louisiana, the Choctaw Nation of Oklahoma, the Coushatta Tribe of Louisiana, the Jena Band of Choctaw Indians, the Mississippi Band of Choctaw Indians, the Quapaw Tribe of Oklahoma, the Seminole Nation of Oklahoma, the Seminole Tribe of Florida, the Tunica-Biloxi Tribe of Louisiana, and the Advisory Council on Historic Preservation* that was executed August 17, 2009, and amended on July 22, 2011 (2009 Statewide PA as amended); and

WHEREAS, The Muscogee (Creek) Nation notified FEMA on February 17, 2015, that it is not immediately aware of any Muscogee sites that will be affected by the proposed undertaking. The

tribe advised FEMA that New Orleans Parish was a significant location for one of the branches of the Muscogee forced removal to Oklahoma, and requested that FEMA contact the tribe immediately if work uncovers archaeological materials dating to the first half of the 19th century. The Choctaw Nation of Oklahoma informed FEMA on March 12, 2015, that it is unaware of any cultural or sacred sites located in the immediate project area and due to the historic nature of the sites involved deferred to SHPO. Jena Band of Choctaw Indians concurred with the determination of Adverse Effect to Historic Properties on February 27, 2015, and requested that FEMA contact the tribe should any inadvertent discoveries occur. No other Tribes have expressed an interest in the Undertaking and therefore FEMA has fulfilled its NHPA Section 106 responsibilities to consult with Tribes. In the future, FEMA will not consult with or provide reports, materials, etc. to the notified Tribes regarding this Undertaking unless properties that may have traditional religious and cultural importance to Tribes are identified through the inadvertent discoveries and unexpected effects provisions set out in Stipulation V of this MOA; and

WHEREAS, FEMA, in consultation with SHPO, determined that the Standing Structures Area of Potential Effects (APE) is limited to the footprint of the building itself, and the Archaeological APE includes the area of direct disturbance and an area for staging and is 2.55 acres in size; and

WHEREAS, FEMA, in consultation with SHPO, determined that the potential for intact archaeological deposits within the APE is extremely low and SHPO agreed with FEMA in a letter dated February 18, 2015, that no further archaeological identifications efforts are necessary and any archaeological resources that are identified during construction will be addressed through the discovery stipulation of this MOA; and

WHEREAS, in accordance with Stipulation IX.A of the *2009 Statewide PA as amended* and 36 CFR §800.6(a)(1), FEMA notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination in a letter dated March 3, 2015. ACHP responded that it will not participate in the consultation to develop an MOA to avoid, minimize, and mitigate the adverse effects of this Undertaking in a letter to FEMA dated April 9, 2015; and

WHEREAS, FEMA and SHPO are the Signatories to the MOA as defined in 36 CFR §800.6(c)(1); and

WHEREAS, FEMA consulted with S&WB, the Subgrantee, and in recognition that it may assume responsibilities to perform various actions described by this MOA, FEMA has invited S&WB to participate in this consultation and execute this MOA as an Invited Signatory as defined in 36 CFR §800.6(c)(2); and

WHEREAS, FEMA provided information to the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP); Preservation Resource Center of New Orleans (PRC); Louisiana Landmarks Society; Foundation for Historical Louisiana; Faubourg St. Roch Neighborhood Association; and Bunny Friend Neighborhood Association about the Undertaking and notified these organizations regarding the opportunity to participate in this consultation; and

WHEREAS, GOHSEP and PRC have requested Consulting Party status, participated in the consultation, and are invited by FEMA to participate in this consultation and sign this MOA as a Concurring Party as defined in 36 CFR §800.6(c)(3); and

WHEREAS, FEMA determined to utilize the NHPA Section 106 review process as an additional opportunity for FEMA to accept and consider public comments on National Environmental Policy Act (NEPA) related issues and supplement the public outreach efforts required by Executive Order 11988 and NEPA; and

WHEREAS, FEMA provided information to the public regarding the Undertaking on the Louisiana Department of Culture, Recreation and Tourism (CRT) website, the PRC blog, and the PRC website, and invited the public to post electronic comments to the CRT website; send comments to FEMA-NOMA@dhs.gov; or mail comments to FEMA; and

WHEREAS, no comments were posted on the CRT website, sent to FEMA's e-mail, or mailed to FEMA;

NOW THEREFORE, FEMA, SHPO, and S&WB agree that the Undertaking will be implemented in accordance with the following Stipulations to take into account the effects of the Undertaking on historic properties and to satisfy FEMA's Section 106 responsibilities for the Undertaking.

STIPULATIONS

To the extent of its legal authority and in coordination with SHPO, S&WB, PRC, and GOHSEP, FEMA will require that the following measures are implemented:

I. GENERAL

A. Responsibilities and Roles of Signatories, Invited Signatory, and Concurring Parties

1. A Consulting Party will be recognized by FEMA as a Signatory, Invited Signatory, or a Concurring Party starting on the date the Consulting Party signs this MOA as a Signatory, Invited Signatory, or Concurring Party and provides FEMA with a record of this signature.
2. FEMA will provide all Signatories, Invited Signatories, and Concurring Parties with the opportunity to review and comment on various documents and reports under the terms of this MOA. Determinations or reviews that have been completed by FEMA under the terms of this MOA prior to the signature of a Concurring Party will not be reconsidered because the Concurring Party did not have the opportunity to review and comment.
3. The failure of any Signatory, Invited Signatory, or Concurring Party to comment during the time frames set out in this MOA will be treated by FEMA as concurrence,

and FEMA may proceed to the next step without taking additional steps to seek comments from that party.

4. It is the responsibility of each Signatory, Invited Signatory, or Concurring Party to immediately inform FEMA of any changes in the name, address, e-mail address or phone number of the point-of-contact. FEMA will forward this information to the Signatories, Invited Signatory, and Concurring Parties by e-mail. The failure by any party to this MOA to notify FEMA of changes to their point-of-contact's information will not be grounds for asserting that notice of a proposed action was not received. All notices required pursuant to this MOA may be delivered electronically to:

- i. If FEMA: Gail Lazaras at Gail.Lazaras@fema.dhs.gov and Jerame Cramer at Jerame.Cramer@fema.dhs.gov;
- ii. If S&WB: Jason Higginbotham, 625 St. Joseph Street Room 117, New Orleans, LA 70165, 504-585-2015, jhigginbotham@swbno.org
- iii. If SHPO: Nicole Hobson-Morris at nhmorris@crt.state.la.us at Office of Historic Preservation/Capitol Annex Building, 1051 North Third Street, Baton Rouge, LA 70802;
- iv. If GOHSEP: Ellen Ibert at ellen.ibert@la.gov or at GOHSEP, 1500 Main Street, Cub 1015-86, Baton Rouge, LA 70802; (225) 334-7748 - LRO Baton Rouge Desk, (337) 208-7602 - Cellular
- v. If PRC: Michelle Kimball at mkimball@prcno.org or at 923 Tchoupitoulas Street, New Orleans, LA 70130;

B. Delivery Methods for Communications included in MOA

1. The Signatories, Invited Signatory, and Concurring Parties may send and accept official notices, comments, requests for further information and documentation, and other communications required by this MOA by e-mail.
2. If the size of an e-mail message is unusually large or an e-mail is returned to a sender because its size prevents delivery, the sender will contact the recipient(s) and determine alternative methods to deliver the information.
3. Time sensitive information that is not sent by e-mail should be sent by overnight mail, courier, or be hand-delivered and the time frame for its review will be measured by the date the delivery is signed for by the individual recipient or the agency or organization representing the Signatory, Invited Signatory, or Concurring Party.

C. Time Frames

1. All references to time periods in this MOA are in calendar days. If a review period included in this MOA ends on a Saturday, Sunday, or State or Federal holiday, the review period will be extended until the next business day. Any electronic communication forwarding plans or other documents for review under the terms of

this MOA that is sent after 4:00 pm Central Time will be deemed to have been received by the reviewing party on the next business day.

2. E-mail comments by the Signatories, Invited Signatory, or Concurring Parties on any plans or documents submitted for review under this MOA are timely if they are received at any time on or before the last day of a review period. Responses sent by mail will be accepted as timely if they are postmarked by the last day allowed for the review.

D. FEMA Qualified Staff

1. FEMA shall use Federal, State, or contractor staff whose qualifications meet the Secretary of the Interior's (SOI) *Professional Qualifications Standards (Professional Qualifications)* for Architecture, Historic Architecture, or Architectural History as defined in 36 CFR Part 61, Appendix A, (Qualified Staff), as determined by FEMA's Federal Preservation Officer, to review plans and any proposed changes to the Scope of Work.

II. DESIGN REVIEW

- A. S&WB will provide a copy of this MOA to the selected Architect/Engineer ("A/E") for the design of the Mechanical/Structural Repairs so that the A/E will be aware of the design review included in this MOA and FEMA's Section 106 responsibility to take steps to minimize or avoid any adverse effects to Station D.

- B. In order to minimize any potential effects to Station D, S&WB will request that the A/E's design apply the guidance set out in the Secretary of Interior's *Standards for Rehabilitation*, <http://www.nps.gov/tps/standards/rehabilitation.htm>, ("Standards"), and appropriate Preservation Briefs, specifically Briefs #1, **Cleaning and Water-Repellent Treatments for Historic Masonry Buildings**, #2, **Repointing Mortar Joints in Historic Masonry Buildings**, and #16, **The Use of Substitute Materials on Historic Building Exteriors**.

C. Design Development Report

1. S&WB will provide electronic copies of the Design Development Report prepared by the A/E to FEMA and GOSHEP.
2. FEMA will forward the electronic copies of the Design Development Report to SHPO and the Concurring Parties for a fifteen (15) day review and comment period. SHPO and the Concurring Parties will review the Design Development Report to determine if it is responsive to the *Standards* and Preservation Briefs.
3. FEMA will review any comments submitted by SHPO and/or Concurring Parties within the fifteen (15) day review period and notify GOSHEP and S&WB within

seven (7) days following the review period if the proposed design conforms to the guidance in the Standards and Preservation Briefs.

4. If FEMA determines that the Design Development Report does not conform to the guidance in the Standards and Preservation Briefs, FEMA will notify SHPO, S&WB, and the Concurring Parties by e-mail and clearly describe the issues that must be addressed to avoid or minimize adverse effects. FEMA's notice will include any comments submitted by FEMA, SHPO, and/or Concurring Parties regarding adverse effects and any recommendations regarding alternatives that may avoid or minimize the additional adverse effects. S&WB will provide these comments to its A/E and request that the A/E modify the design in response to the comments or provide a written explanation describing why the modifications are not feasible. The written explanation will be included with the 90% Construction Documents submitted for review as described in Stipulation II.D.

D. 90% Construction Documents

1. S&WB will provide electronic copies of the 90% Construction Documents developed by the A/E to FEMA and GOSHEP.
2. FEMA will forward the electronic copies of the 90% Construction Documents to SHPO and the Concurring Parties for a fifteen (15) day review and comment period. SHPO and the Concurring Parties will review the 90% Construction Documents to determine if they are responsive to the *Standards* and Preservation Briefs.
3. FEMA will review any comments submitted by SHPO and/or Concurring Parties within the fifteen (15) day review period and notify GOSHEP and S&WB within seven (7) days following the review period if the proposed design conforms to the guidance in the Standards and Preservation Briefs.
4. If FEMA determines that the 90% Construction Documents do not conform to the guidance in the Standards and Preservation Briefs, FEMA will notify SHPO, S&WB, and the Concurring Parties by e-mail and clearly describe the issues that must be addressed to avoid the additional adverse effects. FEMA's notice will include any comments submitted by FEMA, SHPO, and/or Concurring Parties regarding the additional adverse effects and any recommendations regarding alternatives that may avoid or minimize the additional adverse effects. S&WB will provide these comments to its A/E and request that the A/E modify the design in response to the comments or provide a written explanation describing why the modification is not feasible. The written explanation will be included with the 100% Construction Documents submitted for review as described in Stipulation II.E.
5. If no comments are submitted by FEMA to GOSHEP and S&WB within twenty-five (25) days of FEMA's receipt of the 90% Construction Documents, the design review required by this MOA will be complete, unless within the twenty-five (25) day review

period FEMA requests that S&WB submit the 100% Construction Documents for review as described in Stipulation II.E.

E. 100% Construction Documents

1. If there are comments requesting revisions to the 90% Construction Documents or if FEMA requests, S&WB will provide electronic copies of the 100% Construction Documents developed by the A/E to FEMA and GOSHEP.
2. FEMA will forward the electronic copies of the 100% Construction Documents to SHPO and the Concurring Parties for a fifteen (15) day review and comment period. SHPO and the Concurring Parties will review the 100% Construction Documents to determine if they incorporate comments on the 90% Construction Documents and are responsive to the *Standards* and Preservation Briefs.
3. FEMA will review any comments submitted by SHPO and/or Concurring Parties within the fifteen (15) day review period and notify GOHSEP and S&WB within seven (7) days following the review period if the proposed design conforms to the guidance in the Standards and Preservation Briefs.
4. If FEMA determines that the 100% Construction Documents do not conform to the guidance in the Standards and Preservation Briefs, FEMA will notify SHPO, S&WB, and the Concurring Parties by e-mail and clearly describe the issues that must be addressed to avoid the additional adverse effects. FEMA's notice will include any comments submitted by FEMA, SHPO, and/or Concurring Parties regarding the additional adverse effects and any recommendations regarding alternatives that may avoid or minimize the additional adverse effects. FEMA, SHPO, S&WB, and the Concurring Parties will consult to identify feasible measures to avoid, minimize, or mitigate the additional adverse effects.
5. If no comments are submitted by FEMA to GOHSEP and S&WB within twenty-five (25) days of FEMA's receipt of the 100% Construction Documents, the design review required by this MOA will be complete.

III. CHANGES TO THE SCOPE OF WORK

- A. S&WB will notify GOHSEP and FEMA as soon as practicable of any substantial change to the Undertaking that may occur following the completion of the design review in Stipulation II, such as, but not limited to, a decision to reconstruct the façade with brick that does not duplicate the dimensions of the original brick; a decision to paint or coat the exterior brick with a finish that was not previously reviewed under this MOA; a decision to change the composition of the mortar; a decision to cut additional openings in the exterior walls; and/or a decision to reinforce the building by the installation of an exposed reinforcing system.

- B. FEMA will review the proposed changes, and if FEMA determines that the changes will result in additional adverse effects to Station D, it will notify SHPO, S&WB, and the Concurring Parties by e-mail within 7-days and will consult with these parties to determine if there are feasible alternatives that may avoid or minimize the additional adverse effects. SHPO and Concurring Parties agree to cooperate with FEMA and S&WB to discuss the feasibility of alternatives that may avoid or minimize the additional adverse effects within a reasonable time frame. If FEMA determines that the proposed changes will not result in additional adverse effects, it will notify SHPO, S&WB, and the Concurring Parties of its determination that the proposed change will not result in additional adverse effects and the Undertaking may be completed with the proposed change. If the SHPO, S&WB, or a Concurring Party objects to FEMA's determination that the changes will not result in additional adverse effects within 7-days of FEMA's notice, FEMA will consult to resolve the objection following the process set out in Stipulation VII, Dispute Resolution.

IV. RECORDATION

- A. Photography: FEMA will digitally photograph the interior and exterior of the Station D with an emphasis on documenting any major change to the interior and those portions of the facades that will be reconstructed. This photographic recordation will be performed by or under the direct supervision of an individual who meets the Secretary of the Interior's Professional Qualification Standards set out at 48 FR 44716, September 29, 1983, for History, Architectural History, Architecture, or Historic Architecture. FEMA will take photographs of the following views, and using photographic printing methods outlined in Stipulation IV.A.2, FEMA will reproduce specific images, as indicated by the word "Print" following each view.
1. Photographs of each of four (4) exterior elevations [One (1) print of each of the four (4) elevations];
 2. Oblique view of four (4) exterior corners [One (1) print of each of the four (4) exterior corners];
 3. Two (2) photographs of boiler house on north side [One (1) print];
 4. One (1) photograph of the interior of the boiler house;
 5. One (1) photograph of pedimented central entry bay [Print];
 6. One (1) photograph of a 1st floor window and brick surround [Print];
 7. One (1) photograph of a 2nd floor window and brick surround [Print];
 8. Two (2) overall interior views [Print one (1) photograph showing interior wall where major portions of the elevations will be reconstructed or exposed bracing attached];
 9. One (1) photograph showing exterior detailing [Print];
 10. Two (2) photographs of the interior stairwell including at least one (1) photograph of the railing and baluster [Print one (1) photograph of interior stairwell and one (1) photograph of railing and baluster];
 11. Two (2) historical photographs [Digital only unless quality is sufficient for printing]; and
 12. Historic plans: FEMA will coordinate with SHPO to identify plans that will be copied [Digital only unless quality is sufficient for printing].

B. Specifications: The digital photography and color photographs must comply with the "Best" category of requirements from the National Register Photo Policy Fact Sheet:

http://www.nps.gov/nr/publications/bulletins/photopolicy/Photo_Policy_update_2013_05_15.pdf, with the following additional requirements:

1. Image files must be saved as both TIFF and JPEG files.
2. Color images must be produced in RGB (Red/Green/Blue) color mode as 24-bit or 48-bit color files.
3. In addition to the requirements specified by the latest National Register Photo Policy, photographs will be digitally labeled to state the address (name of facility, street number, street name, city, and state); date of photograph; description of view, as specified in Stipulation IV.A above, including direction of camera; and name of photographer/agency.
4. The photographic images will be eight inches by ten inches (8 in. x 10 in.) and will be printed on manufacturer recommended archival quality eight inches by ten inches (8 in. x 10 in.) or eight and one-half inches by eleven inches (8.5 in. x 11 in.) paper using manufacturer recommended ink for photographic printing.
5. Recordation materials will include a digital and hard archival copy of a photo log.

C. Narrative History: FEMA will also prepare a narrative history of Station D following the Historic American Building Survey (HABS) Historical Reports: Short form. The first draft will be completed within six (6) months of execution of this MOA. The report will be based on materials available at S&WB, the Historic Context Statement for the New Orleans Drainage Sewerage and Water Systems dated July 2012, prepared by FEMA, and the Determination of Age and Potential for National Register Historic Places Eligibility, Orleans Parish Drainage Pumping Stations, New Orleans, Orleans Parish, Louisiana dated June 2008, prepared for the U.S. Army Corps of Engineers by Earth Search, Inc., and will include copies of pertinent historic photographs and plans.

1. Professional Qualifications: The recordation materials will be prepared by or under the direct supervision of an individual who, as determined by FEMA, meets the Secretary of the Interior's Professional Qualification Standards set out at 48 FR 44716, September 29, 1983, for History, Architectural History, Historic Architecture and/or Archaeology, as appropriate.
2. Draft Review: FEMA will provide SHPO and S&WB with the draft digital photographs and narrative history for a fifteen (15) day comment period. If FEMA determines that it will not revise the draft materials to incorporate all of SHPO's comments, FEMA will, prior to preparing the archival copies of the recordation materials, provide SHPO with a written explanation describing why the revision was not made.

3. Distribution: FEMA will prepare four archival copies of the recordation materials and shall forward one copy to S&WB, two copies to SHPO and one copy to the Earl K. Long Library, University of New Orleans, Louisiana Special Collections.

V. INADVERTENT DISCOVERIES AND UNEXPECTED EFFECTS

- A. If, in the course of the Undertaking, archaeological deposits, as defined in 36 CFR §60.4(d), are discovered or unexpected effects to historic properties, including architecture, architectural elements, and/or archaeology, are identified, S&WB will ensure that its contractor immediately stops work in the general vicinity of the inadvertent discovery or unexpected effect and takes all reasonable measures to avoid or minimize harm to the finds or affected property. S&WB will ensure that the discovery or unexpected effects are secured and stabilized, as necessary, and access to the area is restricted.
- B. S&WB will notify FEMA and GOHSEP of inadvertent discoveries or unexpected effects as soon as practicable, but no later than three days following the discovery or unexpected effect. FEMA will notify and consult with the SHPO and others, including Tribes as appropriate, to determine if further steps to evaluate the NRHP eligibility and treatment of the discovery are necessary. FEMA may, in consultation with the SHPO, assume that a newly discovered property is eligible for the NRHP for purposes of this MOA.
- C. If FEMA and SHPO and others, as appropriate, conclude that the discovery does not contain human remains, is not eligible for the NRHP, and will not adversely affect a historic property, FEMA will notify S&WB that work may resume in the area of the discovery or unexpected effect.
- D. If FEMA and SHPO and others, as appropriate, determine that further steps are necessary to evaluate or treat the unexpected effect or the newly discovered property and it does not contain human remains, FEMA will work with SHPO, S&WB, GOHSEP, and others, as appropriate, to agree on timeframes to determine ways to avoid, minimize, or mitigate any adverse effects to the inadvertent discovery or the unexpected effect to a historic property. Any party to this consultation may request an on-site meeting to review the situation. FEMA will confirm the initial agreements of the parties regarding the timeframes for this consultation and any other agreements regarding the treatment of the inadvertent discovery or unexpected effect in an e-mail sent to GOHSEP, S&WB, SHPO, and other parties that participated in consultation regarding the discovery, as appropriate.
- E. If human skeletal remains are uncovered during the Undertaking, S&WB will immediately notify GOHSEP, FEMA, and the local law enforcement officials. The local law enforcement officials will assess the nature and age of the human skeletal remains. S&WB will ensure that the notice of the discovery required by Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq) is given to the Secretary of CRT or the Secretary's designee by contacting the Louisiana Division of Archeology at 225-342-8170 within seventy-two (72) hours of the discovery. If the coroner determines that

the human skeletal remains are older than 50 years of age, the Secretary of CRT has jurisdiction over the remains. FEMA will work with SHPO, Tribes, the Louisiana Division of Archaeology, S&WB, and GOHSEP to ensure compliance with this State law, other applicable laws, and this MOA. In addition, FEMA will require that the guidelines contained in the ACHP's 2007 "Policy Statement Regarding Burial Sites, Human Remains, and Funerary Objects" or any subsequent Policy Statements that are issued after the execution of this MOA are followed.

- F. At the conclusion of any consultation regarding discoveries or unexpected effects, FEMA will provide all parties that participated in the consultation with a written summary of the consultation and its resolution. This summary may be provided by e-mail.
- G. FEMA will notify S&WB and GOHSEP by e-mail when the consultation to resolve effects caused by a discovery or unexpected effects is concluded and work may be resumed in the area of the discovery or unexpected effect.

VI. ANTICIPATORY DEMOLITION/INTENTIONAL DESTRUCTION OF HISTORIC PROPERTIES

FEMA will not grant assistance to S&WB should it, with intent to avoid the requirements of this MOA or Section 106 of the NHPA, significantly adversely affect a historic property to which the assistance would relate, or having legal power to prevent it, allow such significant adverse effect to occur. After consultation with SHPO and ACHP, FEMA may determine that circumstances justify granting such assistance despite an adverse effect created or permitted by S&WB, and will complete consultation pursuant to 36 CFR §800.9(c).

VII. DISPUTE RESOLUTION

- A. Should any Signatory, Invited Signatory, or Concurring Party object in writing to FEMA within the timeframes provided by this MOA to any actions provided for review, FEMA shall notify S&WB and GOHSEP and consult further with the objecting party, S&WB, GOHSEP, and other parties, as appropriate, to seek resolution.
- B. FEMA will obtain a determination from the Secretary of Interior pursuant to 36 CFR part 63 if FEMA is not able to resolve SHPO or a Tribe's objection regarding National Register eligibility of a new discovered property or a previously unevaluated property that is unexpectedly affected by the Undertaking following the consultation described in Stipulation V.
- C. If FEMA determines that a dispute regarding an issue or issues other than NRHP eligibility cannot be resolved, FEMA shall forward all relevant documentation and FEMA's proposed resolution of the dispute to the ACHP. Within fifteen (15) days after receipt of this information, the ACHP will:
 - 1. Advise FEMA that it concurs with FEMA's resolution of the dispute; or

2. Provide FEMA with recommendations, which FEMA shall take into account in reaching a final decision regarding the dispute; or
 3. Notify FEMA that it shall comment pursuant to 36 CFR §800.7(c), and proceed to comment. Any comment provided shall be taken into account by FEMA in accordance with 36 CFR §800.7(c)(4) with reference to the subject of the dispute.
 4. Any ACHP recommendations or comments will be limited to the subject of the dispute.
- D. If ACHP does not provide FEMA with comments or recommendations within fifteen (15) days, FEMA may assume that ACHP does not object to its recommended approach and it shall proceed accordingly.
- E. FEMA will notify the Signatories, Invited Signatories, and Concurring Parties of its resolution of the dispute and provide documentation of its consultation with ACHP within fifteen (15) days following the completion of ACHP's review.
- F. FEMA's responsibilities to fulfill all requirements of the MOA that are not subject of the dispute shall remain unchanged.

VIII. PUBLIC OBJECTIONS

If at any time during implementation of the measures stipulated in this Agreement, should an objection relevant to the implementation of Stipulations II to V in this MOA be raised by a member of the public, FEMA shall take the objection into account, notify S&WB, GOHSEP, SHPO, and Concurring Parties and consult as needed with the objecting party, S&WB, GOHSEP, and SHPO and Concurring Parties, prior to FEMA's resolution of the objection. S&WB is not required to cease work on activities unrelated to the objection while the objection is being reviewed and resolved. FEMA will notify ACHP of its resolution of a public objection.

IX. AMENDMENTS, TERMINATION, AND NONCOMPLIANCE

- A. If S&WB determines that it is not feasible to complete the Undertaking or fulfill the requirements of this MOA, S&WB will immediately notify FEMA and GOHSEP in writing of this determination. Within twenty-one (21) days of receiving this notice, FEMA will meet with the Signatories, Invited Signatory, and Concurring Parties, in person or by telephone, to determine if the MOA must be amended or terminated, and proceed accordingly.
- B. Any Signatory or Invited Signatory may request in writing that the MOA be amended or terminated. Within twenty-one (21) days of such a request, FEMA will convene a meeting of the Signatories, Invited Signatory, and Concurring Parties to consider this request. The Parties will make a good faith effort to amend the MOA prior any Party taking steps to terminate it. The MOA may be amended upon the written agreement of

the Signatories and Invited Signatory, and the process will comply with 36 CFR §800.6(c)(7).

- C. FEMA is not required to convene a meeting of the Signatories, Invited Signatory, and Concurring Parties if the purpose of an amendment is to extend the duration of the MOA to allow additional time to complete construction of the Undertaking and/or complete the Treatment Measures set out in Stipulation IV. FEMA will convene a meeting if requested in writing by a Signatory, Invited Signatory, or Concurring Party.
- D. If the MOA is not amended, the Signatories or Invited Signatory may terminate the MOA by providing a thirty (30) day written notice to the other Signatories, Invited Signatory, and Concurring Parties. The Signatories, Invited Signatory, and Concurring Parties will cooperate in good faith to seek amendments or other actions that would prevent termination during this thirty (30) day time frame. Should consultation fail, FEMA will promptly notify the Signatories, Invited Signatory, and Concurring Parties in writing of termination. Termination of the MOA will require FEMA to comply with the Statewide Programmatic Agreement in effect on the date of the termination. This MOA may be terminated without further consultation by execution of a subsequent agreement that explicitly terminates or supersedes this MOA.

X. DURATION

- A. Unless amended or terminated in accordance with Stipulation IX, this MOA will remain in effect through December 31, 2020 or until FEMA determines that it has been satisfactorily fulfilled. FEMA shall amend the MOA to extend the duration date if construction and/or the Recordation included in Stipulation IV is not complete. If necessary, the amendment extending the duration date will be retroactive to the duration date referenced above and the terms of the MOA will not lapse during any gap between this duration date and execution of the amendment.
- B. S&WB will notify GOHSEP and FEMA when the Undertaking is completed, and FEMA will notify the Signatories, Invited Signatory, and Concurring Parties by e-mail when it determines that the terms of this MOA have been fulfilled. The notice date will be the effective date of the termination unless the notice specifically states a different termination date.

XI. EFFECTIVE DATE AND IMPLEMENTATION OF MOA

This MOA shall become effective immediately upon FEMA's filing an original copy signed by the Signatories and Invited Signatory with ACHP. FEMA shall provide each Signatory,

Invited Signatory, and Concurring Party with a complete copy of the MOA including all executed signature pages.

SIGNATORIES:

FEDERAL EMERGENCY MANAGEMENT AGENCY

Thomas M. (Mike) Womack
Director
Louisiana Recovery Office

Date: _____

Jerame Cramer
Environmental Liaison Officer
Louisiana Recovery Office

Date: _____

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
AMONG THE FEDERAL EMERGENCY MANAGEMENT AGENCY
THE LOUISIANA STATE HISTORIC PRESERVATION OFFICER
AND THE SEWAGE AND WATER BOARD OF NEW ORLEANS
REGARDING STATION D STRUCTURAL REPAIRS
2801 FLORIDA AVE., NEW ORLEANS, ORLEANS PARISH, LA
NEW ORLEANS, ORLEANS PARISH, LA (PW #11317v.3)**

LOUISIANA STATE HISTORIC PRESERVATION OFFICER

Phillip E. Boggan II
Deputy State Historic Preservation Officer

Date: _____

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
AMONG THE FEDERAL EMERGENCY MANAGEMENT AGENCY
THE LOUISIANA STATE HISTORIC PRESERVATION OFFICER
AND THE SEWAGE AND WATER BOARD OF NEW ORLEANS
REGARDING STATION D STRUCTURAL REPAIRS
2801 FLORIDA AVE., NEW ORLEANS, ORLEANS PARISH, LA
NEW ORLEANS, ORLEANS PARISH, LA (PW #11317v.3)**

INVITED SIGNATORY:

SEWERAGE AND WATER BOARD OF NEW ORLEANS

Cedric S. Grant
Executive Director

Date: _____

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
AMONG THE FEDERAL EMERGENCY MANAGEMENT AGENCY
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REGARDING STATION D STRUCTURAL REPAIRS
2801 FLORIDA AVE., NEW ORLEANS, ORLEANS PARISH, LA
NEW ORLEANS, ORLEANS PARISH, LA (PW #11317v.3)**

CONCURRING PARTIES:

**GOVERNOR'S OFFICE OF HOMELAND SECURITY AND EMERGENCY
PREPAREDNESS**

Kevin Davis
Director

Date: _____

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
AMONG THE FEDERAL EMERGENCY MANAGEMENT AGENCY
THE LOUISIANA STATE HISTORIC PRESERVATION OFFICER
AND THE SEWAGE AND WATER BOARD OF NEW ORLEANS
REGARDING STATION D STRUCTURAL REPAIRS
2801 FLORIDA AVE., NEW ORLEANS, ORLEANS PARISH, LA
NEW ORLEANS, ORLEANS PARISH, LA (PW #11317v.3)**

CONCURRING PARTIES (continued):

PRESERVATION RESOURCE CENTER

Michelle Kimball
Senior Advocate

Date: _____



SEWERAGE AND WATER BOARD OF NEW ORLEANS

October 19, 2015

Finance and Administration Committee
Sewerage and Water Board of New Orleans
New Orleans, Louisiana

Dear Directors:

Subject: Ratification of Contract for Web Payment Processing Service

This memorandum is intended to document the reason for expediting a contractual arrangement for web payment processing service and to request ratification of staff authorization for contracting with Invoice Cloud, Inc.

Currently, Xerox Corporation performs credit card authorization services as part of their larger contract for facility management of the Information Systems Department and then the passing credit card information to First Data and Liberty Bank for merchant services processing. Xerox has notified Sewerage and Water Board that they have lost the contract with Orange County, California through which they provided these services and that we need to make alternative arrangements by October 31, 2015.

Sewerage and Water Board will be moving from our in-house Customer Account Management System to the Cogsdale CSM System within the next nine to twelve months, so a move of contractual arrangements had already been contemplated during this period, but has been accelerated as a result of this notification from Xerox.

Cogsdale CSM currently supports web payment processing services through two vendor options: Harris Payment Gateway and Invoice Cloud. **Invoice Cloud is the sole source that can provide web payment processing services to the existing Customer Account Management System as well as the Cogsdale CSM System.**

Based upon the information noted above, I authorized staff to enter into negotiations with Invoice Cloud for a contract for these services for not more than \$300,000 and not to exceed one year, subject to signature approval by the Executive Director and ratification by the Board of Directors.

The negotiations have been successfully completed at a net cost of approximately \$118,200 per year, which represents a savings over the current contract of approximately \$87,000 per year. Staff requests ratification of the referenced contract with Invoice Cloud, Inc.

Robert K. Miller
Deputy Director

RATIFICATION OF CONTRACT FOR WEB PAYMENT PROCESSING SERVICE

WHEREAS, Sewerage and Water Board is on a path to update or replace all of its major legacy software systems in the near future; and

WHEREAS, Sewerage and Water Board will be moving from our in-house Customer Account Management System to the Cogsdale CSM System within the next nine to twelve months; and

WHEREAS, the next system to be replaced includes the Board's Web Payment Processing Service; and

WHEREAS, Xerox Corporation performs credit card authorization services as part of their larger contract for facility management of the Information Systems Department and then passes credit card information to First Data and Liberty Bank for merchant services processing; and

WHEREAS, a move of contractual arrangements has been accelerated as a result of notification from Xerox Corporation to the Sewerage & Water Board of New Orleans that they have lost the contract with Orange County, California through which they provided these services and alternative arrangements need to be made by October 31, 2015; and

WHEREAS, the Sewerage & Water Board of New Orleans's staff has entered into negotiations with Invoice Cloud, Inc. for a contract for these services for not more than \$300,000 and not to exceed one year, subject to signature approval by the Executive Director and ratification by the Board of Directors; and

WHEREAS, negotiations have been successfully completed at a net cost of approximately \$118,200 per year, which represents a savings over the current contract of approximately \$87,000 per year; and

NOW, THEREFORE BE IT RESOLVED, by the Sewerage and Water Board of New Orleans that the President or President Pro Tem is hereby authorized to ratify the Board's Web Payment Processing Service contract to remove Xerox Corporation as the service provider and enter into a contractual agreement with Invoice Cloud, Inc.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of the resolution adopted at a Regular Monthly Meeting of said Board, duly called and held, according to law on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: October 1, 2015

To: Board of Directors

From: Dexter Joseph, Planning & Budget Director

Re: Resolution R-187-2015 Roll Back of Sewerage and Water Board Millages for the fiscal year 2016.

Included in this package is Resolution, R-187-2015 Roll Back of Sewerage and Water Board Millages to set the Drainage Millage for the fiscal year 2016 for your consideration for adoption.

This Millage is for the operation and maintenance of the drainage system of the City of New Orleans and for the construction and extension of said drainage systems, excluding subsurface drainage systems and their appurtenances. The total Millage is 15.71 mills and it consist of a;

Three Mill Tax (Adjusted) - 4.46 mills LA Revised Statute 33:4124
Six Mill Tax (Adjusted) - 4.50 mills LA Revised Statute 33:4137
Nine Mill Tax (Adjusted) - 6.75 mills LA Revised Statute 33:4147

Upon completion of this action by you this Drainage Millage Resolution will be forwarded to the City Council by October 21, 2015 for them to set the rate which is required by the provisions of Article VII, Section 23 of the Louisiana Constitution to set the millages for certain tax recipient bodies within the Parish of Orleans, Sewerage and Water Board of New Orleans is one, and to levy Ad Valorem taxes on behalf of of itself or such other tax recipient bodies in the Parish of Orleans.

ROLL BACK OF SEWERAGE AND WATER BOARD MILLAGES

WHEREAS, the Council of the City of New Orleans is required by the provisions of Article VII, Section 23 of the Louisiana Constitution to adjust the millage for certain tax recipient bodies within the Parish of Orleans and to levy Ad Valorem taxes on behalf of itself or such other tax recipient bodies in the Parish of Orleans; and

WHEREAS, the quadrennial reassessment has been done and because the total value of property for 2016 is greater than the value for 2015 the Louisiana Constitution mandates a millage adjustment for 2016 to obtain the same revenue as in 2015:

NOW, THEREFORE, BE IT RESOLVED by the Sewerage and Water Board of New Orleans that it hereby requests the Council of the City of New Orleans to set its Ad Valorem tax millage as follows for 2016:

1. **Three Mill Tax (Adjusted) - LA Revised Statute 33:4124**
For the operation and maintenance of the drainage system of the City of New Orleans and for the construction and extension of said drainage systems, excluding subsurface drainage systems and their appurtenances: adjust from 4.66 mills to 4.46 mills; and
2. **Six Mill Tax (Adjusted) - LA Revised Statute 33:4137**
For the operation and maintenance of the drainage system of the City of New Orleans, and for the construction and extension of said drainage systems, excluding subsurface drainage systems and their appurtenances: adjust from 4.71 mills to 4.50 mills; and
3. **Nine Mill Tax (Adjusted) - LA Revised Statute 33:4147**
For the operation and maintenance of the drainage system of the City of New Orleans, and for the construction and extension of said drainage systems, excluding subsurface drainage systems and their appurtenances: adjust from 7.06 mills to 6.75 mills.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do
hereby certify that the above and foregoing
is a true and correct copy of a resolution
adopted at a Regular Monthly Meeting of
said Board, duly called and held, according
to law on October 21, 2015.

CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: October 1, 2015
To: Board of Directors
From: Dexter Joseph, Planning & Budget Director
Re: Resolution R-188-2015 Roll Forward of Sewerage and Water Board
Millages for the fiscal year 2016

Summary. Staff recommends adoption of the attached resolution to adjust millages collected on behalf of the Sewerage and Water Board to the same rates as were in effect in 2015.

Background. When a reassessment of property values was completed for 2016, the total value of property for 2016 was greater than the value for 2015. Because the Louisiana Constitution mandated a millage adjustment for 2016 to obtain the same revenue as in 2015, the Sewerage and Water Board took the required action. The Louisiana Constitution authorizes increases in the millage rate after reassessment but not in excess of the prior year's maximum authorized millage rate and only after a public hearing is held and call for that purpose, and only if approved by a two-third majority vote of the tax recipient body. A public hearing on this matter will be held on Wednesday October 21, 2015.

Additional Funding Requirements. The 2015-2019 Capital Program of the Sewerage and Water Board for drainage totals \$619,812,000 of which only \$617,339,000 is projected to be available, leaving a five-year shortfall of \$2,473,000. This shortfall may be funded with the issuance of new debt, but additional funds are needed to fund the principal and interest payments on that new debt. Additional funds will also be needed for debt service for a portion of the cost of improvements to the drainage system to be constructed by the Corp of Engineers and for increased operation and maintenance expenses of three new drainage pumping stations at the foot of the 17th Street, Orleans Avenue, and London Avenue Canals near Lake Ponchartrain.

Effect of Proposed Millage Adjustment. An increase of the 2016 millage rates back up to the 2015 millage rates would produce an additional annual income stream of approximately \$2,518,588 increasing from approximately from \$54,751,919 to \$57,270,375.

Three Mill Tax	LA Revised Statue 33:4124	4.46 mills to 4.66 mills
Six Mill Tax	LA Revised Statue 33:4137	4.50 mills to 4.71 mills
Nine Mill Tax	LA Revised Statute 33:4147	6.75 mills to 7.06 mills

These funds are dedicated by law and the Sewerage and Water Board to the drainage system that protects Orleans Parish.

Recommended Action. The Council of the City of New Orleans is required by the provisions of Article VII, Section 23 of the Louisiana Constitution to adjust the millage for certain tax recipient bodies within the Parish of Orleans and to levy Ad Valorem taxes on behalf of itself or such other tax recipient bodies in the Parish of Orleans. Staff recommends that it would be appropriate for the Finance / Operations Committee to recommend to the Board of Directors of the Sewerage and Water Board for adoption of the attached resolution to adjust millages collected on behalf of the Sewerage and Water Board to the same rates as were in effect in 2015.

ROLL FORWARD OF SEWERAGE AND WATER BOARD MILLAGES

WHEREAS, Article VII, Section 23 (C) of the Louisiana constitution authorizes increases in the Millage rate after reassessment but not in excess of the prior year's maximum authorized Millage rate, and only after a public hearing is held and call for that purpose, and only if approved by a two-third (2/3) majority vote of the tax recipient body; and

WHEREAS, the public hearing was held on October 21, 2015; and

WHEREAS, the Sewerage and Water Board has previously requested that the Council of the City of New Orleans to roll back the Millage rate for Ad Valorem taxes on behalf of itself to obtain the same revenue as in 2015; and

WHEREAS, the Sewerage and Water Board of New Orleans does desire to increase its millage for 2016 back to the same millage rates as were in effect in 2015, as allowed by law;

NOW, THEREFORE, BE IT RESOLVED by the Sewerage and Water Board of New Orleans that it hereby requests the Council of the City of New Orleans to set its Ad Valorem tax millage as follows for 2016:

1. Three Mill Tax (Adjusted) - LA Revised Statute 33:4124
For the operation and maintenance of the drainage system of the City of New Orleans and for the construction and extension of said drainage systems, excluding subsurface drainage systems and their appurtenances: adjust from 4.46 mills to 4.66 mills; and
2. Six Mill Tax (Adjusted) - LA Revised Statute 33:4137
For the operation and maintenance of the drainage system of the City of New Orleans and for the construction and extension of said drainage systems, excluding subsurface drainage systems and their appurtenances: adjust from 4.50 mills to 4.71 mills; and
3. Nine Mill Tax (Adjusted) - LA Revised Statute 33:4147
For the operation and maintenance of the drainage system of the City of New Orleans, and for the construction and extension of said drainage systems, excluding subsurface drainage systems and their appurtenances: adjust from 6.75 to 7.06 mills.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do
hereby certify that the above and foregoing
is a true and correct copy of a resolution
adopted at a Regular Monthly Meeting of
said Board, duly called and held, according
to law on October 21, 2015.

**CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**SECOND SUPPLEMENTAL
WATER REVENUE BOND RESOLUTION**

adopted on October 21, 2015

by the

SEWERAGE AND WATER BOARD OF NEW ORLEANS

**IN CONNECTION WITH THE ISSUANCE OF
NOT EXCEEDING \$100,000,000
WATER REVENUE BONDS, SERIES 2015
OF THE
CITY OF NEW ORLEANS, LOUISIANA**

TABLE OF CONTENTS

* * * * *

ARTICLE I DEFINITIONS AND FINDINGS

SECTION 1.01. Definitions.....	5
--------------------------------	---

ARTICLE II AUTHORIZATION AND ISSUANCE OF SERIES 2015 BONDS

SECTION 2.01. Authorization.....	6
SECTION 2.02. Form of Series 2015 Bonds.....	7
SECTION 2.03. Book-Entry Registration of Bonds.....	7
SECTION 2.04. Paying Agent's Registration.....	8

ARTICLE III REDEMPTION FEATURES OF SERIES 2015 BONDS

SECTION 3.01. Optional Redemption.....	9
SECTION 3.02. Mandatory Sinking Fund Redemption.....	9
SECTION 3.03. Notice of Redemption.....	9
SECTION 3.04. Transfer, Registration and Assignment.....	10

ARTICLE IV APPLICATION OF PROCEEDS OF SERIES 2015 BONDS

SECTION 4.01. Obligations and Conditions.....	11
---	----

ARTICLE V SALE OF SERIES 2015 BONDS

SECTION 5.01. Sale of Series 2015 Bonds.....	12
SECTION 5.02. Certificate of Determination.....	12
SECTION 5.03. Approval of Preliminary Official Statement, Official Statement, Purchase Agreement and Other Documents.....	13
SECTION 5.04. Authorized Officers.....	13

ARTICLE VI EXECUTION AND DELIVERY OF SERIES 2015 BONDS

SECTION 6.01. Execution/Delivery.....	14
---------------------------------------	----

**ARTICLE VII
MISCELLANEOUS PROVISIONS**

SECTION 7.01.	Selection of Paying Agent.	15
SECTION 7.02.	Effect of Partial Invalidity.	15
SECTION 7.03.	Effect of Covenants.....	15
SECTION 7.04.	Disclosure Under S.E.C. Rule 15c2-12.	15
SECTION 7.05.	Arbitrage.	15
SECTION 7.06.	Section Headings.	16
SECTION 7.07.	Conflicts.....	16
SECTION 7.08.	Publication.	16

**ARTICLE VIII
REQUEST FOR APPROVALS**

SECTION 8.01.	Request to the Board of Liquidation, City Debt, for the Sale and Delivery of the Series 2015 Bonds.....	17
SECTION 8.02.	Direction to Deliver Documents to the Board of Liquidation.	17
SECTION 8.03.	Request for Approval.....	17
SECTION 8.04.	State Bond Commission Swap Policy.....	17
SECTION 8.05.	Implementation of Rate Increases.....	17
SECTION 8.06.	Effective Date.	17

EXHIBIT A FORM OF BOND

EXHIBIT B FORM OF CERTIFICATE OF DETERMINATION

* * * * * *

SEWERAGE AND WATER BOARD OF NEW ORLEANS

**SECOND SUPPLEMENTAL WATER REVENUE BOND RESOLUTION
AUTHORIZING THE ISSUANCE OF**

WATER REVENUE BONDS, SERIES 2015

The following resolution was offered by _____ and seconded by

_____:

A Second Supplemental Resolution authorizing the issuance of not exceeding One Hundred Million Dollars (\$100,000,000) of Water Revenue Bonds, Series 2015, of the City of New Orleans, Louisiana; setting forth certain details in connection therewith; authorizing the execution and delivery of said bonds; authorizing the execution of a Bond Purchase Agreement and a Certificate of Determination; and providing for other matters relating to the foregoing.

WHEREAS, pursuant to Part III, Chapter 9, Title 33 of the Louisiana Revised Statutes of 1950, as amended, in particular Section 4096 thereof (the "Act"), the Sewerage and Water Board of New Orleans (the "Board") in the name of the City of New Orleans, Louisiana (the "City") is authorized to issue bonds; and

WHEREAS, on May 21, 2014, the Sewerage and Water Board of New Orleans (the "Board") adopted a General Water Revenue Bond Resolution) entitled " A resolution authorizing the issuance from time to time of Water Revenue Bonds of the City of New Orleans, Louisiana, providing for the general terms, form, manner of payment and security for payment of said bonds, providing for the issuance of a series of Water Revenue and Refunding Bonds, and providing for other matters in connection therewith" (the "General Resolution"), in which the Board authorized the issuance from time to time of Water Revenue Bonds under the Act and other constitutional and statutory authority; and

WHEREAS, capitalized terms used herein and not specifically defined herein shall have the meaning assigned to them in the General Resolution; and

WHEREAS, pursuant to the provisions of the General Bond Resolution and the First Supplemental Water Revenue Bond Resolution adopted by the Board on May 21, 2014 (the "First Supplemental Resolution"), the Board authorized the issuance of the City of New Orleans, Louisiana Water Revenue and Refunding Bonds, Series 2014 (the "Series 2014 Bonds") and set forth certain details in connection with the issuance of the Series 2014 Bonds; and

WHEREAS, in accordance with the Act and Section 4.03 of the General Bond Resolution, the Board now desires to adopt this Second Supplemental Resolution in order to provide for the issuance of a series of Additional Bonds to pay the Cost of Capital Improvements; to provide for the execution of a Bond Purchase Agreement and a Certificate of Determination which designates certain details of the Bonds, and certain other matters in connection therewith;

NOW, THEREFORE, BE IT RESOLVED by the Sewerage and Water Board of New Orleans, that:

ARTICLE I DEFINITIONS AND FINDINGS

SECTION 1.01. Definitions. In this Second Supplemental Resolution all capitalized terms shall have the meanings assigned thereto in the above preambles, in this Section 1.01 and in the General Resolution:

"Bond Purchase Agreement" shall mean the Bond Purchase Agreement dated as of the date of the sale of the Bonds by and between the Board of Liquidation and the Underwriters, and agreed to by the Board as to certain provisions.

"Certificate of Determination" means the Certificate of Determination authorized by Section 5.02 hereof.

"Second Supplemental Resolution" shall mean this resolution of the Board, authorizing the issuance of the Series 2015 Bonds.

"Paying Agent" and **"Trustee"** shall mean Whitney Bank, Baton Rouge, Louisiana, and its successors and assigns.

"Outstanding Parity Bonds" shall mean the City's outstanding Water Revenue and Refunding Bonds, Series 2014.

"Series 2015 Bonds" shall mean the City's Water Revenue Bonds, Series 2015, authorized to be issued by this Second Supplemental Resolution in an amount not to exceed One Hundred Million Dollars (\$100,000,000).

"Underwriters" shall mean an underwriting syndicate composed of the Underwriters selected by the Board of Liquidation.

ARTICLE II
AUTHORIZATION AND ISSUANCE OF SERIES 2015 BONDS

SECTION 2.01. Authorization.

(a) In compliance with and under the authority of the Act and the General Resolution, and other constitutional and statutory authority, there is hereby authorized the incurring of an indebtedness and issuance of revenue bonds in an aggregate principal amount of not exceeding One Hundred Million Dollars (\$100,000,000) (the "Series 2015 Bonds") for, on behalf of and in the name of the City, for the purpose of paying the costs of improving and expanding the water treatment plants, and improvements and repairs to the public water system of the City of New Orleans, Louisiana (the "Project"), funding a debt service reserve fund and other reserve funds as required hereunder, and paying costs of issuance of the Series 2015 Bonds. The aforesaid indebtedness shall be represented by the Series 2015 Bonds to be designated "City of New Orleans, Louisiana, Water Revenue Bonds, Series 2015." The Series 2015 Bonds are Senior Debt under the General Resolution.

(b) The Series 2015 Bonds shall be fixed rate bonds, shall be dated the date of delivery, shall be in fully registered form, shall be in the denomination of Five Thousand Dollars (\$5,000) each or any integral multiple thereof within a single maturity, shall be numbered from No. R-1 upward and shall bear interest from the date thereof or from the most recent interest payment date to which interest has been paid or duly provided for, such interest to be payable semiannually on each June 1 and December 1, commencing June 1, 2016, and shall have such details as shall be set forth in the Certificate of Determination authorized in Section 5.02 hereof and a resolution adopted by the Board of Liquidation authorizing the sale of the Series 2015 Bonds. As required by Resolution R-118-2015 adopted by the Board on June 17, 2015, the Board specifies that the Series 2015 Bonds shall bear interest at a rate not to exceed seven per centum (7.0%) per annum and shall mature not later than thirty (30) years from the date thereof, as shall be set forth in the Certificate of Determination and as shall be fixed by resolution adopted by the Board of Liquidation authorizing the sale of the Series 2015 Bonds. The Series 2015 Bonds shall mature on December 1 in each of the years set forth in the Certificate of Determination.

(c) The Series 2015 Bonds, equally with the Outstanding Parity Bonds, are Common Debt Service Reserve Secured Bonds.

(d) The Series 2015 Bonds, equally with the Outstanding Parity Bonds, are equally and ratably secured by the Pledge of Net Revenues, as set forth in Section 4.02 of the General Resolution.

(e) The interest on the Series 2015 Bonds shall be payable by check or draft of the Paying Agent mailed on or prior to the interest payment date by the Paying Agent to the Registered Owners of the Series 2015 Bonds as shown on the registration books of the Paying Agent on the 15th day of the calendar month next preceding the interest payment date. During any period after the initial delivery of the Series 2015 Bonds in book-entry-only form when the Bonds are delivered in multiple certificates form, upon request of a registered owner of at least

\$1,000,000 in principal amount of Series 2015 Bonds outstanding, payments of principal, premium, if any, and interest on the Series 2015 Bonds will be paid by wire transfer in immediately available funds to an account designated by such registered owner; CUSIP number identification with appropriate dollar amounts for each CUSIP number must accompany all payments of principal, premium, and interest, whether by check or by wire transfer.

SECTION 2.02. Form of Series 2015 Bonds. The Series 2015 Bonds shall be substantially in the form attached hereto as **Exhibit A**.

SECTION 2.03. Book-Entry Registration of Bonds. The Series 2015 Bonds shall be initially issued in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), as registered owner of the Bonds, and held in the custody of DTC. The Board of Liquidation has delivered a Blanket Letter of Representation (the "Letter of Representation") to DTC on behalf of the City and the Board with respect to the issuance of bonds in "book-entry only" format. The terms and provisions of said Letter of Representation shall govern in the event of any inconsistency between the provisions of the General Resolution and this Second Supplemental Resolution and said Letter of Representation. A single certificate will be issued and delivered to DTC for each maturity of the Series 2015 Bonds. The Beneficial Owners will not receive physical delivery of Series 2015 Bond certificates except as provided herein. Beneficial Owners are expected to receive a written confirmation of their purchase providing details of each Series 2015 Bond acquired. For so long as DTC shall continue to serve as securities depository for the Series 2015 Bonds as provided herein, all transfers of beneficial ownership interest will be made by book-entry only, and no investor or other party purchasing, selling or otherwise transferring beneficial ownership of Series 2015 Bonds is to receive, hold or deliver any Series 2015 Bond certificate.

Notwithstanding anything to the contrary herein, while the Series 2015 Bonds are issued in the book-entry-only form, the payment of principal of, premium, if any, and interest on the Series 2015 Bonds may be payable by the Paying Agent by wire transfer to DTC in accordance with the Letter of Representation.

For every transfer and exchange of the Series 2015 Bonds, the Beneficial Owner may be charged a sum sufficient to cover such Beneficial Owner's allocable share of any tax, fee or other governmental charge that may be imposed in relation thereto.

Series 2015 Bond certificates are required to be delivered to and registered in the name of the Beneficial Owner under the following circumstances:

(a) DTC determines to discontinue providing its service with respect to the Series 2015 Bonds. Such a determination may be made at any time by giving 30 days' notice to the Board of Liquidation and the Paying Agent and discharging its responsibilities with respect thereto under applicable law.

(b) The Board or the Board of Liquidation determines that continuation of the system of book-entry transfer through DTC (or a successor securities depository) is not in its best interests or the best interests of the Beneficial Owners.

The Board of Liquidation and the Paying Agent will recognize DTC or its nominee as the Bondholder for all purposes, including notices and voting.

Neither the City, the Board, the Board of Liquidation or the Paying Agent are responsible for the performance by DTC of any of its obligations, including, without limitation, the payment of moneys received by DTC, the forwarding of notices received by DTC or the giving of any consent or proxy in lieu of consent.

Whenever during the term of the Series 2015 Bonds the beneficial ownership thereof is determined by a book entry at DTC, the requirements of this Second Supplemental Resolution of holding, delivering or transferring the Series 2015 Bonds shall be deemed modified to require the appropriate person to meet the requirements of DTC as to registering or transferring the book entry to produce the same effect.

If at any time DTC ceases to hold the Series 2015 Bonds, all references herein to DTC shall be of no further force or effect.

SECTION 2.04. Paying Agent's Registration. No Series 2015 Bond shall be entitled to any right or benefit under the General Resolution or this Second Supplemental Resolution, or be valid or obligatory for any purpose unless there appears on such Series 2015 Bond a certificate of registration, substantially in the form provided in the bond form attached hereto, executed by the Paying Agent by manual signature.

ARTICLE III

REDEMPTION FEATURES OF SERIES 2015 BONDS

SECTION 3.01. Optional Redemption. The optional redemption provisions of the Series 2015 Bonds shall be set forth in the Certificate of Determination. The maturities of the Bonds to be redeemed shall be selected by the Board of Liquidation in its discretion.

SECTION 3.02. Mandatory Sinking Fund Redemption. The mandatory sinking fund redemption provisions, if any, of the Series 2015 Bonds shall be set forth in the Certificate of Determination.

SECTION 3.03. Notice of Redemption. In the event a Series 2015 Bond to be redeemed is of a denomination larger than \$5,000, a portion of such Series 2015 Bond (or any integral multiple of \$5,000 in excess thereof) may be redeemed. Any Series 2015 Bond which is to be redeemed only in part may be surrendered at the principal corporate trust office of the Paying Agent and there shall be delivered to the Owner of such Series 2015 Bond a new Series 2015 Bond or Series 2015 Bonds of the same maturity and of any authorized denomination or denominations as requested by such Owner in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Series 2015 Bond so surrendered. All notices of redemption shall state (i) the redemption date; (ii) the redemption price; (iii) if fewer than all the Series 2015 Bonds are to be redeemed, the identifying number (and in the case of partial redemption, the respective principal amounts) and CUSIP number of the Series 2015 Bonds to be redeemed; (iv) that on the redemption date the redemption price will become due and payable on each such Series 2015 Bond and interest thereon will cease to accrue thereon from and after said date; and (v) the place where such Series 2015 Bonds are to be surrendered for payment. Official notice of such call of any of the Series 2015 Bonds for redemption shall be given by means of first-class mail, postage prepaid, by notice deposited in the United States mails not less than thirty (30) days prior to the redemption date addressed to the registered owner of each Series 2015 Bond to be redeemed at his address as shown on the registration books maintained by the Paying Agent.

In the case of an optional redemption, the notice may state (i) that it is conditioned upon the deposit of moneys, in an amount equal to the amount necessary to effect the redemption, with the Paying Agent no later than the redemption date, or (ii) that the Board of Liquidation retains the right to rescind such notice at any time prior to the scheduled redemption date if the Board of Liquidation delivers a certificate of an Authorized Officer to the Paying Agent instructing the Paying Agent to rescind the redemption notice (in either case, a "Conditional Redemption"), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described herein. The Paying Agent shall give prompt notice of such rescission to the affected Bondowners. Any Series 2015 Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and the rescission shall not constitute an Event of Default. Further, in the case of a Conditional Redemption, the failure of the Board of Liquidation to make funds available in part or in whole on or before the redemption date shall not constitute an Event of Default.

Any notice mailed or provided herein shall conclusively be presumed to have been given whether or not actually received by any Bondholder. Failure to give such notice or any defect therein shall not affect the validity of the redemption proceedings.

SECTION 3.04. Transfer, Registration and Assignment. The Series 2015 Bonds may be transferred, registered and assigned only on the registration books of the Paying Agent, and such registration shall be at the expense of the Issuer. A Series 2015 Bond may be assigned by the execution of an assignment form on such Series 2015 Bonds or by other instruments of transfer and assignment acceptable to the Paying Agent. A new Series 2015 Bond or Series 2015 Bonds will be delivered by the Paying Agent to the last assignee (the new registered owner) in exchange for such transferred and assigned Series 2015 Bonds after receipt of such Series 2015 Bonds to be transferred in proper form. Such new Series 2015 Bond or Series 2015 Bonds must be in the denomination of \$5,000 or any integral multiple in excess thereof within a single maturity. Neither the Board of Liquidation nor the Paying Agent shall be required to issue, register the transfer of, or exchange (i) any Series 2015 Bond during a period beginning at the opening of business on the 15th day of the month next preceding any interest payment date and ending at the close of business on the interest payment date, or (ii) any Series 2015 Bond called for redemption prior to maturity during the period of fifteen (15) days after the mailing of notice of redemption as provided herein, but only with respect to those Series 2015 Bonds which are the subject of such redemption.

ARTICLE IV
APPLICATION OF PROCEEDS OF SERIES 2015 BONDS

SECTION 4.01. Obligations and Conditions. As a condition to the issuance of the Series 2015 Bonds, the Board hereby obligates itself or shall cause the Board of Liquidation to:

(a) Set aside proceeds of the Series 2015 Bonds representing accrued interest, if any, into the Debt Service Fund, which is held under Section 7.04 of the General Resolution by the Board of Liquidation; and

(b) Transfer to the Series 2015 Account of the Construction Fund established by Section 6.01 of the General Resolution the amount of Series 2015 Bond Proceeds set aside for construction of the Project and the amount to be set aside for capitalized interest, if any. As determined in the Certificate of Determination.

(c) Transfer to the Debt Service Reserve Fund the amount necessary to fully fund the Debt Service Reserve Fund for the Series 2015 Bonds and the Outstanding Parity Bonds in an amount equal to the Common Debt Service Reserve Requirement.

(d) Provide for the payment of all Cost of Issuance of the Series 2015 Bonds from proceeds of the Series 2015 Bonds set aside by the Board of Liquidation for this purpose.

(e) Provide for the payment of bond insurance should it be available and cost effective.

The amounts of the deposits set forth above shall be set forth in the Certificate of Determination executed at the time of sale of the Series 2015 Bonds.

ARTICLE V SALE OF SERIES 2015 BONDS

SECTION 5.01. Sale of Series 2015 Bonds. The Series 2015 Bonds shall be sold for and on behalf of the Board and the City by the Board of Liquidation at a private or public sale in accordance with the provisions of the Act. The Board of Liquidation may determine to sell less than all of the Series 2015 Bonds authorized herein. The President, President *pro tempore* and the Executive Director of the Board are each hereby authorized to execute any and all instruments, certificates, documents, and papers relating to the issuance, sale and delivery of the Series 2015 Bonds, in connection with the sale of the Series 2015 Bonds in such form as may be approved by said officers upon the advice of Bond Counsel.

SECTION 5.02. Certificate of Determination. Certain details of the Series 2015 Bonds (which shall be established in accordance with the parameters set forth in Section 2.01 hereof) shall be established by the Certificate of Determination contemporaneously with the execution and delivery by the Board and the Board of Liquidation of the hereinafter defined Bond Purchase Agreement. Each and every such determination set forth in the Certificate of Determination shall be deemed conclusive for all purposes. The Certificate of Determination shall be substantially in the form set forth in Exhibit B hereto, with such variations, omissions and insertions as are permitted or required by this Second Supplemental Resolution.

Subject to the parameters set forth herein and Resolution R-118-2015 adopted by the Board on June 17, 2015, any two of the Executive Director, President or President *pro tempore* are hereby authorized to determine, upon the advice of the Financial Advisor to the City and after consultation with and concurrence of Bond Counsel and the Board of Liquidation:

- (a) The principal amount of the Series 2015 Bonds;
- (b) The purchase price of the Series 2015 Bonds;
- (c) The maturity schedule of the Series 2015 Bonds;
- (d) The optional redemption provisions of the Series 2015 Bonds;
- (e) The mandatory sinking fund redemption schedule, if any, of the Series 2015 Bonds;
- (f) The interest rates on the Series 2015 Bonds;
- (g) The application of proceeds of the Series 2015 Bonds; and.
- (h) any other matters or provisions related to the Series 2015 Bonds, including any change necessitated by the pricing of the Series 2015 Bonds, in each case in accordance or not inconsistent with the provisions of the General Resolution or this Second Supplemental Resolution.

The Board shall deliver the executed Certificate of Determination to the Board of Liquidation as soon as possible after the execution of the Bond Purchase Agreement.

SECTION 5.03. Approval of Preliminary Official Statement, Official Statement, Purchase Agreement and Other Documents.

(a) (a) In connection with the issuance and sale of the Series 2015 Bonds, there have been prepared and submitted at this meeting forms of:

- (i) the Preliminary Official Statement (the "Preliminary Official Statement") used in connection with the marketing of the Series 2015 Bonds;
- (ii) a draft of the final Official Statement (the "Official Statement") to be used in connection with the sale of the Series 2015 Bonds;
- (iii) the Bond Purchase Agreement in connection with the sale of the Series 2015 Bonds; and
- (iv) the Continuing Disclosure Certificate.

(b) The Preliminary Official Statement in the form presented to this meeting and made a part hereof as though set forth in full herein, be and the same is hereby approved and its use by the Underwriters in connection with the public offering and marketing of the Series 2015 Bonds is hereby ratified.

(c) The Official Statement in substantially the form presented to this meeting and made a part hereof as though set forth in full herein, be and the same is hereby approved and its use by the Underwriters in connection with the public offering and sale of the Series 2015 Bonds with such changes, insertions and omissions as may be approved by the Executive Director, President and/or President *pro tempore* is hereby approved.

(d) The Continuing Disclosure Certificate in substantially the form submitted to this meeting and made parts hereof as though set forth in full herein, be and the same are hereby approved. The Executive Director of the Board is hereby authorized and directed to execute and deliver the Continuing Disclosure Certificate with such changes, insertions and omissions as they may approve, said execution being conclusive evidence of such approval.

SECTION 5.04. Authorized Officers. The Executive Director and the President and the President *pro tempore*, acting singly, be and each of them hereby is authorized and directed to execute and deliver any and all documents and instruments and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by the General Bond Resolution, the Official Statement, the Bond Purchase Agreement and the Continuing Disclosure Certificate.

ARTICLE VI
EXECUTION AND DELIVERY OF SERIES 2015 BONDS

SECTION 6.01. Execution/Delivery. The President *pro tempore* of this Board, the Mayor of the City and the President and Secretary of the Board of Liquidation are authorized to sign and deliver the Series 2015 Bonds in the form set forth in Exhibit A hereto, including any changes, additions and deletions thereto approved by bond counsel, in definitive form, as printed bonds, and to execute and deliver any and all additional proofs, instruments and certificates required by or provided for in the General Resolution, this Second Supplemental Resolution, or the Series 2015 Bonds, and perform such other acts as may otherwise be required to effectuate the financing herein provided for. All of the signatures authorized hereinabove as so executed shall be deemed conclusive evidence of the due exercise of the authority vested in each such officer hereunder, and shall be sufficient to create binding obligations of the Board, the City and the Board of Liquidation. All such signatures may be facsimiles thereof, so long as the signature of the Paying Agent is manually executed.

ARTICLE VII MISCELLANEOUS PROVISIONS

SECTION 7.01. Selection of Paying Agent. The Board hereby designates Whitney Bank, Baton Rouge, Louisiana, to serve as Paying Agent for the Series 2015 Bonds. The Paying Agent shall signify in writing its acceptance of its duties under this Second Supplemental Resolution at or prior to the delivery of the Series 2015 Bonds.

SECTION 7.02. Effect of Partial Invalidity. In case any one or more of the provisions of the General Resolution or this Second Supplemental Resolution shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect other provisions of the General Resolution or this Second Supplemental Resolution, but the General Resolution and this Second Supplemental Resolution shall be construed and enforced as if such illegal or invalid provisions had not been contained therein.

SECTION 7.03. Effect of Covenants. All covenants, stipulations, obligations and agreements of the Board contained in this Second Supplemental Resolution shall be deemed to be covenants, stipulations, obligations and agreements of the Board to the full extent permitted by the Constitution and laws of the State of Louisiana.

SECTION 7.04. Disclosure Under S.E.C. Rule 15c2-12. The Executive Director of the Board is hereby empowered and directed to execute an appropriate Continuing Disclosure Certificate (substantially in the form set forth in the official statement issued in connection with the sale and issuance of the Series 2015A Bonds) pursuant to S.E.C. Rule 15c2-12(b)(5).

SECTION 7.05. Arbitrage. The Board covenants and agrees that, to the extent permitted by the laws of the State of Louisiana, it will comply with the requirements of the Internal Revenue Code of 1986 and any amendment thereto (the "Code") in order to establish, maintain and preserve the exclusion from "gross income" of interest on the Series 2015 Bonds under the Code. The Issuer further covenants and agrees that it will not take any action, fail to take any action, or permit any action within its control to be taken, or permit at any time or times any of the proceeds of the Series 2015 Bonds or any other funds of the Board to be used directly or indirectly in any manner, the effect of which would be to cause the Series Bonds to be "arbitrage bonds" or would result in the inclusion of the interest on any of the Series 2015 Bonds in gross income under the Code, including, without limitation, (i) the failure to comply with the limitation on investment of Series 2015 Bond proceeds or (ii) the failure to pay any required rebate of arbitrage earnings to the United States of America or (iii) the use of the proceeds of the Series 2015 Bonds in a manner which would cause the Bonds to be "private activity bonds".

The Executive Director, President and President *pro tempore* are hereby empowered, authorized and directed to take any and all action and to execute and deliver any instrument, document or certificate necessary to effectuate the purposes of this Section.

SECTION 7.06. Section Headings. The headings of the various Sections hereof are inserted for convenience of reference only and shall not control or affect the meaning or construction of any of the provisions hereof.

SECTION 7.07. Conflicts. All resolutions and orders or parts thereof in conflict herewith as they are applicable to the Series 2015 Bonds, to the extent of such conflict and only with respect to their applicability to the Series 2015 Bonds, shall be superseded by the applicable provisions of this Second Supplemental Resolution.

SECTION 7.08. Publication. A copy of this Second Supplemental Resolution shall be published as soon as practicable after its adoption in one issue of the official journal of the City, and it shall not be necessary to publish the exhibits hereto if the exhibits are made available for public inspection at reasonable times and that fact is stated in the publication. For a period of thirty (30) days from the date of publication, any person in interest may contest the legality of this Second Supplemental Resolution and of any provision hereof made for the security and payment of the Series 2015 Bonds. After the expiration of said thirty (30) days, no one shall have any cause or right of action to test the regularity, formality, legality or effectiveness of this Second Supplemental Resolution and the provisions hereof or of the Series 2015 Bonds for any cause whatsoever. If no suit, action, or proceeding is begun contesting the validity of the Series 2015 Bonds within the thirty days, the authority to issue the bonds and to provide for the payment thereof, and the legality thereof and of all of this Second Supplemental Resolution shall be conclusively presumed, and no court shall thereafter have authority to inquire into such matters.

ARTICLE VIII REQUEST FOR APPROVALS

SECTION 8.01. Request to the Board of Liquidation, City Debt, for the Sale and Delivery of the Series 2015 Bonds. The Board of Liquidation is hereby requested to cause the Series 2015 Bonds to be sold, executed and delivered to the purchaser thereof upon receipt of the purchase price thereof and accrued interest, if any, to the date of delivery.

SECTION 8.02. Direction to Deliver Documents to the Board of Liquidation. The Executive Director of the Board is hereby directed to deliver to the Board of Liquidation, as soon as such documents are available, the documents specified in Section 4.03 of the General Resolution with respect to the Series 2015 Bonds.

SECTION 8.03. Request for Approval. A certified copy of this resolution shall be furnished to the City Council of the City. The Board hereby requests the Council of the City and the Board of Liquidation to approve this Second Supplemental Resolution and any other resolutions of the Board providing for the issuance of the Series 2015 Bonds, if required by law.

SECTION 8.04. State Bond Commission Swap Policy. The Bonds were approved by the Louisiana State Bond Commission on October 15, 2015. By virtue of the Board's application for, acceptance and utilization of the benefits of the Louisiana State Bond Commission's approval resolved and set forth herein, it resolves that it understands and agrees that such approval is expressly conditioned upon, and it further resolves that it understands, agrees and binds itself, its successors and assigns to, full and continuing compliance with the "State Bond Commission Policy on Approval of Proposed Use of Swaps, or other forms of Derivative Products Hedges, Etc., adopted by the Commission on July 20, 2006, as to the borrowing and other matters subject to the approval, including subsequent application and approval under said Policy of the implementation or use of any swaps or other products or enhancements covered thereby.

SECTION 8.05. Implementation of Rate Increases. The Board acknowledges and agrees that the Series 2015 Bonds are being issued in anticipation of and in reliance on rate increases approved by the Board, the Board of Liquidation and the City Council of the City through the year 2020, and timely implementation of such rate increases as heretofore adopted constitutes a contract with Bondholders.

SECTION 8.06. Effective Date. This Second Supplemental Resolution shall become effective immediately.

This resolution having been submitted to a vote, the vote thereon was as follows:

<u>Member</u>	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>	<u>Abstaining</u>
Suchitra Satpathi (for Mitchell J. Landrieu)	<u> </u>	<u> </u>	<u> </u>	<u> </u>
William Raymond Manning	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Marion B. Bracy	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Kerri T. Kane	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Scott Jacobs	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Robin Barnes	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Tamika Duplessis, Ph.D.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Kimberly Thomas, JD	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Joseph Peychaud	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Alan C. Arnold	<u> </u>	<u> </u>	<u> </u>	<u> </u>

And the resolution was declared adopted on this 21st day of October, 2015.

EXHIBIT A
TO SECOND SUPPLEMENTAL RESOLUTION

FORM OF BOND

Unless this Bond is presented by an authorized representative of the Depository Trust Company, a New York corporation ("DTC"), to the Board or the City or their agent for registration of transfer, exchange, or payment, and any Bond issued is registered in the name of CEDE & CO. or in such other name as is requested by an authorized representative of DTC (and any payment is made to CEDE & CO. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, CEDE & CO., has an interest herein.

As provided in the Resolution referred to herein, until the termination of the system of book-entry-only transfers through DTC and notwithstanding any other provision of the Resolution (herein defined) to the contrary, this Bond may be transferred, in whole but not in part, only to a nominee of DTC, or by a nominee of DTC to DTC or a nominee of DTC, or by DTC or a nominee of DTC to any successor securities depository or any nominee thereof.

No. R-_____

Principal Amount: \$_____

UNITED STATES OF AMERICA
STATE OF LOUISIANA
PARISH OF ORLEANS

CITY OF NEW ORLEANS, LOUISIANA
WATER REVENUE BOND, SERIES 2015

Maturity Date

Interest Rate

Bond Date

CUSIP

December 1, _____

PRINCIPAL AMOUNT: _____ DOLLARS

The CITY OF NEW ORLEANS, LOUISIANA (the "City"), for value received, promises to pay, but only from the sources and as hereinafter provided, to

REGISTERED OWNER: CEDE & CO. (Tax Identification #13-2555119)

or registered assigns, on the Maturity Date set forth above, the Principal Amount set forth above, together with interest thereon from the Bond Date set forth above or the most recent interest payment date to which interest has been paid or duly provided for, payable on June 1 and December 1 of each year, commencing June 1, 2017 (each an "Interest Payment Date"), at the

Interest Rate per annum set forth above until said Principal Amount is paid, unless this Bond shall have been previously called for redemption and payment shall have been duly made or provided for. The principal of this Bond, upon maturity or redemption, is payable at the principal corporate trust office of Whitney Bank, Baton Rouge, Louisiana, or successor thereto (the "Paying Agent") upon presentation and surrender hereof, and interest on this Bond will be payable by the Paying Agent by check mailed by the Paying Agent to the registered owner (determined as of the close of business on the 15th calendar day of the month next preceding said Interest Payment Date (the "Record Date"), whether or not such day is a business Day (as defined in the Resolution) at the address as shown on the registration books of the Paying Agent. Interest on this Bond shall be calculated on the basis of a 360-day year consisting of twelve 30-day months.

During any period after the initial delivery of the Bonds in book-entry-only form when the Bonds are delivered in multiple certificates form, upon request of a registered owner of at least \$1,000,000 in principal amount of Bonds outstanding, all payments of principal, premium, if any, and interest on the Bonds will be paid by wire transfer in immediately available funds to an account designated by such registered owner; CUSIP number identification with appropriate dollar amounts for each CUSIP number must accompany all payments of principal, premium, and interest, whether by check or by wire transfer.

FOR SO LONG AS THIS BOND IS HELD IN BOOK-ENTRY FORM REGISTERED IN THE NAME OF CEDE & CO. ON THE REGISTRATION BOOKS OF THE CITY KEPT BY THE PAYING AGENT, AS BOND REGISTRAR, THIS BOND, IF CALLED FOR PARTIAL REDEMPTION IN ACCORDANCE WITH THE BOND RESOLUTION, SHALL BECOME DUE AND PAYABLE ON THE REDEMPTION DATE DESIGNATED IN THE NOTICE OF REDEMPTION GIVEN IN ACCORDANCE WITH THE BOND RESOLUTION AT, AND ONLY TO THE EXTENT OF, THE REDEMPTION PRICE, PLUS ACCRUED INTEREST TO THE SPECIFIED REDEMPTION DATE; AND THIS BOND SHALL BE PAID, TO THE EXTENT SO REDEEMED, (i) UPON PRESENTATION AND SURRENDER THEREOF AT THE OFFICE SPECIFIED IN SUCH NOTICE OR (ii) AT THE WRITTEN REQUEST OF CEDE & CO., BY CHECK MAILED TO CEDE & CO. BY THE PAYING AGENT OR BY WIRE TRANSFER TO CEDE & CO. BY THE PAYING AGENT IF CEDE & CO. AS BONDOWNER SO ELECTS. IF, ON THE REDEMPTION DATE, MONEYS FOR THE REDEMPTION OF BONDS OF SUCH MATURITY TO BE REDEEMED, TOGETHER WITH INTEREST TO THE REDEMPTION DATE, SHALL BE HELD BY THE PAYING AGENT SO AS TO BE AVAILABLE THEREFOR ON SUCH DATE, AND AFTER NOTICE OF REDEMPTION SHALL HAVE BEEN GIVEN IN ACCORDANCE WITH THE BOND RESOLUTION, THEN, FROM AND AFTER THE REDEMPTION DATE, THE AGGREGATE PRINCIPAL AMOUNT OF THIS BOND SHALL BE IMMEDIATELY REDUCED BY AN AMOUNT EQUAL TO THE AGGREGATE PRINCIPAL AMOUNT THEREOF SO REDEEMED, NOTWITHSTANDING WHETHER THIS BOND HAS BEEN SURRENDERED TO THE PAYING AGENT FOR CANCELLATION.

This Bond is one of an authorized issue aggregating in principal the sum of _____ Dollars (\$_____) (the "Bonds"), all of like tenor and effect except as to number, denomination, interest rate and maturity, said Bonds having been issued in the name of the City,

acting by and through the Sewerage and Water Board of New Orleans (the "Board"), for the purpose of (i) paying the costs of improving and expanding the water treatment plants, and improvements, betterments and repairs to the public water system of the City of New Orleans, Louisiana, (ii) funding a debt service reserve fund, and (iii) paying costs of issuance of the Bonds. The Bonds have been issued pursuant to a General Water Revenue Bond Resolution adopted by the Board on May 21, 2014 and a Second Supplemental Water Bond Resolution adopted by the Board on October 21, 2015, and by a resolution adopted by the Board of Liquidation, City Debt (the "Board of Liquidation") on _____, 2015 (collectively, the "Resolution"), under the authority conferred by Section 4096 of Title 33 of the Louisiana Revised Statutes of 1950, as amended (the "Act"), and other constitutional and statutory authority. This Bond and the issue of which it forms a part are payable as to both principal and interest solely from the Net Revenues and other funds of the Board pledged for that purpose by the Resolution. Subject to the foregoing, this Bond and the issue of which it forms a part are issued on a complete parity with the Issuer's outstanding Water Revenue and Refunding Bonds, Series 2014 (the "Outstanding Parity Bonds"), with respect to the revenues derived from water charges and other funds pledged by the Resolution for the payment and security of the Bonds and the Outstanding Parity Bonds.

The Bonds, equally with the Outstanding Parity Bonds and such additional bonds as may hereafter be issued under the Resolution on a parity therewith are, and are to be, equally and ratably secured by the pledge of the revenues derived from the collection of charges for water, for purposes relating to the water system of the City, as provided in the Act and the Resolution, to which reference is hereby made for a more complete description of the rights of the owners of the Bonds and of the Board with respect to the water system of the City, and the revenues thereof, and the terms and conditions upon which the Bonds and such additional parity bonds are, and are to be, issued, to all of the provisions of which Resolution each Bond owner, by acceptance hereof, assents. This Bond and the issue of which it forms a part do not constitute a debt of the City, and neither the credit nor the taxing power of the City is pledged to the payment thereof, or any part thereof, or to the payment of any interest thereon.

Pursuant to the Act, the Board of Liquidation, as now organized and created and with the powers, duties and functions prescribed by existing laws, shall be continued while any bonds authorized by the aforesaid provisions of law are outstanding and unpaid; and all water revenues which may be collected for the payment of said Bonds shall, be paid over to said Board of Liquidation, and shall by it be applied in payment of the principal of and interest on said Bonds; and said Board of Liquidation shall, with respect to all Bonds authorized, be entitled to exercise all the rights and enforce the performance of all the obligations, the same as it is authorized to do under existing laws with respect to any of the registered outstanding Bonds of the Board. Each Bond of this issue constitutes a contract between the City, the Board, the Board of Liquidation, and the Registered Owner of such Bond.

Those Bonds maturing December 1, 20__ and thereafter shall be subject to redemption at the option of the Board of Liquidation in full or in part at any time on after December 1, 20__, at a redemption price equal to 100% of the principal amount of the Series 2015 Bonds to be redeemed, together with accrued interest to the date fixed for redemption. The maturities of the Bonds to be redeemed shall be selected by the Board of Liquidation in its discretion.

In the event of redemption of fewer than all the outstanding Bonds of like maturity, such Bonds shall be redeemed by lot or in such other manner as shall be deemed fair and equitable by the Paying Agent for random selection.

Optional redemption of the Series 2015 Bonds shall be applied ratably, as nearly as possible, against each of the mandatory sinking fund requirements set forth below.

The Bonds due on December 1, 20__, shall be subject to mandatory redemption prior to maturity through application of sinking fund payments on June 1 in each of the years and in the respective principal amounts set forth below, in each case at a redemption price equal to 100 of their principal amount, plus accrued interest to the date of redemption.

<u>Year</u> <u>(December 1)</u>	<u>Amount</u>
20__	\$ _____
20__	_____
20__	_____
20__	_____
20__ *	_____

*Final maturity

In the event a Bond is of a denomination larger than \$5,000, a portion of such Bond (\$5,000 or any multiple thereof) may be redeemed. Official notice of such call of any of the Bonds for redemption will be given by first class mail, postage prepaid, by notice deposited in the United States mails not less than thirty (30) days prior to the redemption date addressed to the registered owner of each Bond to be redeemed at his address as shown on the registration books of the Paying Agent.

There shall be kept at the principal corporate trust office of the Paying Agent a register (the "Bond Register") in which registration of the Bonds shall be made as provided herein. This Bond is transferable only upon the records kept for that purpose at the principal corporate trust office of the Paying Agent by the person in whose name this Bond is registered (the "Registered Owner") or by his or her attorney duly authorized in writing, upon surrender hereof together with a written instrument of transfer satisfactory to the Paying Agent duly executed by the Registered Owner or such duly authorized attorney, and thereupon the Paying Agent shall issue in the name of the transferee a new fully registered Bond or Bonds of the same aggregate principal amount and designation, maturity and interest rate as the surrendered Bond, and upon the payment of the costs of any transfer taxes or other governmental charges relating thereto. The Board of Liquidation and the Paying Agent may treat and consider the person in whose name this Bond is registered as the absolute owner hereof for the purpose of receiving payment of or on account of the principal hereof and interest and premium, if any, hereon, and for all other purposes whatsoever. Neither the Board of Liquidation nor the Paying Agent shall be required to issue, register the transfer of, or exchange (i) any Bond during a period beginning at the opening of business on the 15th day of the month next preceding any interest payment date and ending at the close of business on the interest payment date, or (ii) any Bond called for redemption prior to

maturity during the period of fifteen (15) days after the mailing of notice of redemption as provided herein, but only with respect to those Bonds which are the subject of such redemption

This Bond and the series of which it forms a part are issuable in the form of fully registered bonds of the denomination of \$5,000 each or any integral multiple thereof. Subject to the conditions and upon the payment of the costs of any transfer taxes or other governmental charges relating to the transfer of this Bond upon surrender hereof at the principal corporate trust office of the Paying Agent with a written instrument of transfer satisfactory to the Paying Agent duly executed by the Registered Owner or by his attorney duly authorized in writing, this Board may at the option of the Registered Owner hereof be exchanged for an equal aggregate principal amount of fully registered bonds of the same designation, maturity and interest rate and of any authorized denomination.

For a more complete statement of the source of moneys from which and conditions under which this Bond is payable, a statement of the conditions under which additional Bonds may hereafter be issued on a parity with the Bonds, and the general covenants and provisions pursuant to which this Bond is issued, and the conditions under which the pledges and covenants of the City, the Board and the Board of Liquidation may be discharged and this Bond no longer be deemed outstanding, reference is hereby made to the Resolution. This Bond and the issue of which it forms a part do not constitute a debt of the City, but are payable as to principal and interest, solely out of the Net Revenues of the Board pledged for that purpose.

This Bond shall not be valid or become obligatory for any purpose or be entitled to any security or benefit under the Resolution (herein defined) until the certificate of registration hereon shall have been signed by the Paying Agent.

It is hereby certified, recited and declared that all acts, conditions and things required by the Constitution and laws of the State of Louisiana to exist, to have happened and to have been performed precedent to and in the issuance of this Bond do exist, have happened and have been performed in regular and due time form and manner as prescribed by law, and the amount of this Bond and the issue of which it forms a part, together with all other obligations or indebtedness of the City and the Board, does not exceed any constitutional, statutory or other limitation of indebtedness.

IN WITNESS WHEREOF, the City of New Orleans, Louisiana has caused this Bond to be executed in its name by the facsimile signatures of its Mayor, the President *pro tempore* of the Sewerage and Water Board of New Orleans, and the President and Secretary of the Board of Liquidation, City Debt, and a facsimile of its corporate seal to be imprinted hereon.

CITY OF NEW ORLEANS, LOUISIANA

By: _____ By: _____
President, Mayor,
Board of Liquidation, City Debt City of New Orleans, Louisiana

By: _____ By: _____
Secretary, President, *pro tempore*,
Board of Liquidation, City Debt Sewerage and Water Board of New Orleans

[SEAL]

* * * * *

PAYING AGENT'S CERTIFICATE OF REGISTRATION

This Bond is one of the Bonds referred to in the within-mentioned Resolution.

WHITNEY BANK,
as Paying Agent

Date of Registration: _____ By: _____
Authorized Officer

* * * * *

LEGAL OPINION CERTIFICATE

I, the undersigned Secretary of the Board of Liquidation, City Debt, do hereby certify that the following is a true copy of the complete joint legal opinion of Foley & Judell, L.L.P. Haley Law Firm, LLC and McKee Law Firm, LLC, Co-Bond Counsel, the original of which was manually executed, dated and issued as of the date of payment for and delivery of this Bond and was delivered to _____, representing the original purchasers thereof:

[Insert Legal Opinion]

I further certify that an executed copy of the above legal opinion is on file in my office, and that an executed copy thereof has been furnished to the Paying Agent for this Bond.

Secretary
Board of Liquidation, City Debt

* * * * *

FORM OF ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto _____

Please Insert Social Security
or other Identifying Number of Assignee

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints _____

attorney or agent to transfer the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated: _____

NOTICE: The signature to this assignment must correspond with the name as it appears upon the face of the within Bond in every particular, without alteration or enlargement or any change whatever.

* * * * *

EXHIBIT B
TO SECOND SUPPLEMENTAL RESOLUTION

FORM OF CERTIFICATE OF DETERMINATION

NOT TO EXCEED \$100,000,000

CITY OF NEW ORLEANS, LOUISIANA
WATER REVENUE BONDS
2015 SERIES A

We, the undersigned representatives of the Sewerage and Water Board of New Orleans (the "Board"), pursuant to the General Sewerage Service Bond Resolution adopted by the Board on May 21, 2014 and the Second Supplemental Water Revenue Bond Resolution adopted by the Board on October 21, 2015 (collectively, the "Resolution"), do hereby certify and determine, on behalf of the Board, with respect to the sale of the above captioned bonds (the "Bonds") to _____, as representative of the underwriters (the "Underwriter"), as follows:

1. **Defined Terms.** Terms not otherwise defined in this Certificate of Determination shall have the same meanings as set forth in the Resolution unless the context otherwise requires.
2. **Principal Amount.** The principal amount of the Bonds is _____.
3. **Purchase Price.** The Bonds were sold at a price of \$_____, representing \$_____ principal amount, plus original issue premium of \$_____, less underwriting discount of \$_____.
4. **Maturity Schedule and Interest Rates*.** The Bonds shall mature on December 1 of each year in the principal amounts and shall bear interest at the rates (not to exceed 7.0%) as follows:

<u>Year</u> <u>(December 1)</u>	<u>Principal</u> <u>Amount*</u>	<u>Interest</u> <u>Rate</u>	<u>Year</u> <u>(December 1)</u>	<u>Principal</u> <u>Amount*</u>	<u>Interest</u> <u>Rate</u>
2016	\$ _____	____. ____ %	2031	_____	____. ____ %
2017	_____	____. ____ %	2032	_____	____. ____ %
2018	_____	____. ____ %	2033	_____	____. ____ %
2019	_____	____. ____ %	2034	_____	____. ____ %
2020	_____	____. ____ %	2035	_____	____. ____ %
2021	_____	____. ____ %	2036	_____	____. ____ %
2022	_____	____. ____ %	2037	_____	____. ____ %
2023	_____	____. ____ %	2038	_____	____. ____ %
2024	_____	____. ____ %	2039	_____	____. ____ %
2025	_____	____. ____ %	2040	_____	____. ____ %
2026	_____	____. ____ %	2041	_____	____. ____ %
2027	_____	____. ____ %	2042	_____	____. ____ %
2028	_____	____. ____ %	2043	_____	____. ____ %
2029	_____	____. ____ %	2044	_____	____. ____ %
2030	_____	____. ____ %	2045	_____	____. ____ %

*Such principal amounts are preliminary and are subject to change depending on market conditions existing on the date of sale. [However, such amounts will not change by more than is necessary to fund the deposits referred to in Paragraph 6 and in particular, fund a deposit to the Construction Fund (net of Capitalized Interest) in an amount not to exceed \$100,000,000, subject to a 10% positive or negative variation].

Term Bonds Option: At pricing, the Board of Liquidation may designate the principal amounts of the Bonds maturing on and after December 1, 2025 as Term Bonds, and any such Term Bonds will have a stated maturity amount equal to the sum of the annual principal amounts designated as a part of such term maturity. Only one term maturity may be subject to mandatory sinking fund redemption in any year. Upon such designation, the Bonds of such term maturity shall be subject to mandatory sinking fund redemption in part by lot on December 1, such that the principal amount subject to mandatory sinking fund redemption matches the principal amounts set forth in the table above, adjusted as permitted by this Certificate, and equals the principal amount of such Term Bond. Such sinking fund redemptions shall be in the principal amounts, adjusted as permitted by this Certificate, which would otherwise have matured sequentially in such designated years, at the price of par plus accrued interest to the redemption date, without premium.

Furthermore, if the Board of Liquidation, after consultation with the Sewerage and Water Board, determines in its sole discretion that the funds necessary to accomplish the purposes for issuance, as herein described, are either more or less than the proceeds of the sale of all of the Bonds, the Board of Liquidation and the Sewerage and Water Board reserve the right either to increase or decrease the principal amount of any maturity of the Bonds (to be rounded to the nearest \$5,000), provided that any such increase shall not, in the aggregate, cause the total amount of Bonds to exceed the maximum principal amount of \$100,000,000 authorized by the Sewerage and Water Board.

5. **Optional Redemption.** Those Bonds maturing December 1, 20__ and thereafter shall be subject to redemption at the option of the Board of Liquidation in full or in part at any time on or after December 1, 20__, at a redemption price equal to 100% of the principal amount of the Series 2015 Bonds to be redeemed, together with accrued interest to the date fixed for redemption. The maturities of the Bonds to be redeemed shall be selected by the Board of Liquidation in its discretion.

6. **Use of Proceeds.** The proceeds of the Bonds in the amount of \$_____, plus additional monies of the Board in the amount of \$_____, shall be disbursed as follows:

- (a) \$_____ shall be deposited in the Series 2015 Account of the Construction Fund; of such amount, \$_____ shall be used to pay Project costs;
- (b) \$_____ shall be deposited to the Debt Service Reserve Fund;
- (c) \$_____ shall be deposited to the Capitalized Interest Fund; and
- (d) \$_____ shall be used to pay Costs of Issuance.

Preliminary; subject to change.

IN WITNESS WHEREOF, witness our signatures on this _____ day of _____, 2015.

SEWERAGE AND WATER BOARD OF
NEW ORLEANS

By: _____
Title: Executive Director

By: _____
Title: President *pro tempore*

STATE OF LOUISIANA

PARISH OF ORLEANS

I, the undersigned Executive Director of the Sewerage and Water Board of New Orleans (the "Board"), do hereby certify that the foregoing pages constitute a true and correct copy of a Second Supplemental Water Revenue Bond Resolution adopted by the Board on October 21, 2015, setting forth certain details in connection with the issuance of not exceeding One Hundred Million Dollars (\$100,000,000) of Water Revenue Bonds, Series 2015; authorizing the execution of a Bond Purchase Agreement and a Certificate of Determination; and providing for other matters relating to the foregoing.

IN FAITH WHEREOF, witness my official signature on this, the 21st day of October, 2015.

Executive Director

**SECOND SUPPLEMENTAL SEWERAGE SERVICE
REVENUE BOND RESOLUTION**

adopted on October 21, 2015

by the

SEWERAGE AND WATER BOARD OF NEW ORLEANS

**IN CONNECTION WITH THE ISSUANCE OF
NOT EXCEEDING \$100,000,000
SEWERAGE SERVICE REVENUE BONDS, SERIES 2015
OF THE
CITY OF NEW ORLEANS, LOUISIANA**

TABLE OF CONTENTS

* * * * *

ARTICLE I DEFINITIONS AND FINDINGS

SECTION 1.01. Definitions.....	5
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ARTICLE II AUTHORIZATION AND ISSUANCE OF SERIES 2015 BONDS

SECTION 2.01. Authorization.....	6
SECTION 2.02. Form of Series 2015 Bonds.....	7
SECTION 2.03. Book-Entry Registration of Bonds.....	7
SECTION 2.04. Paying Agent's Registration.....	8

ARTICLE III REDEMPTION FEATURES OF SERIES 2015 BONDS

SECTION 3.01. Optional Redemption.....	9
SECTION 3.02. Mandatory Sinking Fund Redemption.....	9
SECTION 3.03. Notice of Redemption.....	9
SECTION 3.04. Transfer, Registration and Assignment.....	10

ARTICLE IV APPLICATION OF PROCEEDS OF SERIES 2015 BONDS

SECTION 4.01. Obligations and Conditions.....	11
---	----

ARTICLE V SALE OF SERIES 2015 BONDS

SECTION 5.01. Sale of Series 2015 Bonds.....	12
SECTION 5.02. Certificate of Determination.....	12
SECTION 5.03. Approval of Preliminary Official Statement, Official Statement, Purchase Agreement and Other Documents.....	13
SECTION 5.04. Authorized Officers.....	13

ARTICLE VI EXECUTION AND DELIVERY OF SERIES 2015 BONDS

SECTION 6.01. Execution/Delivery.....	14
---------------------------------------	----

**ARTICLE VII
MISCELLANEOUS PROVISIONS**

SECTION 7.01.	Selection of Paying Agent.	15
SECTION 7.02.	Effect of Partial Invalidity.	15
SECTION 7.03.	Effect of Covenants.....	15
SECTION 7.04.	Disclosure Under S.E.C. Rule 15c2-12.	15
SECTION 7.05.	Arbitrage.	15
SECTION 7.06.	Section Headings.	16
SECTION 7.07.	Conflicts.	16
SECTION 7.08.	Publication.	16

**ARTICLE VIII
REQUEST FOR APPROVALS**

SECTION 8.01.	Request to the Board of Liquidation, City Debt, for the Sale and Delivery of the Series 2015 Bonds.....	17
SECTION 8.02.	Direction to Deliver Documents to the Board of Liquidation.	17
SECTION 8.03.	Request for Approval.	17
SECTION 8.04.	State Bond Commission Swap Policy.....	17
SECTION 8.05.	Implementation of Rate Increases.....	17
SECTION 8.06.	Effective Date.	17

EXHIBIT A FORM OF BOND

EXHIBIT B FORM OF CERTIFICATE OF DETERMINATION

* * * * * *

SEWERAGE AND WATER BOARD OF NEW ORLEANS

**SECOND SUPPLEMENTAL SEWERAGE SERVICE REVENUE BOND RESOLUTION
AUTHORIZING THE ISSUANCE OF**

SEWERAGE SERVICE REVENUE BONDS, SERIES 2015

The following resolution was offered by _____ and seconded by

_____;

A Second Supplemental Resolution authorizing the issuance of not exceeding One Hundred Million Dollars (\$100,000,000) of Sewerage Service Revenue Bonds, Series 2015, of the City of New Orleans, Louisiana; setting forth certain details in connection therewith; authorizing the execution and delivery of said bonds; authorizing the execution of a Bond Purchase Agreement and a Certificate of Determination; and providing for other matters relating to the foregoing.

WHEREAS, pursuant to Part III, Chapter 9, Title 33 of the Louisiana Revised Statutes of 1950, as amended, in particular Section 4121 thereof (the "Act"), the Sewerage and Water Board of New Orleans (the "Board") in the name of the City of New Orleans, Louisiana (the "City") is authorized to issue bonds; and

WHEREAS, on May 21, 2014, the Sewerage and Water Board of New Orleans (the "Board") adopted a General Sewerage Service Revenue Bond Resolution) entitled " A resolution authorizing the issuance from time to time of Sewerage Service Revenue Bonds of the City of New Orleans, Louisiana, providing for the general terms, form, manner of payment and security for payment of said bonds, providing for the issuance of a series of Sewerage Service Revenue and Refunding Bonds, and providing for other matters in connection therewith" (the "General Resolution"), in which the Board authorized the issuance from time to time of Sewerage Service Revenue Bonds under the Act and other constitutional and statutory authority; and

WHEREAS, capitalized terms used herein and not specifically defined herein shall have the meaning assigned to them in the General Resolution; and

WHEREAS, pursuant to the provisions of the General Bond Resolution and the First Supplemental Sewerage Service Revenue Bond Resolution adopted by the Board on May 21, 2014 (the "First Supplemental Resolution"), the Board authorized the issuance of the City of New Orleans, Louisiana Sewerage Service Revenue and Refunding Bonds, Series 2014 (the "Series 2014 Bonds") and the reissuance of the Series 2011 Bonds as Common Debt Service Reserve Secured Bonds on a parity with the Series 2014 Bonds and set forth certain details in connection with the issuance of the Series 2014 Bonds; and

WHEREAS, in accordance with the Act and Section 4.03 of the General Bond Resolution, the Board now desires to adopt this Second Supplemental Resolution in order to provide for the issuance of a series of Additional Bonds to pay the Cost of Capital Improvements; to provide for the execution of a Bond Purchase Agreement and a Certificate of Determination which designates certain details of the Bonds, and certain other matters in connection therewith;

NOW, THEREFORE, BE IT RESOLVED by the Sewerage and Water Board of New Orleans, that:

ARTICLE I DEFINITIONS AND FINDINGS

SECTION 1.01. Definitions. In this Second Supplemental Resolution all capitalized terms shall have the meanings assigned thereto in the above preambles, in this Section 1.01 and in the General Resolution:

"Bond Purchase Agreement" shall mean the Bond Purchase Agreement dated as of the date of the sale of the Bonds by and between the Board of Liquidation and the Underwriters, and agreed to by the Board as to certain provisions.

"Certificate of Determination" means the Certificate of Determination authorized by Section 5.02 hereof.

"Second Supplemental Resolution" shall mean this resolution of the Board, authorizing the issuance of the Series 2015 Bonds.

"Paying Agent" and **"Trustee"** shall mean Whitney Bank, Baton Rouge, Louisiana, and its successors and assigns.

"Outstanding Parity Bonds" shall mean the City's outstanding (i) Sewerage Service Revenue Bonds, Series 2011 and (ii) Sewerage Service Revenue and Refunding Bonds, Series 2014.

"Series 2015 Bonds" shall mean the City's Sewerage Service Revenue Bonds, Series 2015, authorized to be issued by this Second Supplemental Resolution in an amount not to exceed One Hundred Million Dollars (\$100,000,000).

"Underwriters" shall mean an underwriting syndicate composed of the Underwriters selected by the Board of Liquidation.

ARTICLE II AUTHORIZATION AND ISSUANCE OF SERIES 2015 BONDS

SECTION 2.01. Authorization.

(a) In compliance with and under the authority of the Act and the General Resolution, and other constitutional and statutory authority, there is hereby authorized the incurring of an indebtedness and issuance of revenue bonds in an aggregate principal amount of not exceeding One Hundred Million Dollars (\$100,000,000) (the "Series 2015 Bonds") for, on behalf of and in the name of the City, for the purpose of paying the costs of extensions, improvements, enlargements, betterments, alterations, renewals and replacements to the sewerage system of the City of New Orleans, Louisiana, including land, equipment and other real or personal properties (the "Project"), funding a debt service reserve fund and other reserve funds as required hereunder, and paying costs of issuance of the Series 2015 Bonds. The aforesaid indebtedness shall be represented by the Series 2015 Bonds to be designated "City of New Orleans, Louisiana, Sewerage Service Revenue Bonds, Series 2015." The Series 2015 Bonds are Senior Debt under the General Resolution.

(b) The Series 2015 Bonds shall be fixed rate bonds, shall be dated the date of delivery, shall be in fully registered form, shall be in the denomination of Five Thousand Dollars (\$5,000) each or any integral multiple thereof within a single maturity, shall be numbered from No. R-1 upward and shall bear interest from the date thereof or from the most recent interest payment date to which interest has been paid or duly provided for, such interest to be payable semiannually on each June 1 and December 1, commencing June 1, 2016, and shall have such details as shall be set forth in the Certificate of Determination authorized in Section 5.02 hereof and a resolution adopted by the Board of Liquidation authorizing the sale of the Series 2015 Bonds. As required by Resolution R-119-2015 adopted by the Board on June 17, 2015, the Board specifies that the Series 2015 Bonds shall bear interest at a rate not to exceed seven per centum (7.0%) per annum and shall mature not later than thirty (30) years from the date thereof, as shall be set forth in the Certificate of Determination and as shall be fixed by resolution adopted by the Board of Liquidation authorizing the sale of the Series 2015 Bonds. The Series 2015 Bonds shall mature on June 1 in each of the years set forth in the Certificate of Determination.

(c) The Series 2015 Bonds, equally with the Outstanding Parity Bonds, are Common Debt Service Reserve Secured Bonds.

(d) The Series 2015 Bonds, equally with the Outstanding Parity Bonds, are equally and ratably secured by the Pledge of Net Revenues, as set forth in Section 4.02 of the General Resolution.

(e) The interest on the Series 2015 Bonds shall be payable by check or draft of the Paying Agent mailed on or prior to the interest payment date by the Paying Agent to the Registered Owners of the Series 2015 Bonds as shown on the registration books of the Paying Agent on the 15th day of the calendar month next preceding the interest payment date. During any period after the initial delivery of the Series 2015 Bonds in book-entry-only form when the

Bonds are delivered in multiple certificates form, upon request of a registered owner of at least \$1,000,000 in principal amount of Series 2015 Bonds outstanding, payments of principal, premium, if any, and interest on the Series 2015 Bonds will be paid by wire transfer in immediately available funds to an account designated by such registered owner; CUSIP number identification with appropriate dollar amounts for each CUSIP number must accompany all payments of principal, premium, and interest, whether by check or by wire transfer.

SECTION 2.02. Form of Series 2015 Bonds. The Series 2015 Bonds shall be substantially in the form attached hereto as Exhibit A.

SECTION 2.03. Book-Entry Registration of Bonds. The Series 2015 Bonds shall be initially issued in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), as registered owner of the Bonds, and held in the custody of DTC. The Board of Liquidation has delivered a Blanket Letter of Representation (the "Letter of Representation") to DTC on behalf of the City and the Board with respect to the issuance of bonds in "book-entry only" format. The terms and provisions of said Letter of Representation shall govern in the event of any inconsistency between the provisions of the General Resolution and this Second Supplemental Resolution and said Letter of Representation. A single certificate will be issued and delivered to DTC for each maturity of the Series 2015 Bonds. The Beneficial Owners will not receive physical delivery of Series 2015 Bond certificates except as provided herein. Beneficial Owners are expected to receive a written confirmation of their purchase providing details of each Series 2015 Bond acquired. For so long as DTC shall continue to serve as securities depository for the Series 2015 Bonds as provided herein, all transfers of beneficial ownership interest will be made by book-entry only, and no investor or other party purchasing, selling or otherwise transferring beneficial ownership of Series 2015 Bonds is to receive, hold or deliver any Series 2015 Bond certificate.

Notwithstanding anything to the contrary herein, while the Series 2015 Bonds are issued in the book-entry-only form, the payment of principal of, premium, if any, and interest on the Series 2015 Bonds may be payable by the Paying Agent by wire transfer to DTC in accordance with the Letter of Representation.

For every transfer and exchange of the Series 2015 Bonds, the Beneficial Owner may be charged a sum sufficient to cover such Beneficial Owner's allocable share of any tax, fee or other governmental charge that may be imposed in relation thereto.

Series 2015 Bond certificates are required to be delivered to and registered in the name of the Beneficial Owner under the following circumstances:

(a) DTC determines to discontinue providing its service with respect to the Series 2015 Bonds. Such a determination may be made at any time by giving 30 days' notice to the Board of Liquidation and the Paying Agent and discharging its responsibilities with respect thereto under applicable law.

(b) The Board or the Board of Liquidation determines that continuation of the system of book-entry transfer through DTC (or a successor securities depository) is not in its best interests or the best interests of the Beneficial Owners.

The Board of Liquidation and the Paying Agent will recognize DTC or its nominee as the Bondholder for all purposes, including notices and voting.

Neither the City, the Board, the Board of Liquidation or the Paying Agent are responsible for the performance by DTC of any of its obligations, including, without limitation, the payment of moneys received by DTC, the forwarding of notices received by DTC or the giving of any consent or proxy in lieu of consent.

Whenever during the term of the Series 2015 Bonds the beneficial ownership thereof is determined by a book entry at DTC, the requirements of this Second Supplemental Resolution of holding, delivering or transferring the Series 2015 Bonds shall be deemed modified to require the appropriate person to meet the requirements of DTC as to registering or transferring the book entry to produce the same effect.

If at any time DTC ceases to hold the Series 2015 Bonds, all references herein to DTC shall be of no further force or effect.

SECTION 2.04. Paying Agent's Registration. No Series 2015 Bond shall be entitled to any right or benefit under the General Resolution or this Second Supplemental Resolution, or be valid or obligatory for any purpose unless there appears on such Series 2015 Bond a certificate of registration, substantially in the form provided in the bond form attached hereto, executed by the Paying Agent by manual signature.

ARTICLE III REDEMPTION FEATURES OF SERIES 2015 BONDS

SECTION 3.01. Optional Redemption. The optional redemption provisions of the Series 2015 Bonds shall be set forth in the Certificate of Determination. The maturities of the Bonds to be redeemed shall be selected by the Board of Liquidation in its discretion.

SECTION 3.02. Mandatory Sinking Fund Redemption. The mandatory sinking fund redemption provisions, if any, of the Series 2015 Bonds shall be set forth in the Certificate of Determination.

SECTION 3.03. Notice of Redemption. In the event a Series 2015 Bond to be redeemed is of a denomination larger than \$5,000, a portion of such Series 2015 Bond (or any integral multiple of \$5,000 in excess thereof) may be redeemed. Any Series 2015 Bond which is to be redeemed only in part may be surrendered at the principal corporate trust office of the Paying Agent and there shall be delivered to the Owner of such Series 2015 Bond a new Series 2015 Bond or Series 2015 Bonds of the same maturity and of any authorized denomination or denominations as requested by such Owner in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Series 2015 Bond so surrendered. All notices of redemption shall state (i) the redemption date; (ii) the redemption price; (iii) if fewer than all the Series 2015 Bonds are to be redeemed, the identifying number (and in the case of partial redemption, the respective principal amounts) and CUSIP number of the Series 2015 Bonds to be redeemed; (iv) that on the redemption date the redemption price will become due and payable on each such Series 2015 Bond and interest thereon will cease to accrue thereon from and after said date; and (v) the place where such Series 2015 Bonds are to be surrendered for payment. Official notice of such call of any of the Series 2015 Bonds for redemption shall be given by means of first-class mail, postage prepaid, by notice deposited in the United States mails not less than thirty (30) days prior to the redemption date addressed to the registered owner of each Series 2015 Bond to be redeemed at his address as shown on the registration books maintained by the Paying Agent.

In the case of an optional redemption, the notice may state (i) that it is conditioned upon the deposit of moneys, in an amount equal to the amount necessary to effect the redemption, with the Paying Agent no later than the redemption date, or (ii) that the Board of Liquidation retains the right to rescind such notice at any time prior to the scheduled redemption date if the Board of Liquidation delivers a certificate of an Authorized Officer to the Paying Agent instructing the Paying Agent to rescind the redemption notice (in either case, a "Conditional Redemption"), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described herein. The Paying Agent shall give prompt notice of such rescission to the affected Bondowners. Any Series 2015 Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and the rescission shall not constitute an Event of Default. Further, in the case of a Conditional Redemption, the failure of the Board of Liquidation to make funds available in part or in whole on or before the redemption date shall not constitute an Event of Default.

Any notice mailed or provided herein shall conclusively be presumed to have been given whether or not actually received by any Bondholder. Failure to give such notice or any defect therein shall not affect the validity of the redemption proceedings.

SECTION 3.04. Transfer, Registration and Assignment. The Series 2015 Bonds may be transferred, registered and assigned only on the registration books of the Paying Agent, and such registration shall be at the expense of the Issuer. A Series 2015 Bond may be assigned by the execution of an assignment form on such Series 2015 Bonds or by other instruments of transfer and assignment acceptable to the Paying Agent. A new Series 2015 Bond or Series 2015 Bonds will be delivered by the Paying Agent to the last assignee (the new registered owner) in exchange for such transferred and assigned Series 2015 Bonds after receipt of such Series 2015 Bonds to be transferred in proper form. Such new Series 2015 Bond or Series 2015 Bonds must be in the denomination of \$5,000 or any integral multiple in excess thereof within a single maturity. Neither the Board of Liquidation nor the Paying Agent shall be required to issue, register the transfer of, or exchange (i) any Series 2015 Bond during a period beginning at the opening of business on the 15th day of the month next preceding any interest payment date and ending at the close of business on the interest payment date, or (ii) any Series 2015 Bond called for redemption prior to maturity during the period of fifteen (15) days after the mailing of notice of redemption as provided herein, but only with respect to those Series 2015 Bonds which are the subject of such redemption.

ARTICLE IV
APPLICATION OF PROCEEDS OF SERIES 2015 BONDS

SECTION 4.01. Obligations and Conditions. As a condition to the issuance of the Series 2015 Bonds, the Board hereby obligates itself or shall cause the Board of Liquidation to:

(a) Set aside proceeds of the Series 2015 Bonds representing accrued interest, if any, into the Debt Service Fund, which is held under Section 7.04 of the General Resolution by the Board of Liquidation; and

(b) Transfer to the Series 2015 Account of the Construction Fund established by Section 6.01 of the General Resolution the amount of Series 2015 Bond Proceeds set aside for construction of the Project and the amount to be set aside for capitalized interest, if any, as determined in the Certificate of Determination.

(c) Transfer to the Debt Service Reserve Fund the amount necessary to fully fund the Debt Service Reserve Fund for the Series 2015 Bonds and the Outstanding Parity Bonds in an amount equal to the Common Debt Service Reserve Requirement.

(d) Provide for the payment of all Cost of Issuance of the Series 2015 Bonds from proceeds of the Series 2015 Bonds set aside by the Board of Liquidation for this purpose.

(e) Provide for the payment of bond insurance should it be available and cost effective.

The amounts of the deposits set forth above shall be set forth in the Certificate of Determination executed at the time of sale of the Series 2015 Bonds.

ARTICLE V SALE OF SERIES 2015 BONDS

SECTION 5.01. Sale of Series 2015 Bonds. The Series 2015 Bonds shall be sold for and on behalf of the Board and the City by the Board of Liquidation at a private or public sale in accordance with the provisions of the Act. The Board of Liquidation may determine to sell less than all of the Series 2015 Bonds authorized herein. The President, President *pro tempore* and the Executive Director of the Board are each hereby authorized to execute any and all instruments, certificates, documents, and papers relating to the issuance, sale and delivery of the Series 2015 Bonds, in connection with the sale of the Series 2015 Bonds in such form as may be approved by said officers upon the advice of Bond Counsel.

SECTION 5.02. Certificate of Determination. Certain details of the Series 2015 Bonds (which shall be established in accordance with the parameters set forth in Section 2.01 hereof) shall be established by the Certificate of Determination contemporaneously with the execution and delivery by the Board and the Board of Liquidation of the hereinafter defined Bond Purchase Agreement. Each and every such determination set forth in the Certificate of Determination shall be deemed conclusive for all purposes. The Certificate of Determination shall be substantially in the form set forth in Exhibit B hereto, with such variations, omissions and insertions as are permitted or required by this Second Supplemental Resolution.

Subject to the parameters set forth herein and Resolution R-119-2015 adopted by the Board on June 17, 2015, any two of the Executive Director, President or President *pro tempore* are hereby authorized to determine, upon the advice of the Financial Advisor to the City and after consultation with and concurrence of Bond Counsel and the Board of Liquidation:

- (a) The principal amount of the Series 2015 Bonds;
- (b) The purchase price of the Series 2015 Bonds;
- (c) The maturity schedule of the Series 2015 Bonds;
- (d) The optional redemption provisions of the Series 2015 Bonds;
- (e) The mandatory sinking fund redemption schedule, if any, of the Series 2015 Bonds;
- (f) The interest rates on the Series 2015 Bonds;
- (g) The application of proceeds of the Series 2015 Bonds; and.
- (h) any other matters or provisions related to the Series 2015 Bonds, including any change necessitated by the pricing of the Series 2015 Bonds, in each case in accordance or not inconsistent with the provisions of the General Resolution or this Second Supplemental Resolution.

The Board shall deliver the executed Certificate of Determination to the Board of Liquidation as soon as possible after the execution of the Bond Purchase Agreement.

SECTION 5.03. Approval of Preliminary Official Statement, Official Statement, Purchase Agreement and Other Documents.

(a) (a) In connection with the issuance and sale of the Series 2015 Bonds, there have been prepared and submitted at this meeting forms of:

- (i) the Preliminary Official Statement (the "Preliminary Official Statement") used in connection with the marketing of the Series 2015 Bonds;
- (ii) a draft of the final Official Statement (the "Official Statement") to be used in connection with the sale of the Series 2015 Bonds;
- (iii) the Bond Purchase Agreement in connection with the sale of the Series 2015 Bonds; and
- (iv) the Continuing Disclosure Certificate.

(b) The Preliminary Official Statement in the form presented to this meeting and made a part hereof as though set forth in full herein, be and the same is hereby approved and its use by the Underwriters in connection with the public offering and marketing of the Series 2015 Bonds is hereby ratified.

(c) The Official Statement in substantially the form presented to this meeting and made a part hereof as though set forth in full herein, be and the same is hereby approved and its use by the Underwriters in connection with the public offering and sale of the Series 2015 Bonds with such changes, insertions and omissions as may be approved by the Executive Director, President and/or President *pro tempore* is hereby approved.

(d) The Continuing Disclosure Certificate in substantially the form submitted to this meeting and made parts hereof as though set forth in full herein, be and the same are hereby approved. The Executive Director of the Board is hereby authorized and directed to execute and deliver the Continuing Disclosure Certificate with such changes, insertions and omissions as they may approve, said execution being conclusive evidence of such approval.

SECTION 5.04. Authorized Officers. The Executive Director and the President and the President *pro tempore*, acting singly, be and each of them hereby is authorized and directed to execute and deliver any and all documents and instruments and to do and cause to be done any and all acts and things necessary or proper for carrying out the transactions contemplated by the General Bond Resolution, the Official Statement, the Bond Purchase Agreement and the Continuing Disclosure Certificate.

ARTICLE VI
EXECUTION AND DELIVERY OF SERIES 2015 BONDS

SECTION 6.01. Execution/Delivery. The President *pro tempore* of this Board, the Mayor of the City and the President and Secretary of the Board of Liquidation are authorized to sign and deliver the Series 2015 Bonds in the form set forth in Exhibit A hereto, including any changes, additions and deletions thereto approved by bond counsel, in definitive form, as printed bonds, and to execute and deliver any and all additional proofs, instruments and certificates required by or provided for in the General Resolution, this Second Supplemental Resolution, or the Series 2015 Bonds, and perform such other acts as may otherwise be required to effectuate the financing herein provided for. All of the signatures authorized hereinabove as so executed shall be deemed conclusive evidence of the due exercise of the authority vested in each such officer hereunder, and shall be sufficient to create binding obligations of the Board, the City and the Board of Liquidation. All such signatures may be facsimiles thereof, so long as the signature of the Paying Agent is manually executed.

ARTICLE VII MISCELLANEOUS PROVISIONS

SECTION 7.01. Selection of Paying Agent. The Board hereby designates Whitney Bank, Baton Rouge, Louisiana, to serve as Paying Agent for the Series 2015 Bonds. The Paying Agent shall signify in writing its acceptance of its duties under this Second Supplemental Resolution at or prior to the delivery of the Series 2015 Bonds.

SECTION 7.02. Effect of Partial Invalidity. In case any one or more of the provisions of the General Resolution or this Second Supplemental Resolution shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect other provisions of the General Resolution or this Second Supplemental Resolution, but the General Resolution and this Second Supplemental Resolution shall be construed and enforced as if such illegal or invalid provisions had not been contained therein.

SECTION 7.03. Effect of Covenants. All covenants, stipulations, obligations and agreements of the Board contained in this Second Supplemental Resolution shall be deemed to be covenants, stipulations, obligations and agreements of the Board to the full extent permitted by the Constitution and laws of the State of Louisiana.

SECTION 7.04. Disclosure Under S.E.C. Rule 15c2-12. The Executive Director of the Board is hereby empowered and directed to execute an appropriate Continuing Disclosure Certificate (substantially in the form set forth in the official statement issued in connection with the sale and issuance of the Series 2015A Bonds) pursuant to S.E.C. Rule 15c2-12(b)(5).

SECTION 7.05. Arbitrage. The Board covenants and agrees that, to the extent permitted by the laws of the State of Louisiana, it will comply with the requirements of the Internal Revenue Code of 1986 and any amendment thereto (the "Code") in order to establish, maintain and preserve the exclusion from "gross income" of interest on the Series 2015 Bonds under the Code. The Issuer further covenants and agrees that it will not take any action, fail to take any action, or permit any action within its control to be taken, or permit at any time or times any of the proceeds of the Series 2015 Bonds or any other funds of the Board to be used directly or indirectly in any manner, the effect of which would be to cause the Series Bonds to be "arbitrage bonds" or would result in the inclusion of the interest on any of the Series 2015 Bonds in gross income under the Code, including, without limitation, (i) the failure to comply with the limitation on investment of Series 2015 Bond proceeds or (ii) the failure to pay any required rebate of arbitrage earnings to the United States of America or (iii) the use of the proceeds of the Series 2015 Bonds in a manner which would cause the Bonds to be "private activity bonds".

The Executive Director, President and President *pro tempore* are hereby empowered, authorized and directed to take any and all action and to execute and deliver any instrument, document or certificate necessary to effectuate the purposes of this Section.

SECTION 7.06. Section Headings. The headings of the various Sections hereof are inserted for convenience of reference only and shall not control or affect the meaning or construction of any of the provisions hereof.

SECTION 7.07. Conflicts. All resolutions and orders or parts thereof in conflict herewith as they are applicable to the Series 2015 Bonds, to the extent of such conflict and only with respect to their applicability to the Series 2015 Bonds, shall be superseded by the applicable provisions of this Second Supplemental Resolution.

SECTION 7.08. Publication. A copy of this Second Supplemental Resolution shall be published as soon as practicable after its adoption in one issue of the official journal of the City, and it shall not be necessary to publish the exhibits hereto if the exhibits are made available for public inspection at reasonable times and that fact is stated in the publication. For a period of thirty (30) days from the date of publication, any person in interest may contest the legality of this Second Supplemental Resolution and of any provision hereof made for the security and payment of the Series 2015 Bonds. After the expiration of said thirty (30) days, no one shall have any cause or right of action to test the regularity, formality, legality or effectiveness of this Second Supplemental Resolution and the provisions hereof or of the Series 2015 Bonds for any cause whatsoever. If no suit, action, or proceeding is begun contesting the validity of the Series 2015 Bonds within the thirty days, the authority to issue the bonds and to provide for the payment thereof, and the legality thereof and of all of this Second Supplemental Resolution shall be conclusively presumed, and no court shall thereafter have authority to inquire into such matters.

ARTICLE VIII REQUEST FOR APPROVALS

SECTION 8.01. Request to the Board of Liquidation, City Debt, for the Sale and Delivery of the Series 2015 Bonds. The Board of Liquidation is hereby requested to cause the Series 2015 Bonds to be sold, executed and delivered to the purchaser thereof upon receipt of the purchase price thereof and accrued interest, if any, to the date of delivery.

SECTION 8.02. Direction to Deliver Documents to the Board of Liquidation. The Executive Director of the Board is hereby directed to deliver to the Board of Liquidation, as soon as such documents are available, the documents specified in Section 4.03 of the General Resolution with respect to the Series 2015 Bonds.

SECTION 8.03. Request for Approval. A certified copy of this resolution shall be furnished to the City Council of the City. The Board hereby requests the Council of the City and the Board of Liquidation to approve this Second Supplemental Resolution and any other resolutions of the Board providing for the issuance of the Series 2015 Bonds, if required by law.

SECTION 8.04. State Bond Commission Swap Policy. The Bonds were approved by the Louisiana State Bond Commission on October 15, 2015. By virtue of the Board's application for, acceptance and utilization of the benefits of the Louisiana State Bond Commission's approval resolved and set forth herein, it resolves that it understands and agrees that such approval is expressly conditioned upon, and it further resolves that it understands, agrees and binds itself, its successors and assigns to, full and continuing compliance with the "State Bond Commission Policy on Approval of Proposed Use of Swaps, or other forms of Derivative Products Hedges, Etc., adopted by the Commission on July 20, 2006, as to the borrowing and other matters subject to the approval, including subsequent application and approval under said Policy of the implementation or use of any swaps or other products or enhancements covered thereby.

SECTION 8.05. Implementation of Rate Increases. The Board acknowledges and agrees that the Series 2015 Bonds are being issued in anticipation of and in reliance on rate increases approved by the Board, the Board of Liquidation and the City Council of the City through the year 2020, and timely implementation of such rate increases as heretofore adopted constitutes a contract with Bondholders.

SECTION 8.06. Effective Date. This Second Supplemental Resolution shall become effective immediately.

This resolution having been submitted to a vote, the vote thereon was as follows:

<u>Member</u>	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>	<u>Abstaining</u>
Suchitra Satpathi (for Mitchell J. Landrieu)	<hr/>	<hr/>	<hr/>	<hr/>
William Raymond Manning	<hr/>	<hr/>	<hr/>	<hr/>
Marion B. Bracy	<hr/>	<hr/>	<hr/>	<hr/>
Kerri T. Kane	<hr/>	<hr/>	<hr/>	<hr/>
Scott Jacobs	<hr/>	<hr/>	<hr/>	<hr/>
Robin Barnes	<hr/>	<hr/>	<hr/>	<hr/>
Tamika Duplessis, Ph.D.	<hr/>	<hr/>	<hr/>	<hr/>
Kimberly Thomas, JD	<hr/>	<hr/>	<hr/>	<hr/>
Joseph Peychaud	<hr/>	<hr/>	<hr/>	<hr/>
Alan C. Arnold	<hr/>	<hr/>	<hr/>	<hr/>

And the resolution was declared adopted on this 21st day of October, 2015.

EXHIBIT A
TO SECOND SUPPLEMENTAL RESOLUTION

FORM OF BOND

Unless this Bond is presented by an authorized representative of the Depository Trust Company, a New York corporation ("DTC"), to the Board or the City or their agent for registration of transfer, exchange, or payment, and any Bond issued is registered in the name of CEDE & CO. or in such other name as is requested by an authorized representative of DTC (and any payment is made to CEDE & CO. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, CEDE & CO., has an interest herein.

As provided in the Resolution referred to herein, until the termination of the system of book-entry-only transfers through DTC and notwithstanding any other provision of the Resolution (herein defined) to the contrary, this Bond may be transferred, in whole but not in part, only to a nominee of DTC, or by a nominee of DTC to DTC or a nominee of DTC, or by DTC or a nominee of DTC to any successor securities depository or any nominee thereof.

No. R-_____

Principal Amount: \$_____

UNITED STATES OF AMERICA
STATE OF LOUISIANA
PARISH OF ORLEANS

CITY OF NEW ORLEANS, LOUISIANA
SEWERAGE SERVICE REVENUE BOND, SERIES 2015

<u>Maturity Date</u>	<u>Interest Rate</u>	<u>Bond Date</u>	<u>CUSIP</u>
June 1, _____	_____	_____	_____

PRINCIPAL AMOUNT: _____ DOLLARS

The CITY OF NEW ORLEANS, LOUISIANA (the "City"), for value received, promises to pay, but only from the sources and as hereinafter provided, to

REGISTERED OWNER: CEDE & CO. (Tax Identification #13-2555119)

or registered assigns, on the Maturity Date set forth above, the Principal Amount set forth above, together with interest thereon from the Bond Date set forth above or the most recent interest payment date to which interest has been paid or duly provided for, payable on June 1 and December 1 of each year, commencing June 1, 2016 (each an "Interest Payment Date"), at the

Interest Rate per annum set forth above until said Principal Amount is paid, unless this Bond shall have been previously called for redemption and payment shall have been duly made or provided for. The principal of this Bond, upon maturity or redemption, is payable at the principal corporate trust office of Whitney Bank, Baton Rouge, Louisiana, or successor thereto (the "Paying Agent") upon presentation and surrender hereof, and interest on this Bond will be payable by the Paying Agent by check mailed by the Paying Agent to the registered owner (determined as of the close of business on the 15th calendar day of the month next preceding said Interest Payment Date (the "Record Date"), whether or not such day is a business Day (as defined in the Resolution) at the address as shown on the registration books of the Paying Agent. Interest on this Bond shall be calculated on the basis of a 360-day year consisting of twelve 30-day months.

During any period after the initial delivery of the Bonds in book-entry-only form when the Bonds are delivered in multiple certificates form, upon request of a registered owner of at least \$1,000,000 in principal amount of Bonds outstanding, all payments of principal, premium, if any, and interest on the Bonds will be paid by wire transfer in immediately available funds to an account designated by such registered owner; CUSIP number identification with appropriate dollar amounts for each CUSIP number must accompany all payments of principal, premium, and interest, whether by check or by wire transfer.

FOR SO LONG AS THIS BOND IS HELD IN BOOK-ENTRY FORM REGISTERED IN THE NAME OF CEDE & CO. ON THE REGISTRATION BOOKS OF THE CITY KEPT BY THE PAYING AGENT, AS BOND REGISTRAR, THIS BOND, IF CALLED FOR PARTIAL REDEMPTION IN ACCORDANCE WITH THE BOND RESOLUTION, SHALL BECOME DUE AND PAYABLE ON THE REDEMPTION DATE DESIGNATED IN THE NOTICE OF REDEMPTION GIVEN IN ACCORDANCE WITH THE BOND RESOLUTION AT, AND ONLY TO THE EXTENT OF, THE REDEMPTION PRICE, PLUS ACCRUED INTEREST TO THE SPECIFIED REDEMPTION DATE; AND THIS BOND SHALL BE PAID, TO THE EXTENT SO REDEEMED, (i) UPON PRESENTATION AND SURRENDER THEREOF AT THE OFFICE SPECIFIED IN SUCH NOTICE OR (ii) AT THE WRITTEN REQUEST OF CEDE & CO., BY CHECK MAILED TO CEDE & CO. BY THE PAYING AGENT OR BY WIRE TRANSFER TO CEDE & CO. BY THE PAYING AGENT IF CEDE & CO. AS BONDOWNER SO ELECTS. IF, ON THE REDEMPTION DATE, MONEYS FOR THE REDEMPTION OF BONDS OF SUCH MATURITY TO BE REDEEMED, TOGETHER WITH INTEREST TO THE REDEMPTION DATE, SHALL BE HELD BY THE PAYING AGENT SO AS TO BE AVAILABLE THEREFOR ON SUCH DATE, AND AFTER NOTICE OF REDEMPTION SHALL HAVE BEEN GIVEN IN ACCORDANCE WITH THE BOND RESOLUTION, THEN, FROM AND AFTER THE REDEMPTION DATE, THE AGGREGATE PRINCIPAL AMOUNT OF THIS BOND SHALL BE IMMEDIATELY REDUCED BY AN AMOUNT EQUAL TO THE AGGREGATE PRINCIPAL AMOUNT THEREOF SO REDEEMED, NOTWITHSTANDING WHETHER THIS BOND HAS BEEN SURRENDERED TO THE PAYING AGENT FOR CANCELLATION.

This Bond is one of an authorized issue aggregating in principal the sum of _____ Dollars (\$_____) (the "Bonds"), all of like tenor and effect except as to number, denomination, interest rate and maturity, said Bonds having been issued in the name of the City,

acting by and through the Sewerage and Water Board of New Orleans (the "Board"), for the purpose of (i) paying the costs of extensions, improvements, enlargements, betterments, alterations, renewals and replacements to the sewerage system of the City of New Orleans, Louisiana, including land, equipment and other real or personal properties, (ii) funding a debt service reserve fund, and (iii) paying costs of issuance of the Bonds. The Bonds have been issued pursuant to a General Sewerage Service Revenue Bond Resolution adopted by the Board on May 21, 2014 and a Second Supplemental Sewerage Service Bond Resolution adopted by the Board on October 21, 2015, and by a resolution adopted by the Board of Liquidation, City Debt (the "Board of Liquidation") on _____, 2015 (collectively, the "Resolution"), under the authority conferred by Section 4121 of Title 33 of the Louisiana Revised Statutes of 1950, as amended (the "Act"), and other constitutional and statutory authority. This Bond and the issue of which it forms a part are payable as to both principal and interest solely from the Net Revenues and other funds of the Board pledged for that purpose by the Resolution. Subject to the foregoing, this Bond and the issue of which it forms a part are issued on a complete parity with the Issuer's outstanding Sewerage Service Revenue Bonds, Series 2011 and Sewerage Service Revenue and Refunding Bonds, Series 2014 (collectively, the "Outstanding Parity Bonds"), with respect to the revenues derived from sewerage service charges and other funds pledged by the Resolution for the payment and security of the Bonds and the Outstanding Parity Bonds.

The Bonds, equally with the Outstanding Parity Bonds and such additional bonds as may hereafter be issued under the Resolution on a parity therewith are, and are to be, equally and ratably secured by the pledge of the revenues derived from sewerage service charges of the City, for purposes relating to the sewerage system of the City, as provided in the Act and the Resolution, to which reference is hereby made for a more complete description of the rights of the owners of the Bonds and of the Board with respect to the sewerage system of the City, and the revenues thereof, and the terms and conditions upon which the Bonds and such additional parity bonds are, and are to be, issued, to all of the provisions of which Resolution each Bond owner, by acceptance hereof, assents. This Bond and the issue of which it forms a part do not constitute a debt of the City, and neither the credit nor the taxing power of the City is pledged to the payment thereof, or any part thereof, or to the payment of any interest thereon.

Pursuant to the Act, the Board of Liquidation, as now organized and created and with the powers, duties and functions prescribed by existing laws, shall be continued while any bonds authorized by the aforesaid provisions of law are outstanding and unpaid; and all sewer revenues which may be collected for the payment of said Bonds shall, be paid over to said Board of Liquidation, and shall by it be applied in payment of the principal of and interest on said Bonds; and said Board of Liquidation shall, with respect to all Bonds authorized, be entitled to exercise all the rights and enforce the performance of all the obligations, the same as it is authorized to do under existing laws with respect to any of the registered outstanding Bonds of the Board. Each Bond of this issue constitutes a contract between the City, the Board, the Board of Liquidation, and the Registered Owner of such Bond.

Those Bonds maturing June 1, 20__ and thereafter shall be subject to redemption at the option of the Board of Liquidation in full or in part at any time on after June 1, 20__, at a redemption price equal to 100% of the principal amount of the Series 2015 Bonds to be

redeemed, together with accrued interest to the date fixed for redemption. The maturities of the Bonds to be redeemed shall be selected by the Board of Liquidation in its discretion.

In the event of redemption of fewer than all the outstanding Bonds of like maturity, such Bonds shall be redeemed by lot or in such other manner as shall be deemed fair and equitable by the Paying Agent for random selection.

Optional redemption of the Series 2015 Bonds shall be applied ratably, as nearly as possible, against each of the mandatory sinking fund requirements set forth below.

The Bonds due on June 1, 20__, shall be subject to mandatory redemption prior to maturity through application of sinking fund payments on June 1 in each of the years and in the respective principal amounts set forth below, in each case at a redemption price equal to 100 of their principal amount, plus accrued interest to the date of redemption.

<u>Year</u> <u>(June 1)</u>	<u>Amount</u>
20__	\$ ____
20__	____
20__	____
20__	____
20__ *	____

*Final maturity

In the event a Bond is of a denomination larger than \$5,000, a portion of such Bond (\$5,000 or any multiple thereof) may be redeemed. Official notice of such call of any of the Bonds for redemption will be given by first class mail, postage prepaid, by notice deposited in the United States mails not less than thirty (30) days prior to the redemption date addressed to the registered owner of each Bond to be redeemed at his address as shown on the registration books of the Paying Agent.

There shall be kept at the principal corporate trust office of the Paying Agent a register (the "Bond Register") in which registration of the Bonds shall be made as provided herein. This Bond is transferable only upon the records kept for that purpose at the principal corporate trust office of the Paying Agent by the person in whose name this Bond is registered (the "Registered Owner") or by his or her attorney duly authorized in writing, upon surrender hereof together with a written instrument of transfer satisfactory to the Paying Agent duly executed by the Registered Owner or such duly authorized attorney, and thereupon the Paying Agent shall issue in the name of the transferee a new fully registered Bond or Bonds of the same aggregate principal amount and designation, maturity and interest rate as the surrendered Bond, and upon the payment of the costs of any transfer taxes or other governmental charges relating thereto. The Board of Liquidation and the Paying Agent may treat and consider the person in whose name this Bond is registered as the absolute owner hereof for the purpose of receiving payment of or on account of the principal hereof and interest and premium, if any, hereon, and for all other purposes whatsoever. Neither the Board of Liquidation nor the Paying Agent shall be required to issue, register the transfer of, or exchange (i) any Bond during a period beginning at the opening of

business on the 15th day of the month next preceding any interest payment date and ending at the close of business on the interest payment date, or (ii) any Bond called for redemption prior to maturity during the period of fifteen (15) days after the mailing of notice of redemption as provided herein, but only with respect to those Bonds which are the subject of such redemption

This Bond and the series of which it forms a part are issuable in the form of fully registered bonds of the denomination of \$5,000 each or any integral multiple thereof. Subject to the conditions and upon the payment of the costs of any transfer taxes or other governmental charges relating to the transfer of this Bond upon surrender hereof at the principal corporate trust office of the Paying Agent with a written instrument of transfer satisfactory to the Paying Agent duly executed by the Registered Owner or by his attorney duly authorized in writing, this Board may at the option of the Registered Owner hereof be exchanged for an equal aggregate principal amount of fully registered bonds of the same designation, maturity and interest rate and of any authorized denomination.

For a more complete statement of the source of moneys from which and conditions under which this Bond is payable, a statement of the conditions under which additional Bonds may hereafter be issued on a parity with the Bonds, and the general covenants and provisions pursuant to which this Bond is issued, and the conditions under which the pledges and covenants of the City, the Board and the Board of Liquidation may be discharged and this Bond no longer be deemed outstanding, reference is hereby made to the Resolution. This Bond and the issue of which it forms a part do not constitute a debt of the City, but are payable as to principal and interest, solely out of the Net Revenues of the Board pledged for that purpose.

This Bond shall not be valid or become obligatory for any purpose or be entitled to any security or benefit under the Resolution (herein defined) until the certificate of registration hereon shall have been signed by the Paying Agent.

It is hereby certified, recited and declared that all acts, conditions and things required by the Constitution and laws of the State of Louisiana to exist, to have happened and to have been performed precedent to and in the issuance of this Bond do exist, have happened and have been performed in regular and due time form and manner as prescribed by law, and the amount of this Bond and the issue of which it forms a part, together with all other obligations or indebtedness of the City and the Board, does not exceed any constitutional, statutory or other limitation of indebtedness.

IN WITNESS WHEREOF, the City of New Orleans, Louisiana has caused this Bond to be executed in its name by the facsimile signatures of its Mayor, the President *pro tempore* of the Sewerage and Water Board of New Orleans, and the President and Secretary of the Board of Liquidation, City Debt, and a facsimile of its corporate seal to be imprinted hereon.

CITY OF NEW ORLEANS, LOUISIANA

By: _____ By: _____
President, Mayor,
Board of Liquidation, City Debt City of New Orleans, Louisiana

By: _____ By: _____
Secretary, President, *pro tempore*,
Board of Liquidation, City Debt Sewerage and Water Board of New Orleans

[SEAL]

* * * * *

PAYING AGENT'S CERTIFICATE OF REGISTRATION

This Bond is one of the Bonds referred to in the within-mentioned Resolution.

WHITNEY BANK,
as Paying Agent

Date of Registration: _____ By: _____
Authorized Officer

* * * * *

LEGAL OPINION CERTIFICATE

I, the undersigned Secretary of the Board of Liquidation, City Debt, do hereby certify that the following is a true copy of the complete joint legal opinion of Foley & Judell, L.L.P. Haley Law Firm, LLC and McKee Law Firm, LLC, Co-Bond Counsel, the original of which was manually executed, dated and issued as of the date of payment for and delivery of this Bond and was delivered to _____, representing the original purchasers thereof:

[Insert Legal Opinion]

I further certify that an executed copy of the above legal opinion is on file in my office, and that an executed copy thereof has been furnished to the Paying Agent for this Bond.

Secretary
Board of Liquidation, City Debt

* * * * *

FORM OF ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto _____

Please Insert Social Security
or other Identifying Number of Assignee

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints _____

attorney or agent to transfer the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated: _____

NOTICE: The signature to this assignment must correspond with the name as it appears upon the face of the within Bond in every particular, without alteration or enlargement or any change whatever.

* * * * *

EXHIBIT B
TO SECOND SUPPLEMENTAL RESOLUTION

FORM OF CERTIFICATE OF DETERMINATION

NOT TO EXCEED \$100,000,000

CITY OF NEW ORLEANS, LOUISIANA
SEWERAGE SERVICE REVENUE BONDS
2015 SERIES A

We, the undersigned representatives of the Sewerage and Water Board of New Orleans (the "Board"), pursuant to the General Sewerage Service Bond Resolution adopted by the Board on May 21, 2014 and the Second Supplemental Sewerage Service Revenue Bond Resolution adopted by the Board on October 21, 2015 (collectively, the "Resolution"), do hereby certify and determine, on behalf of the Board, with respect to the sale of the above captioned bonds (the "Bonds") to _____, as representative of the underwriters (the "Underwriter"), as follows:

1. **Defined Terms.** Terms not otherwise defined in this Certificate of Determination shall have the same meanings as set forth in the Resolution unless the context otherwise requires.
2. **Principal Amount.** The principal amount of the Bonds is _____.
3. **Purchase Price.** The Bonds were sold at a price of \$_____, representing \$_____ principal amount, plus original issue premium of \$_____, less underwriting discount of \$_____.
4. **Maturity Schedule and Interest Rates*.** The Bonds shall mature on June 1 of each year in the principal amounts and shall bear interest at the rates (not to exceed 7.0%) as follows:

Year (June 1)	Principal Amount*	Interest Rate	Year (June 1)	Principal Amount*	Interest Rate
2016	\$ _____	____. ____ %	2031	_____	____. ____ %
2017	_____	____. ____ %	2032	_____	____. ____ %
2018	_____	____. ____ %	2033	_____	____. ____ %
2019	_____	____. ____ %	2034	_____	____. ____ %
2020	_____	____. ____ %	2035	_____	____. ____ %
2021	_____	____. ____ %	2036	_____	____. ____ %
2022	_____	____. ____ %	2037	_____	____. ____ %
2023	_____	____. ____ %	2038	_____	____. ____ %
2024	_____	____. ____ %	2039	_____	____. ____ %
2025	_____	____. ____ %	2040	_____	____. ____ %
2026	_____	____. ____ %	2041	_____	____. ____ %
2027	_____	____. ____ %	2042	_____	____. ____ %
2028	_____	____. ____ %	2043	_____	____. ____ %
2029	_____	____. ____ %	2044	_____	____. ____ %
2030	_____	____. ____ %	2045	_____	____. ____ %

***Such principal amounts are preliminary and are subject to change depending on market conditions existing on the date of sale. [However, such amounts will not change by more than is necessary to fund the deposits referred to in Paragraph 6 and in particular, fund a deposit to the Construction Fund (net of Capitalized Interest) in an amount not to exceed \$100,000,000, subject to a 10% positive or negative variation].**

Term Bonds Option: At pricing, the Board of Liquidation may designate the principal amounts of the Bonds maturing on and after June 1, 2025 as Term Bonds, and any such Term Bonds will have a stated maturity amount equal to the sum of the annual principal amounts designated as a part of such term maturity. Only one term maturity may be subject to mandatory sinking fund redemption in any year. Upon such designation, the Bonds of such term maturity shall be subject to mandatory sinking fund redemption in part by lot on June 1, such that the principal amount subject to mandatory sinking fund redemption matches the principal amounts set forth in the table above, adjusted as permitted by this Certificate, and equals the principal amount of such Term Bond. Such sinking fund redemptions shall be in the principal amounts, adjusted as permitted by this Certificate, which would otherwise have matured sequentially in such designated years, at the price of par plus accrued interest to the redemption date, without premium.

Furthermore, if the Board of Liquidation, after consultation with the Sewerage and Water Board, determines in its sole discretion that the funds necessary to accomplish the purposes for issuance, as herein described, are either more or less than the proceeds of the sale of all of the Bonds, the Board of Liquidation and the Sewerage and Water Board reserve the right either to increase or decrease the principal amount of any maturity of the Bonds (to be rounded to the nearest \$5,000), provided that any such increase shall not, in the aggregate, cause the total amount of Bonds to exceed the maximum principal amount of \$100,000,000 authorized by the Sewerage and Water Board.

5. **Optional Redemption.** Those Bonds maturing June 1, 20__ and thereafter shall be subject to redemption at the option of the Board of Liquidation in full or in part at any time on or after June 1, 20__, at a redemption price equal to 100% of the principal amount of the Series 2015 Bonds to be redeemed, together with accrued interest to the date fixed for redemption. The maturities of the Bonds to be redeemed shall be selected by the Board of Liquidation in its discretion.

6. **Use of Proceeds.** The proceeds of the Bonds in the amount of \$_____, plus additional monies of the Board in the amount of \$_____, shall be disbursed as follows:

(a) \$_____ shall be deposited in the Series 2015 Account of the Construction Fund; of such amount, \$_____ shall be used to pay Project costs;

(b) \$_____ shall be deposited to the Debt Service Reserve Fund;

(c) \$_____ shall be deposited in the Capitalized Interest Fund; and

(d) \$_____ shall be used to pay Costs of Issuance.

Preliminary; subject to change.

IN WITNESS WHEREOF, witness our signatures on this _____ day of _____, 2015.

SEWERAGE AND WATER BOARD OF
NEW ORLEANS

By: _____
Title: Executive Director

By: _____
Title: President *pro tempore*

STATE OF LOUISIANA

PARISH OF ORLEANS

I, the undersigned Executive Director of the Sewerage and Water Board of New Orleans (the "Board"), do hereby certify that the foregoing pages constitute a true and correct copy of a Second Supplemental Sewerage Service Revenue Bond Resolution adopted by the Board on October 21, 2015, setting forth certain details in connection with the issuance of not exceeding One Hundred Million Dollars (\$100,000,000) of Sewerage Service Revenue Bonds, Series 2015; authorizing the execution of a Bond Purchase Agreement and a Certificate of Determination; and providing for other matters relating to the foregoing.

IN FAITH WHEREOF, witness my official signature on this, the 21st day of October, 2015.

Executive Director



1031 S. Caldwell Street
Suite 100
Charlotte, NC 28203

Phone 704 . 373 . 1199
Fax 704 . 373 . 1113

www.raftelis.com

October 6, 2015

Mr. Robert Miller
Deputy Director
Sewerage and Water Board of New Orleans
625 St. Joseph St.
New Orleans, LA 70165

The Sewerage and Water Board of New Orleans (Board) has an extensive capital program, which it anticipates primarily funding through revenue bonds. The Board issued debt for its water, sewerage, and drainage systems in 2014 under new General Bond Resolutions. In order to issue additional Water System and Sewerage System debt in 2015, the Board must satisfy the additional bonds test under the General Bond Resolution for each system. As such, the Board requested Raftelis Financial Consultants, Inc. (RFC) to prepare the additional bonds tests.

The additional bonds test in the General Bond Resolution for water and sewerage are essentially the same. Under the General Bond Resolutions, the Board may issue additional bonds only if one of the two requirements, or tests, set forth in Section 4.03(h) are met. The requirements for the tests are below.

A certificate of (A) a Qualified Independent Consultant, stating that based on the Board's financial records for a Test Period, the Board would have been able to meet the Rate Covenant in Section 7.01, taking into account (i) the maximum Annual Debt Service on the proposed Series of Additional Bonds in the current or any future Fiscal Year, (ii) the Additional Net Revenues from the rates, fees and other charges adjusted to reflect any rate increases that had not been in effect throughout the Test Period but that have been approved by the Board, the Board of Liquidation, and the City at the time of the delivery of the proposed Series of Additional Bonds to go into effect within the following five years; and (iii) additional Net Revenues that the Board may realize from the addition to the System of the assets it proposes to finance through the issuance of the proposed Series of Additional Bonds or other funding sources within the following five years or (B) the Authorized Officer of the Board stating that based on the Board's financial records for a Test Period, the Board would have been able to meet the Rate Covenant in Section 7.01, taking into account the maximum annual Debt Service on the proposed Series of Additional Bonds. In making the certifications required under this paragraph, the Qualified Independent Consultant, as applicable, shall determine and utilize the Additional Indebtedness Test Net Revenues in place of the Rate Covenant Net Revenues in determining whether the Board would have been able to meet the Rate Covenant in Section 7.01.

RFC has prepared tests for the Water System (Table 1) and the Sewer System (Table 2). The revenues and expenses are from the audited 2014 financial results. The first column, Test A, shows the adjusted actual revenues along with the actual O&M expenses. The revenues have been adjusted by applying the approved rate increases for five years, including the increase that became effective January 1, 2015. These increases were applied to the Sales of Water and the Sewerage Service Charges. The second column, Test B, shows the actual revenues and uses the actual net O&M from the first column.

Table 1 – Additional Bonds Test for the Water System

	Adjusted Actual (1) - Test A	Actual (FY 14) - Test B
Sales of Water and Delinquent Fees (2)	\$ 111,891,745	\$ 70,818,255
Other Operating Revenue	3,180,286	3,180,286
	\$ 115,072,031	\$ 73,998,541
Total O&M	\$ 88,562,278	
Less: Depreciation	18,844,752	
Less: Provision for doubtful accounts	1,151,767	
Net O&M	\$ 68,565,759	\$ 68,565,759
Additional Indebtedness Test Net Revenues	\$ 46,506,272	\$ 5,432,782
Maximum Annual Senior Debt Service	\$ 14,946,336	\$ 14,946,336
Maximum Annual Total Debt Service	\$ 14,946,336	\$ 14,946,336
Maximum Annual Senior Debt Service Coverage	3.11	0.36
Required	1.25	1.25
Maximum Annual Total Debt Service Coverage	3.11	0.36
Required	1.10	1.10
Pass (Yes/No)	Yes	No

(1) Assumes five approved 10% rate increases.

(2) Delinquent fees comprise less than 5% of this revenue so only 95% of this line item was adjusted.

Table 2 – Additional Bonds Test for the Sewer System

	Adjusted Actual (1) - Test A	Actual (FY 14) - Test B
Sewerage Service Charges	\$ 139,394,894	\$ 86,553,262
Other Operating Revenue	1,245,296	1,245,296
	\$ 140,640,190	\$ 87,798,558
Total O&M	\$ 63,273,567	
Less: Depreciation	15,005,720	
Less: Provision for doubtful accounts	944,199	
Net O&M	\$ 47,323,648	\$ 47,323,648
Additional Indebtedness Test Net Revenues	\$ 93,316,542	\$ 40,474,910
Maximum Annual Senior Debt Service	\$ 26,322,243	\$ 26,322,243
Maximum Annual Total Debt Service	\$ 26,322,243	\$ 26,322,243
Maximum Annual Senior Debt Service Coverage	3.55	1.54
Required	1.25	1.25
Maximum Annual Total Debt Service Coverage	3.55	1.54
Required	1.10	1.10
Pass (Yes/No)	Yes	Yes

(1) Assumes five approved 10% rate increases.

As can be seen in Table 1 and Table 2, the Board satisfies the additional bonds test as defined in the General Bond Resolutions.

RFC has appreciated the opportunity to assist the Sewerage and Water Board of New Orleans with this analysis.

Very truly yours,



Peiffer A. Brandt
Chief Operating Officer

SEWERAGE AND WATER BOARD OF NEW ORLEANS, LOUISIANA

Financial Feasibility Evaluation of Sewerage System Revenue Bonds, Series 2015



Draft Report

October __, 2015

EVALUATION BY FINANCIAL FEASIBILITY CONSULTANTS
Sewerage and Water Board of New Orleans, Louisiana
Sewerage System
Revenue Bonds, Series 2015

We have evaluated the accompanying Forecast Statement of Revenues, Expenses, Debt Service, and Debt Service Coverage (the “Forecast Statement”) for the Sewerage and Water Board of New Orleans (the “Board” or “SWBNO”) Sewerage System for the six fiscal years ending December 31, 2015 through December 31, 2020. Our evaluation was conducted in accordance with guidelines for the wastewater industry and included such procedures as we considered necessary to evaluate the assumptions of the Board.

In evaluating the financial feasibility of the project, those assumptions that we believe are most significant include:

- Projected revenues from the approved rate adjustments during the six-year forecast period;
- Projected additional revenues;
- Projected operating costs for providing sewerage services to meet necessary requirements during the forecast period;
- Projected capital improvements; and
- Projected future debt issues and the timing of additional debt service payments in order to meet capital investment needs.

The accompanying Forecast Statement is presented on an accrual basis, and is then adjusted to be consistent with the Board’s budgeting process for the Sewerage System, and the specific requirements of the coverage tests identified in the General Sewerage Service Bond Resolution (“General Bond Resolution”) dated as of May 21, 2014 as supplemented and amended by the Second Supplemental Bond Resolution dated as of October __, 2015. The Forecast Statement, together with the Summary of Significant Forecast Assumptions, which is included as an integral part of the forecast, constitutes the “Feasibility Evaluation” for the proposed capital projects and bond financing.

In our opinion, the accompanying Forecast Statement is presented in conformity with industry guidelines for presentation of a forecast, and the underlying assumptions provide a reasonable basis for the Board’s forecast. Based upon the assumptions in our report, the projected Revenues provide adequate funds to operate the Sewerage System in a sustainable manner, to fund the capital plan, and to maintain the debt service coverage ratios required by the General Bond Resolution during the forecast period for the issuance of the Board’s Sewerage System Revenue Bonds, Series 2015. However, there will usually be differences between the forecast and actual results because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

Raftelis Financial Consultants, Inc.

Charlotte, North Carolina
October __, 2015

By: Peiffer A. Brandt
Chief Operating Officer

Sewerage and Water Board of New Orleans
Proposed Sewerage Revenue Bonds, Series 2015
Forecast Statement of Revenues, Expenses, Debt Service, and Debt Service Coverage

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Revenues						
Operating Revenues						
Sewer Sales (1)	\$ 94,729,026	\$ 104,824,535	\$ 116,436,997	\$ 129,335,888	\$ 143,663,717	\$ 159,578,784
Plumbing inspection & license fees	299,729	326,081	326,081	326,081	326,081	326,081
Subtotal: Sewer Sales and Fees	\$ 95,028,755	\$ 105,150,616	\$ 116,763,078	\$ 129,661,969	\$ 143,989,799	\$ 159,904,865
Other Revenues	\$ 428,190	\$ 597,321	\$ 597,321	\$ 597,321	\$ 597,321	\$ 597,321
Additional Revenue (2)	-	-	-	-	-	-
Total Operating Revenues	\$ 95,456,945	\$ 105,747,937	\$ 117,360,399	\$ 130,259,290	\$ 144,587,119	\$ 160,502,186
Non-Operating Revenue	\$ 470,944	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061
FEMA O&M Expense Reimbursements (3)	-	-	-	-	-	-
Total Non-operating Revenues	\$ 470,944	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061
Total Revenues	\$ 95,927,889	\$ 106,209,998	\$ 117,822,460	\$ 130,721,350	\$ 145,049,180	\$ 160,964,247
Expenses						
Operating Expenses						
O&M Expenditures (4)	\$ 55,868,190	\$ 58,767,884	\$ 62,085,412	\$ 65,790,370	\$ 69,614,354	\$ 71,586,452
Depreciation & Amortization (5)	14,299,824	14,299,824	14,299,824	14,299,824	14,299,824	14,299,824
Provision for Bad Debt (6)	658,922	658,922	658,922	658,922	658,922	658,922
Total Operating Expenses	\$ 70,826,936	\$ 73,726,630	\$ 77,044,158	\$ 80,749,116	\$ 84,573,099	\$ 86,545,198
Net Revenues	\$ 25,100,953	\$ 32,483,368	\$ 40,778,302	\$ 49,972,235	\$ 60,476,081	\$ 74,419,049
Less: Transfers to Rate Stabilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: Transfers from Rate Stabilization	-	-	-	-	-	-
Plus: Depreciation & Amortization	14,299,824	14,299,824	14,299,824	14,299,824	14,299,824	14,299,824
Plus: Provision for Bad Debt	658,922	658,922	658,922	658,922	658,922	658,922
Rate Covenant Net Revenues	\$ 40,059,699	\$ 47,442,114	\$ 55,737,047	\$ 64,930,980	\$ 75,434,826	\$ 89,377,794
Senior Debt Service - 2015 Issue						
Existing Debt Service	\$ 16,392,574	\$ 18,537,050	\$ 19,803,493	\$ 18,137,085	\$ 16,712,010	\$ 16,728,521
Proposed Series 2015 (7)	-	6,519,444	6,518,750	6,519,500	6,516,250	6,519,000
Total Senior Debt Service	\$ 16,392,574	\$ 25,056,495	\$ 26,322,243	\$ 24,656,585	\$ 23,228,260	\$ 23,247,521
Senior Debt Service Coverage - 2015 Issue	2.44	1.89	2.12	2.63	3.25	3.84
Senior Debt Service - Programmatic						
Existing & 2015 Debt Service	16,392,574	25,056,495	26,322,243	24,656,585	23,228,260	23,247,521
Projected Future Bonds (8)	-	-	3,027,437	5,676,445	8,325,452	10,974,460
Total Senior Debt Service	\$ 16,392,574	\$ 25,056,495	\$ 29,349,680	\$ 30,333,030	\$ 31,553,712	\$ 34,221,981
Senior Debt Service Coverage - Programmatic (9)	2.44	1.89	1.90	2.14	2.39	2.61
Total Debt Service Requirements	\$ 16,392,574	\$ 25,056,495	\$ 29,349,680	\$ 30,333,030	\$ 31,553,712	\$ 34,221,981
Total Debt Service Coverage (10)	2.44	1.89	1.90	2.14	2.39	2.61
Rate Covenant Net Revenues	\$ 40,059,699	\$ 47,442,114	\$ 55,737,047	\$ 64,930,980	\$ 75,434,826	\$ 89,377,794
Less: Transfers from Rate Stabilization	-	-	-	-	-	-
Less: Grants	-	-	-	-	-	-
Adjusted Rate Covenant Net Revenues	\$ 40,059,699	\$ 47,442,114	\$ 55,737,047	\$ 64,930,980	\$ 75,434,826	\$ 89,377,794
Total Debt Service Coverage on Adjusted Rate Covenant Net Revenues (11)	2.44	1.89	1.90	2.14	2.39	2.61
Revenue after Debt Service	\$ 23,667,124	\$ 22,385,619	\$ 26,387,367	\$ 34,597,950	\$ 43,881,115	\$ 55,155,814
Less: GO Zone Repayment	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582
Less: Revenue Funded Capital	14,000,000	8,000,000	13,000,000	15,000,000	20,000,000	25,000,000
Less: Repayments	2,911,000	2,911,000	486,000	-	-	-
Total Income/(Deficit)	\$ 522,542	\$ 5,241,037	\$ 6,667,785	\$ 13,364,368	\$ 17,647,532	\$ 23,922,232
Ending Balance of Available Funds	\$ 26,076,922	\$ 31,317,959	\$ 37,985,745	\$ 51,350,113	\$ 68,997,645	\$ 92,919,877
<i>Days of Cash on Hand</i>	170	195	223	285	362	474

- (1) Based on 2015 projected actual revenues with growth, rate increases, and resistance factors. See Explanatory Note 5 for more detail.
- (2) Additional revenue, which was included in the feasibility report for the Series 2014 Bonds, has been incorporated in the Water Sales and Delinquent Fees line item.
- (3) At this point, no FEMA grants are anticipated during the Forecast period.
- (4) Based on the 2015 budget with annual increases. Additional O&M to reach more sustainable O&M levels and efficiency savings which were included in the feasibility report for the Series 2014 Bonds have been incorporated. See Explanatory Note 6 for more detail.
- (5) Based on the average of the last two years in historical schedule. The Board anticipates continuing to collapse Depreciation and Amortization into a single line item going forward.
- (6) Based on the average of the five years in historical schedule.
- (7) Based on preliminary estimates associated with obtaining approximately \$99 million in proceeds.
- (8) Annual bond issues with two years of capitalized interest are expected throughout the forecast period. See Explanatory Note 8 for more detail.
- (9) Rate covenant requires coverage of 1.25 on Senior Debt Service.
- (10) Rate covenant require coverage of 1.10 on Total Debt Service.
- (11) Rate covenant requires coverage of 1.00 on Total Debt Service after excluding certain revenues including FEMA O&M expense reimbursement grants.

Sewerage and Water Board of New Orleans
Proposed Sewerage Revenue Bonds, Series 2015
Historical Statement of Revenues, Expenses, Debt Service, and Debt Service Coverage (1)

	<i>Fiscal Year</i>					
	2009	2010	2011	2012	2013	2014
Revenues						
Operating Revenues						
Sewer Sales	\$ 66,102,946	\$ 69,534,779	\$ 70,358,076	\$ 71,407,835	\$ 78,535,785	\$ 86,553,262
Plumbing inspection & license fees	242,224	373,213	379,036	343,903	321,518	339,176
Subtotal: Sewer Sales and Fees	\$ 66,345,170	\$ 69,907,992	\$ 70,737,112	\$ 71,751,738	\$ 78,857,303	\$ 86,892,438
Other Revenues	\$ 388,528	\$ 260,785	\$ 3,044,483	\$ 288,943	\$ 766,030	\$ 906,120
Additional Revenue						
Total Operating Revenues	\$ 66,733,698	\$ 70,168,777	\$ 73,781,595	\$ 72,040,681	\$ 79,623,333	\$ 87,798,558
Non-Operating Revenue	\$ 499,506	\$ 14,756,175	\$ 427,166	\$ 350,944	\$ 451,435	\$ 574,919
O&M Expense Reimbursements	2,772,395	2,957,463	(35,272)	7,463	5,367	383,354
Total Non-operating Revenues	\$ 3,271,901	\$ 17,713,638	\$ 391,894	\$ 358,407	\$ 456,802	\$ 958,273
Total Revenues	\$ 70,005,599	\$ 87,882,415	\$ 74,173,489	\$ 72,399,088	\$ 80,080,135	\$ 88,756,831
Expenses						
Operating Expenses						
O&M Expenditures	\$ 49,879,872	\$ 44,361,297	\$ 43,173,641	\$ 44,869,796	\$ 45,378,129	\$ 46,758,426
Depreciation & Amortization	9,669,386	10,112,927	10,042,062	14,504,047	13,389,705	15,005,720
Provision for Bad Debts	(2,550,372)	1,801,499	(801,413)	525,961	824,362	944,199
Provision for Claims						565,222
Total Operating Expenses	\$ 56,998,886	\$ 56,275,723	\$ 52,414,290	\$ 59,899,804	\$ 59,592,196	\$ 63,273,567
Net Revenues	\$ 13,006,713	\$ 31,606,692	\$ 21,759,199	\$ 12,499,284	\$ 20,487,939	\$ 25,483,264
Less: Transfers to Rate Stabilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: Transfers from Rate Stabilization	-	-	-	-	-	-
Plus: Depreciation & Amortization	9,669,386	10,112,927	10,042,062	14,504,047	13,389,705	15,005,720
Plus: Provision for Bad Debts	(2,550,372)	1,801,499	(801,413)	525,961	824,362	944,199
Rate Covenant Net Revenues	\$ 20,125,727	\$ 43,521,118	\$ 30,999,848	\$ 27,529,292	\$ 34,702,006	\$ 41,433,183
Total Debt Service						
Senior Debt Payment	\$ 20,313,968	\$ 20,250,057	\$ 20,263,432	\$ 20,713,082	\$ 20,726,719	\$ 18,472,037
Total Debt Service	\$ 20,313,968	\$ 20,250,057	\$ 20,263,432	\$ 20,713,082	\$ 20,726,719	\$ 18,472,037
Senior Debt Service Coverage	0.99	2.15	1.53	1.33	1.67	2.24
Rate Covenant Net Revenue after Debt Service	\$ (188,241)	\$ 23,271,061	\$ 10,736,416	\$ 6,816,210	\$ 13,975,287	\$ 22,961,146
Ending Balance of Available Funds (2)	\$ (260,693)	\$ (1,682,636)	\$ 2,083,063	\$ 9,548,524	\$ 22,397,304	\$ 25,554,380
<i>Days of Cash on Hand</i>	(2)	(14)	18	78	180	199

(1) The data for this schedule comes primarily from the Board's Comprehensive Annual Financial Reports (CAFRs).

(2) For 2009 through 2012, the balance was assumed to be the unrestricted and undesignated cash and cash equivalents from the CAFRs, and in 2013 and 2014 the total also included the cash and cash equivalent designated for capital projects, which was not previously segregated in the Board's CAFRs.

SEWERAGE AND WATER BOARD OF NEW ORLEANS SUMMARY OF SIGNIFICANT FORECAST ASSUMPTIONS

**FOR THE SIX FISCAL YEARS ENDING
DECEMBER 31, 2015 THROUGH DECEMBER 31, 2020**

1. Basis of Presentation

Raftelis Financial Consultants, Inc. (“RFC”) has been engaged by the Sewerage and Water Board of New Orleans (the “Board” or “SWBNO”) to evaluate the financial feasibility of proposed improvements to its Sewerage System. The opinion letter to the Board is based upon the Forecast Statement of Revenues, Expenses, Debt Service, and Debt Service Coverage (the “Forecast Statement”) and the Summary of Significant Forecast Assumptions (taken together, the “Feasibility Evaluation”) which presents, to the best of the Board’s knowledge and belief, based upon available information, the expected revenue, expenses, debt service, and debt service coverage for the Board’s Sewerage System during the forecast period.

All schedules in the Feasibility Evaluation have been presented in accordance with the Board’s annual accounting cycle, based upon its fiscal year beginning January 1 and ending December 31 (“Fiscal Year” or “FY”). Accordingly, the forecast reflects the Board’s judgment as of October __, 2015, the date of this forecast, of the expected conditions and the Board’s expected course of action during each of the six fiscal years ending December 31, 2015 through December 31, 2020.

The Feasibility Evaluation has been included as a part of the Official Statement for the Board’s Sewerage System Revenue Bonds, Series 2015 (“Series 2015 Bonds”), which are being issued under the General Sewerage Service Revenue Bond Resolution (“General Bond Resolution”), dated as of May 21, 2014 as supplemented and amended by the Second Supplemental Bond Resolution dated as of October __, 2015. This Feasibility Evaluation focuses on evaluating the impact of the Series 2015 Bonds, the proceeds of which (\$100 million in new money) will be used to finance various improvements to the Board’s Sewerage System. The proceeds from the Series 2015 Bonds will not be sufficient to fund all of the Board’s capital needs during the forecast period. To fund the remaining capital needs of the Sewerage System, the Board plans to annually issue additional revenue bonds and utilize cash generated from user rates and charges.

The Feasibility Evaluation is based upon cost, operating, demographic and other relevant information provided by the Board and the debt service schedules provided to the Board by its Financial Advisor, Public Financial Management, Inc. The Feasibility Evaluation is presented in conformity with the methodology for calculating debt service coverage for Indebtedness set forth in the General Bond Resolution. (The definitions of capitalized terms, not specifically provided in this document, are provided in the General Bond Resolution.)

The General Bond Resolution sets forth a three-part debt service coverage test as part of the Rate Covenant in Section 7.01. The Board shall fix, charge and collect rates, fees, and other charges for the use of and the services furnished or to be furnished by the System, and that from time to time and as often as shall appear necessary, revise such rates, fees, and other charges so as to meet the following three independent requirements: (i) for the Tested Fiscal Year to (A) pay

Annual Debt Service on Senior Debt, (B) deposit the necessary amount in any Series Debt Service Reserve Account, (C) to pay Annual Debt Service on Subordinate Debt (including reserves), (D) deposit the necessary amount(s) in the Operating Reserve Fund, and (E) pay all other amounts which the Board may by law or contract be obligated; (ii) for each Fiscal Year to generate Rate Covenant Net Revenues sufficient to at least equal 125% of the Annual Debt Service with respect to Senior Debt and 110% of the aggregate Annual Debt Service with respect to Senior Debt and Subordinate Debt; and (iii) for each Fiscal Year to generate Adjusted Rate Covenant Net Revenues (excluding transfers from the Rate Stabilization Fund to the Revenue Fund and proceeds of Grants) sufficient to at least equal 100% of the Annual Debt Service.

Forecasts of revenues and expenses are prepared on an accrual basis, and are then adjusted to be consistent with the Board's budgeting process, and the specific requirements of the coverage tests identified in the General Bond Resolution. Compliance with the Rate Covenant is demonstrated on the Forecast Statement under the headings Senior Debt Service Coverage and Total Debt Service Coverage. Since the ratios calculated using Rate Covenant Net Revenues are greater than 1.25 for Senior Debt and 1.10 for Total Debt in each year of the Forecast Statement, the requirements under the first and second parts of the test related to Indebtedness are met. Once adjusted for transfers from the Rate Stabilization Fund and proceeds of Grants, the total debt service coverage on Adjusted Rate Covenant Net Revenues is well above 1.00, satisfying the third part of the test.

The assumptions disclosed herein are those that the Board believes are significant to the Forecast Statement. There will usually be differences between forecasted and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.

2. Background

Overview of Service Area

According to the Census Bureau, the estimated 2014 population of New Orleans is 384,320. The population has increased from an estimate of 208,548 in 2006 following Hurricane Katrina. Over the last four years, the population has increased 3.7%, 2.4%, 2.6%, and 1.5%. Prior to Hurricane Katrina the population was approximately 455,000. Therefore, the City anticipates additional growth in future years.

Governance

SWBNO was created in 1899 by Louisiana State Statutes and established as a “special board” operating independently of the government of the City of New Orleans. Even though SWBNO is a political subdivision of the State of Louisiana, SWBNO must obtain approval by the Board of Liquidation, City Debt and the New Orleans City Council to issue debt, modify millages, or increase rates and charges.

The Board of Directors includes 11 members – the Mayor of New Orleans, who serves as the President of the Board of Directors; two representatives of the Board of Liquidation, City Debt of the City of New Orleans; and eight appointees of the Mayor. The length of terms is four years, with a limit of two terms. The Mayor’s appointees are selected by the Mayor from a list of three names per position that is provided by a ten member selection committee of community leaders. At least one appointee is from each of the City’s five council districts, and the Board, as a whole, attempts to reflect the racial and gender composition of the City.

The Board recently directed staff to develop recommendations for Board committees. Staff has recommended that the Board replace the existing committees: Operations; Finance; Infrastructure and Executive, with the four committees. These committees and their roles are listed below.

- Audit – monitor internal and external compliance and controls efforts
- Governance – provide orientation and training to new Board members and drive Board performance improvement
- Finance and Administration – monitor financial performance for alignment with Board objectives
- Strategy – establish long-term objectives, identify risks, set strategy, and lead planning efforts

One of the primary objectives of the recommended structure is to foster strategic leadership by the Board while delegating operational responsibility and authority to the Executive Director.

The current organizational structure of the Board is included in Exhibit 1. This organizational structure is undergoing a top-down restructuring. There will be five additional Deputy Directors/Superintendents with oversight over the following areas.

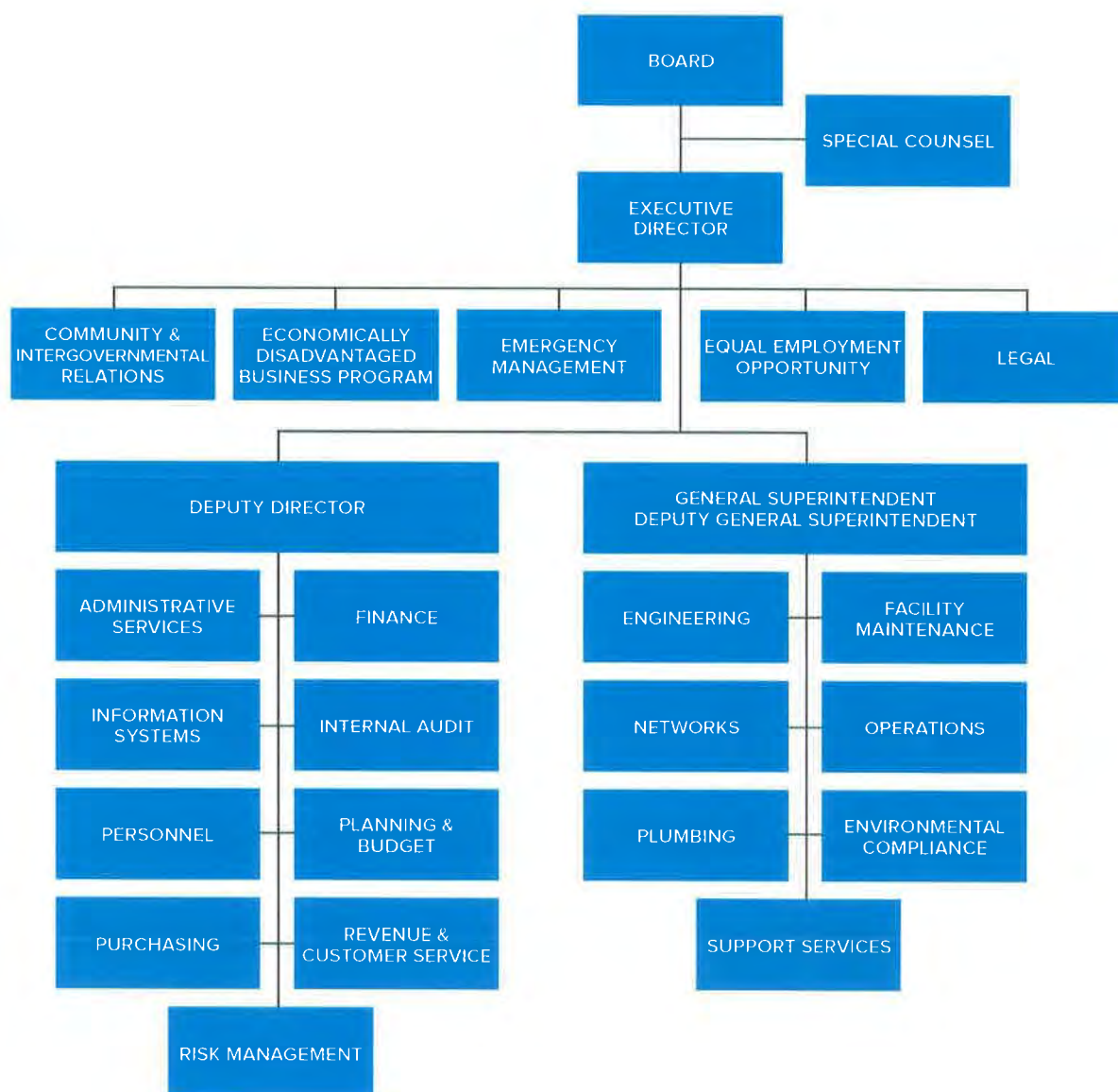
- Security

- Construction
- Logistics
- Communications
- Administration

The General Superintendent position will remain and will be responsible for overseeing operations. The existing Deputy Director position will also remain and will be responsible for financial matters, serving as the CFO of the organization.

Exhibit 1

 SWBNO Organizational Chart as of January 1, 2015



Sewerage System

The flat New Orleans topography has required a robust system for sewage collection and disposal. The Sewerage System of the City is a gravity collection system, consisting of 1,536 miles of lateral and trunk sewers, ranging in size from 8 inches to 72 inches in diameter. Lifting and conveying the sewage by trunk sewers and sewer force mains requires 83 pumping and lift stations.

The Board has two sewage treatment plants, one on the east bank and one in Algiers, with a combined treatment capacity of 162 million gallons per day. The plants are currently operated by a large private contract operator. Both plants were built in the 1970s and have been upgraded, modernized, and expanded to increase capacity and to keep up with the growth of the City. The plants discharge treated wastewater into the Mississippi River.

The Board began a major rehabilitation and capacity upgrade of its aging sewage collection system in 1996. Like most of the nation's major metropolitan areas, New Orleans' underground water and sewer systems are at least 40 years old and, in some cases, over 100 years old. Factors common to this area, such as unstable soil conditions and large numbers of tree roots, contribute to a higher-than-normal number of breaks and deterioration of the sewer pipes.

Sewerage System Projects

There is one major project that is currently underway or planned that will rehabilitate and update the Board's Sewerage System, the Sewer System Evaluation and Rehabilitation Program (SSERP);

Sewer System Evaluation and Rehabilitation Program (SSERP)

The Board has undertaken a multi-year program, the SSERP, to identify and address structural and mechanical deficiencies in the wastewater collection system. The SSERP, underway since 1996, is part of the EPA Consent Decree the Board signed in 1998. With the implementation of repairs identified and completed in the SSERP, the Board will not only be in compliance with federal regulations, but will also be accomplishing its goals of protecting the environment and increasing the sustainability of the Sewerage System.

Hurricane Katrina also caused extensive damage to the sewer collection system. As evidenced by the extent of damage in the areas where SSERP repairs had not yet been completed, it is clear that the work completed under the SSERP is greatly improving the resiliency and dependability of the Sewerage System. Work under the SSERP was interrupted following the storm, and the Board invoked Force Majeure with respect to its obligations under the Consent Decree. On March 22, 2010, the Board entered into a Modified Consent Decree that maintained the same basic structure of the original 1998 Decree. Subsequently, the Board has entered into a Second Modified Consent Decree and a Third Modified Consent Decree due to the ongoing impact caused by Hurricane Katrina. The completion dates identified in the Third Modified Consent Decree for the five basins range from March 31, 2018 to October 31, 2025.

3. Demand for Services

The Board provides sewerage service to all of the residential, commercial, and industrial customers within the City and Orleans Parish. As mentioned above, some of the population lost following Hurricane Katrina has returned, but the City is still 16% below its pre-Katrina population level. The City expects to continue to grow, and the forecast assumes a moderate level of growth in customers (2% annually) throughout the forecast period. However, like most utilities across the country, the Board is seeing declining per capita consumption. In addition, the Board anticipates there being some price elasticity impact due to the annual rate increases. Therefore, the forecast includes a resistance factor, which dampens the growth in sewerage sales. The resistance factor is 1% for the forecast period. As an example, the following equation is used to forecast sewerage sales for 2016.

2016 projected sales = 2015 projected sales * (1 + account growth factor) * (1 – resistance factor)

Exhibit 2 presents the projected number of sewerage accounts and sewerage sales by customer class. Residential customers account for over 85% of total sewerage accounts of the Sewerage System.

Exhibit 2

Sewerage Account and Sales Projections

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Residential						
Customers	110,323	112,529	114,780	117,076	119,418	121,806
Sales (1,000,000 gal)	5,545	5,486	5,428	5,370	5,368	5,366
Sales per Customer (1,000 gal)	50	49	47	46	45	44
Multi-Family						
Customers	4,690	4,784	4,880	4,978	5,078	5,180
Sales (1,000,000 gal)	676	669	662	655	654	654
Sales per Customer (1,000 gal)	144	140	136	132	129	126
Commercial						
Customers	10,420	10,628	10,841	11,058	11,279	11,505
Sales (1,000,000 gal)	5,480	5,422	5,365	5,308	5,306	5,304
Sales per Customer (1,000 gal)	526	510	495	480	470	461
Industrial						
Customers	28	28	28	28	28	28
Sales (1,000,000 gal)	151	151	151	151	151	151
Sales per Customer (1,000 gal)	5,393	5,393	5,393	5,393	5,393	5,393
Total						
Customers	125,461	127,969	130,529	133,140	135,803	138,519
Sales (1,000,000 gal)	11,852	11,728	11,605	11,484	11,479	11,475

The Board has a diverse customer base, with the Board's ten largest customers accounting for only approximately 4.88% of annual sewerage revenues in FY 2014. The two largest customers of the Board (on an annual revenue basis) are Tulane University and the University of New Orleans. These customers are highly stable and do not present a risk of significant decrease in

consumption during the forecast period. Exhibit 3 shows the largest customers of the Sewerage System by revenues.

Exhibit 3

██████ Largest Sewerage System Customers by Revenue

Customer's Name	Type of Business	Number of Accounts	Gallons Used	2014 Sewerage Revenue	% of Sewer Revenue
Tulane University	University	57	127,348,800	\$ 778,274	0.90%
UNO	University	6	108,228,000	589,307	0.68%
Triangle Real Estate	Housing	8	99,631,200	547,561	0.63%
Hyatt Regency Hotel	Hotel	2	80,731,200	437,007	0.50%
LSU Medical	Hospital	17	65,631,600	412,560	0.48%
Tulane Medical	Hospital	4	68,295,600	338,695	0.39%
HANO	Housing	159	44,935,200	288,082	0.33%
Xavier University	University	20	42,829,200	283,057	0.33%
Ritz Carlton Hotel	Hotel	3	55,405,200	276,327	0.32%
N.O. Exhibition Authority	Government	4	54,242,400	275,120	0.32%
TOTAL				\$ 4,225,990	4.88%

4. Rates and Charges

Each of the Board's three systems (water, sewerage, and drainage) operates as a distinct business enterprise. Appropriate fees and charges have been established to ensure that the Sewerage System can operate on a self-sustaining basis.

The Board initiated a comprehensive water and sewerage rate study in 2010. Over the next two and a half years, the Board worked diligently to identify an appropriate set of rate increases for implementation. Originally a five-year program of rate increases was contemplated, but later it evolved into an eight-year program of annual 10% sewerage rate increases, with the rate increases being applied across-the-board to the monthly base charges and the volumetric charge. The initial increase was implemented on January 1, 2013, so the Board is currently in the third year of the eight-year program.

Current Charges

The Board employs a sewerage rate structure with two components: a monthly service charge and a volumetric rate based on water consumed. The monthly service charge increases based on a customer's meter size. The volumetric rate is assessed as a uniform per thousand gallons rate for all customers. To recognize that a portion of the water used is not discharged to the Sewerage System, residential customers are assessed the volumetric charge based on 85% of water consumed, while non-residential customers are assessed the volumetric charge on 100% of water consumed.

Forecast Charges

The rates and charges forecast for 2016 through 2020 assume the approved annual 10% rate increases will be implemented. Even though the rates and charges will increase 61% during the five-year forecast period, we believe they will remain reasonable and relatively affordable with respect to peer utilities. See Explanatory Note 12 for an additional discussion on affordability of rates.

Exhibit 4 shows the Board's 2014, current, and forecast sewerage rates.

Exhibit 4**Current and Projected Monthly Sewerage Rates and Charges**

	Fiscal Year						
	2014	2015	2016	2017	2018	2019	2020
Fixed Charge							
<u>Meter Size</u>							
5/8-inch	\$ 14.04	\$ 15.44	\$ 16.98	\$ 18.68	\$ 20.55	\$ 22.61	\$ 24.87
3/4-inch	19.97	21.97	24.17	26.59	29.25	32.18	35.40
1-inch	28.44	31.28	34.41	37.85	41.64	45.80	50.38
1-1/2-inch	52.34	57.57	63.33	69.66	76.63	84.29	92.72
2-inch	76.54	84.19	92.61	101.87	112.06	123.27	135.60
3-inch	181.50	199.65	219.62	241.58	265.74	292.31	321.54
4-inch	302.50	332.75	366.03	402.63	442.89	487.18	535.90
6-inch	605.00	665.50	732.05	805.26	885.79	974.37	1,071.81
8-inch	907.50	998.25	1,098.08	1,207.89	1,328.68	1,461.55	1,607.71
10-inch	1,210.00	1,331.00	1,464.10	1,610.51	1,771.56	1,948.72	2,143.59
12-inch	1,391.50	1,530.65	1,683.72	1,852.09	2,037.30	2,241.03	2,465.13
16-inch	1,875.50	2,063.05	2,269.36	2,496.30	2,745.93	3,020.52	3,322.57
Volumetric Rates							
All Usage	\$ 4.88	\$ 5.37	\$ 5.91	\$ 6.50	\$ 7.15	\$ 7.87	\$ 8.66
Approved Rate Increases	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Exhibit 5 shows the current and projected sewerage costs for a residential customer having a 5/8" meter and that uses 5,300 gallons of water per month (the typical residential meter size and median residential monthly usage).

Exhibit 5**Residential Customer Bills, FY 2014 to FY 2020 (Usage of 5,300 gallons per month)**

	<u>Monthly Service Charge</u>	<u>Volumetric Charge</u>	<u>Total Sewerage Bill</u>	<u>% Change</u>
FY 2014	\$ 14.04	\$ 21.98	\$ 36.02	N/A
FY 2015	15.44	24.19	39.63	10.0 %
FY 2016	16.98	26.62	43.60	10.0 %
FY 2017	18.68	29.28	47.96	10.0 %
FY 2018	20.55	32.21	52.76	10.0 %
FY 2019	22.61	35.45	58.06	10.0 %
FY 2020	24.87	39.01	63.88	10.0 %

5. Revenues

In order to meet the financial obligations of the Series 2015 Bonds, other debt service obligations and other sewerage expenses, sewerage revenue requirements must be recovered exclusively from revenues associated with the Sewerage System. Revenues, as defined in the General Bond Resolution, include operating revenues (charges for services and other operating revenues) and non-operating revenues as identified in this Feasibility Evaluation.

Exhibit 6 shows the projection of operating and non-operating revenues during the forecast period. The 2015 projection is based on actual results through August. Operating revenues are primarily comprised of revenues from user rates and charges. These revenues have increased due to the rate increases as well as field account reviews and appropriate billing of the school system. These last two revenue enhancements were included as “Additional Revenue” in the Feasibility Report for the 2014 bond issue, but have been incorporated into the Sewer Sales line item for this analysis. In addition, there are revenues from plumbing inspection and license fees and other revenues.

Overall, total operating revenues are forecast to increase at an average compound rate of 10.7% per year over the forecast period, which is driven by projected rate increases and expectations for 2% growth in customers. The Board has a high collection rate and this is expected to continue through the forecast period, so no impact from collections has been assumed in the Feasibility Evaluation.

Regarding non-operating revenues, at this point the Board does not anticipate receiving any FEMA reimbursements for point repairs that are necessary due to the effects of Hurricane Katrina during the forecast period.

Exhibit 6

Estimated Annual Sewerage Revenues

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Operating Revenues						
Sewer Sales and Delinquent Fees	\$ 94,729,026	\$ 104,824,535	\$ 116,436,997	\$ 129,335,888	\$ 143,663,717	\$ 159,578,784
Plumbing Inspection & License Fees	299,729	326,081	326,081	326,081	326,081	326,081
Other Revenue	428,190	597,321	597,321	597,321	597,321	597,321
Additional Revenue	-	-	-	-	-	-
Total Operating Revenues	\$ 95,456,945	\$ 105,747,937	\$ 117,360,399	\$ 130,259,290	\$ 144,587,119	\$ 160,502,186
Non-Operating Revenues						
Non-Operating Revenue	\$ 470,944	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061
FEMA O&M Expense Reimbursement	-	-	-	-	-	-
Total Non-Operating Revenues	\$ 470,944	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061	\$ 462,061
Total Revenues	\$ 95,927,889	\$ 106,209,998	\$ 117,822,460	\$ 130,721,350	\$ 145,049,180	\$ 160,964,247

6. Operating and Non-operating Costs

Expenditures are categorized as operating expenses, non-operating expenses, or other budgeted expenditures and transfers. Exhibit 7 shows a combined forecast of operating and non-operating expenses for the Sewerage System. Operating expenses represent normal recurring expenses incurred during the Board's annual accounting cycle based upon its fiscal year ending December 31st. Even though actual operating expenses through August are approximately 6% below budget, projected operating expenses are based on budget information from the FY 2015 sewerage budget to be conservative. Escalation rates differ for each budget line item, but overall the costs are escalated by an average growth rate of 3.2%.

The Board recognizes that its current operating costs are too low to allow it to efficiently and sustainably run the Sewerage System. As a result, the Board is anticipating increases in O&M expenses to get it consistent with national standards for O&M expenses. At the same time, the Board anticipates gaining some efficiencies as it spends more on operations and maintenance. Together, these are accounted for in the Incremental O&M line item. The projects identified in the CIP are not expected to increase the operating costs of the Sewerage System. In fact, the improvements are more likely to reduce costs, but no reduction in costs has been included in the Forecast. These costs have been incorporated into the budget line items for FY 2015, so there are no costs listed for FY 2015. Overall, the compounded annual O&M expense increase is 5.1% for the forecast period. These increases in operating expenses should allow the Board to operate the Sewerage System in a sustainable manner through the forecast period and beyond.

Non-operating expenses include revenue funded capital (also known as PAYGO) and repayments. The level of revenue funded capital is projected to vary over the forecast period. The initial amount of \$14,000,000 in FY 2015 will decrease to \$8,000,000 in 2016 and then increase to \$25,000,000 by FY 2020, and in total, will fund approximately 27% of the Board-funded portion of the six-year capital plan. The revenue funded capital spending generates revenue to support the Board's debt service coverage ratios at an increasing level, as shown on the Forecast Statement. The Sewerage System anticipates making payments to the City's Department of Public Works and to claimants during the forecast period for expenses accrued in previous years. These expenses are currently accounted for in accounts payable, which will be reduced through the cash payments. Debt service obligations are not included in non-operating costs.

Exhibit 7

Operating and Non-Operating Expenses

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Operating and Maintenance						
Executive Director	\$ 2,002,770	\$ 2,064,710	\$ 2,128,601	\$ 2,194,506	\$ 2,262,491	\$ 2,332,623
Gen Administrative	1,814,644	1,871,983	1,931,188	1,992,320	2,055,447	2,120,635
Management Services Director	-	-	-	-	-	-
Personnel	702,961	725,710	749,224	773,530	798,658	824,635
Finance	795,111	820,691	847,125	874,442	902,675	931,854
Information Systems	2,170,565	2,236,167	2,303,762	2,373,410	2,445,174	2,519,120
Revenue	4,754,425	4,909,379	5,069,597	5,235,269	5,406,590	5,583,764
Purchasing	235,741	243,186	250,874	258,812	267,008	275,472
Support Services	3,735,917	3,869,044	4,007,217	4,150,641	4,299,527	4,454,099
Miscellaneous Expenses (1)	(334,042)	(344,063)	(354,385)	(365,017)	(375,967)	(387,246)
General Supt.	187,224	193,199	199,371	205,746	212,333	219,138
Operations	15,717,536	15,932,036	16,447,530	16,980,365	17,531,156	18,100,539
Facility Maintenance	2,387,891	2,464,106	2,542,837	2,624,170	2,708,195	2,795,006
Networks	16,525,664	16,770,164	17,022,935	17,284,272	17,554,482	17,833,882
Engineering	1,437,829	1,483,364	1,530,385	1,578,942	1,629,089	1,680,879
Plumbing	616,636	634,818	653,628	673,089	693,225	714,061
Payroll Related	3,117,318	3,250,073	3,388,837	3,533,892	3,685,534	3,844,071
Incremental O&M (2)	-	1,643,318	3,366,689	5,421,980	7,538,737	7,743,921
Total O&M Expenses	\$ 55,868,190	\$ 58,767,884	\$ 62,085,412	\$ 65,790,370	\$ 69,614,354	\$ 71,586,452
Non-Operating						
Revenue Funded Capital	\$ 14,000,000	\$ 8,000,000	\$ 13,000,000	\$ 15,000,000	\$ 20,000,000	\$ 25,000,000
Repayments (3)	2,911,000	2,911,000	486,000	-	-	-
Total Non-Operating Expenses	\$ 16,911,000	\$ 10,911,000	\$ 13,486,000	\$ 15,000,000	\$ 20,000,000	\$ 25,000,000
Total Costs	\$ 72,779,190	\$ 69,678,884	\$ 75,571,412	\$ 80,790,370	\$ 89,614,354	\$ 96,586,452

(1) Miscellaneous Expenses is negative because it includes a large negative overhead allocation to capital

(2) The Incremental O&M is a function of additional O&M to become more consistent with other sustainably run sewerage utilities and efficiency gains from the additional O&M funding. For FY 2015, it has been incorporated into the other line items.

(3) Repayments to DPW and Claimants are the result of arrangements prior to the forecast.

7. Capital Expenditures and Funding Sources

The Capital Improvement Plan (“CIP”) for the Board consists of a variety of sewerage projects that are anticipated to occur over the six-year forecast period. The Board remains under a consent decree and a portion of the Sewerage CIP is required as part of the consent decree. Another portion of the CIP relates to projects associated with repairing and replacing aging infrastructure. Much of the Sewerage System was built at least 75 years ago, so there is significant need to recapitalize parts of the Sewerage System. Overall, the Board’s CIP provides a comprehensive list of projects needed to upgrade and maintain the Sewerage System facilities to ensure the Board is in compliance with all federal, state, and local regulations and mandates. The Sewerage System has sufficient capacity to meet current and projected demand, so the CIP is not focused on system extensions or increased treatment capacity.

Over the six-year period, the Board anticipates spending approximately \$400 million (in 2015 dollars) on capital projects (or approximately \$428 million in escalated dollars)¹. The Board will be responsible for almost \$356 million (escalated) of the CIP, while other contributors, such as the FEMA or the Corps of Engineers, are projected to spend almost \$73 million. Exhibit 8 shows the un-escalated and escalated six-year CIP with the responsibilities of the Board.

Exhibit 8

Six-Year CIP

	Fiscal Year						Total
	2015	2016	2017	2018	2019	2020	
Unescalated							
CIP Projects to be Funded by the Board	\$ 54,262,529	\$ 51,307,540	\$ 60,705,830	\$ 44,567,974	\$ 58,961,974	\$ 60,386,669	\$ 330,192,516
CIP Projects to be Funded by Others	42,834,039	8,671,936	8,383,748	8,035,000	1,035,000	1,035,000	69,994,723
Total Capital Projects	\$ 97,096,568	\$ 59,979,476	\$ 69,089,578	\$ 52,602,974	\$ 59,996,974	\$ 61,421,669	\$ 400,187,239
Escalated							
CIP Projects to be Funded by the Board	\$ 54,262,529	\$ 52,846,766	\$ 64,402,815	\$ 48,700,629	\$ 66,362,221	\$ 70,004,700	\$ 356,579,660
CIP Projects to be Funded by Others	42,834,039	8,932,094	8,894,318	8,780,061	1,164,902	1,199,849	71,805,263
Total Capital Projects	\$ 97,096,568	\$ 61,778,860	\$ 73,297,133	\$ 57,480,690	\$ 67,527,123	\$ 71,204,548	\$ 428,384,923

The Board plans to issue additional debt annually to address capital needs during the forecast period. Exhibit 9 shows the six-year capital spending plan for the Sewerage System, along with projected funding sources. Exhibit 9 excludes capital expenditures that are planned but will be funded beyond the forecast period.

¹ The CIP was prepared in 2015 dollars so costs have been escalated 3.0% annually.

Exhibit 9**■■■■ Six-Year Capital Funding Projections**

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Beginning Unspent Bond Proceeds	\$ 27,584,406	\$ 86,301,169	\$ 77,454,402	\$ 57,551,587	\$ 55,350,959	\$ 40,488,738
Sources of Funds						
Current Revenue Funded Capital	\$ 14,000,000	\$ 8,000,000	\$ 13,000,000	\$ 15,000,000	\$ 20,000,000	\$ 25,000,000
Revenue Bond Proceeds	107,230,175	40,000,000	35,000,000	35,000,000	35,000,000	35,000,000
Participation by Others	42,834,039	8,932,094	8,894,318	8,780,061	1,164,902	1,199,849
Total Sources	\$ 191,648,620	\$ 143,233,263	\$ 134,348,721	\$ 116,331,649	\$ 111,515,861	\$ 101,688,586
Uses of Funds						
Capital Improvement Program	\$ 97,096,568	\$ 61,778,860	\$ 73,297,133	\$ 57,480,690	\$ 67,527,123	\$ 71,204,548
Capitalized Interest Fund	-	-	-	-	-	-
Debt Issuance Costs	1,731,384	600,000	525,000	525,000	525,000	525,000
Debt Service Reserve Fund	6,519,500	3,400,000	2,975,000	2,975,000	2,975,000	2,975,000
Total Uses	\$ 105,347,452	\$ 65,778,860	\$ 76,797,133	\$ 60,980,690	\$ 71,027,123	\$ 74,704,548
Ending Unspent Bond Proceeds	\$ 86,301,169	\$ 77,454,402	\$ 57,551,587	\$ 55,350,959	\$ 40,488,738	\$ 26,984,038

The Board plans to pay for a significant portion of the projected capital needs with revenue generated from utility operations. The level of this revenue funded capital is projected to vary during the forecast period, but is expected to fund approximately 22% of the total six-year CIP. The revenue funded capital will support the Board's debt service coverage ratios, as shown on the Forecast Statement.

8. Financing Plan

The Board has worked with its underwriters, financial advisors, consulting engineers, and qualified independent consultants (the “Financing Team”) to evaluate various financing strategies for the CIP projects funded with the Series 2015 Bonds and future revenue bonds. The Board has selected a financing plan designed to accomplish the following objectives:

- Conform with credit criteria established by rating agencies;
- Minimize debt service and related charges; and
- Provide funds as needed and in the most cost-effective manner.

The proceeds from the Series 2015 Bonds will be available in July 2015 to fund the capital projects described in Explanatory Note 7.

Exhibit 10

Sources and Uses of Series 2015 Bonds*

	Series 2015
Sources	
Bond Proceeds:	
Par Amount	\$ 100,000,000
Premium	7,230,175
Subtotal	\$ 107,230,175
Other Sources of Funds:	
Total	\$ 107,230,175
Uses	
Project Fund Deposits	
Project Fund	\$ 98,979,291
Other Fund Deposits	
Debt Service Reserve Fund	\$ 6,519,500
Delivery Date Expenses	
Cost of Issuance	\$ 996,384
Underwriter's Discount	735,000
Subtotal	\$ 1,731,384
Total	\$ 107,230,175

* Preliminary, subject to change.

Exhibit 11 shows the debt service schedule for current Outstanding Indebtedness for the Sewerage System. The Board's Indebtedness has been classified as Senior Indebtedness or Subordinated Indebtedness, consistent with the current General Bond Resolution.

Exhibit 11**Existing Long-Term Debt Service**

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Senior Debt Service						
Series 2011	\$ 494,624	\$ 494,663	\$ 493,668	\$ 494,635	\$ 494,560	\$ 494,446
Series 2014	15,897,950	18,042,388	19,309,825	17,642,450	16,217,450	16,234,075
Total Senior Debt	\$ 16,392,574	\$ 18,537,050	\$ 19,803,493	\$ 18,137,085	\$ 16,712,010	\$ 16,728,521
Other Debt Service						
GO Zone Repayment	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582
Total Other Debt	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,583
Total Existing Debt Service	\$ 22,626,156	\$ 24,770,632	\$ 26,037,075	\$ 24,370,667	\$ 22,945,592	\$ 22,962,104

(1) This debt service is excluded from total debt service coverage calculations.

Exhibit 12 shows the forecasted debt service beyond 2015, which includes annual issues throughout the forecast period. The assumptions used to project future debt service include:

- 30-year term;
- 5.5% interest rate;
- No capitalized interest;
- 1.5% issuance costs;
- 8.5% debt service reserve requirement; and
- Equal annual total debt service payments.

Using these assumptions, it is anticipated that the size of future bond issues during the forecast period (issued after the Series 2015 Bonds) will be as follows:

Series 2016 Bonds – \$44,000,000
 Series 2017 Bonds – \$38,500,000
 Series 2018 Bonds – \$38,500,000
 Series 2019 Bonds – \$38,500,000
 Series 2020 Bonds – \$38,500,000

Exhibit 12**Projected Debt Issuances after 2015**

	Series 2016 Bonds			Series 2017 Bonds			Series 2018 Bonds			Series 2019 Bonds			Series 2020 Bonds		
Net Proceeds	\$40,000,000			\$35,000,000			\$35,000,000			\$35,000,000			\$35,000,000		
Capitalized Interest	\$0			\$0			\$0			\$0			\$0		
Cost of Issuance	\$600,000			\$525,000			\$525,000			\$525,000			\$525,000		
Debt Service Reserve Fund	\$3,400,000			\$2,975,000			\$2,975,000			\$2,975,000			\$2,975,000		
Total	\$44,000,000			\$38,500,000			\$38,500,000			\$38,500,000			\$38,500,000		

	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Grand Total
2015	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
2016	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
2017	676,093	2,351,344	3,027,437	—	—	—	—	—	—	—	—	—	—	—	—	3,027,437
2018	713,278	2,314,159	3,027,437	624,118	2,024,869	2,649,008	—	—	—	—	—	—	—	—	—	5,676,445
2019	752,508	2,274,929	3,027,437	658,445	1,990,563	2,649,008	858,445	1,990,563	2,849,008	—	—	—	—	—	—	8,325,452
2020	793,898	2,233,541	3,027,437	694,859	1,954,348	2,649,008	694,859	1,954,348	2,649,008	694,859	1,954,348	2,649,008	—	—	—	10,974,460
2021	837,560	2,189,877	3,027,437	732,865	1,915,142	2,649,008	732,865	1,915,142	2,649,008	732,865	1,915,142	2,649,008	732,865	1,915,142	2,649,008	13,623,467

Exhibit 13 shows the forecast debt service, which includes annual issues throughout the forecast period. Overall, these assumptions are very conservative, for example, the Series 2014 Bonds were 30-year bonds as are the Series 2015 Bonds, and it should be anticipated that the actual debt service will have lower costs and can be structured to better meet the objectives of the Board.

Exhibit 13**Projected Long-Term Debt Service**

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Senior Debt Service						
Existing Debt	\$ 16,392,574	\$ 18,537,050	\$ 19,803,493	\$ 18,137,085	\$ 16,712,010	\$ 16,728,521
Proposed Series 2015 (1)	—	6,519,444	6,518,750	6,519,500	6,516,250	6,519,000
Projected Series 2016	—	—	3,027,437	3,027,437	3,027,437	3,027,437
Projected Series 2017	—	—	—	2,649,008	2,649,008	2,649,008
Projected Series 2018	—	—	—	—	2,649,008	2,649,008
Projected Series 2019	—	—	—	—	—	2,649,008
Total Senior Debt	\$ 16,392,574	\$ 25,056,495	\$ 29,349,680	\$ 30,333,030	\$ 31,553,712	\$ 34,221,981
Subordinate Debt Service						
None	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Total Subordinate Debt	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Other Debt Service						
GO Zone Repayment	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582
Total Subordinate Debt	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582	\$ 6,233,582
Total Proposed Debt Service	\$ 22,626,156	\$ 31,290,077	\$ 35,583,262	\$ 36,566,612	\$ 37,787,294	\$ 40,455,563

(1) Based on debt service provided by PFM on September 15, 2015

9. Additional Bonds Test

As the second issue under the General Bond Resolution, the issuance of the Series 2015 Bonds is subject to the additional bonds test. Under the General Bond Resolution, the Board may issue additional bonds only if any one of two requirements, or tests, set forth in Section 4.03(h), are met. Reproduced below are the requirements for the tests.

A certificate of (A) a Qualified Independent Consultant, stating that based on the Board's financial records for a Test Period, the Board would have been able to meet the Rate Covenant in Section 7.01, taking into account (i) the maximum Annual Debt Service on the proposed Series of Additional Bonds in the current or any future Fiscal Year, (ii) the Additional Net Revenues from the rates, fees and other charges adjusted to reflect any rate increases that had not been in effect throughout the Test Period but that have been approved by the Board, the Board of Liquidation, and the City at the time of the delivery of the proposed Series of Additional Bonds to go into effect within the following five years; and (iii) additional Net Revenues that the Board may realize from the addition to the System of the assets it proposes to finance through the issuance of the proposed Series of Additional Bonds or other funding sources within the following five years or (B) the Authorized Officer of the Board stating that based on the Board's financial records for a Test Period, the Board would have been able to meet the Rate Covenant in Section 7.01, taking into account the maximum annual Debt Service on the proposed Series of Additional Bonds. In making the certifications required under this paragraph, the Qualified Independent Consultant, as applicable, shall determine and utilize the Additional Indebtedness Test Net Revenues in place of the Rate Covenant Net Revenues in determining whether the Board would have been able to meet the Rate Covenant in Section 7.01.

Both tests are based on a historical Test Period, which is a consecutive 12-month period within the 24 months prior to the issuance of the bonds. Test A allows for adjustments based on approved rate increases for up to five years and based on additional revenues from the assets financed through the additional bonds, while Test B allows for no adjustments to revenues. Exhibit 14 shows the Senior Debt service by year including the Series 2015 Bonds with the Maximum Annual Debt Service highlighted. Exhibit 15 shows that the Board is able to pass both Test A and Test B. The adjustments included in Test A are five 10% rate increases, one of which was implemented January 1, 2015 and four are approved for implementation on January 1 of each year, 2016 through 2019.

Exhibit 14**Maximum Annual Debt Service (1)**

Year	Amount	Year	Amount	Year	Amount
2015	\$ 16,392,574	2025	\$ 12,006,379	2035	\$ 11,481,375
2016	\$ 25,056,495	2026	\$ 12,003,028	2036	\$ 11,477,250
2017	\$ 26,322,243	2027	\$ 12,003,764	2037	\$ 11,475,625
2018	\$ 24,656,585	2028	\$ 11,998,957	2038	\$ 11,470,625
2019	\$ 23,228,260	2029	\$ 11,996,108	2039	\$ 11,466,375
2020	\$ 23,247,521	2030	\$ 12,001,022	2040	\$ 11,462,000
2021	\$ 20,117,870	2031	\$ 11,997,093	2041	\$ 11,456,250
2022	\$ 18,099,055	2032	\$ 11,996,947	2042	\$ 11,453,250
2023	\$ 14,288,703	2033	\$ 11,993,120	2043	\$ 11,446,875
2024	\$ 13,940,437	2034	\$ 11,498,363	2044	\$ 11,440,875

(1) There is no subordinate debt in 2015, so this debt service is the maximum Senior Debt Service and Maximum Total Debt Service.

Exhibit 15**Additional Bonds Test**

	Adjusted Actual (1) - Test A	Actual (FY 14) - Test B
Sewerage Service Charges	\$ 139,394,894	\$ 86,553,262
Other Operating Revenue	1,245,296	1,245,296
	\$ 140,640,190	\$ 87,798,558
Total O&M	\$ 63,273,567	
Less: Depreciation	15,005,720	
Less: Provision for doubtful accounts	944,199	
Net O&M	\$ 47,323,648	\$ 47,323,648
Additional Indebtedness Test Net Revenues	\$ 93,316,542	\$ 40,474,910
Maximum Annual Senior Debt Service	\$ 26,322,243	\$ 26,322,243
Maximum Annual Total Debt Service	\$ 26,322,243	\$ 26,322,243
Maximum Annual Senior Debt Service Coverage	3.55	1.54
Required	1.25	1.25
Maximum Annual Total Debt Service Coverage	3.55	1.54
Required	1.10	1.10
Pass (Yes/No)	Yes	Yes

(1) Assumes five approved 10% rate increases

10. Fund Balances

The Board was able to provide the services necessary to allow for residents to return following Hurricane Katrina because it had strong financial reserves when Hurricane Katrina struck the City. Therefore, the Board understands the importance of maintaining appropriate levels of operating and capital reserves. The General Bond Resolution requires an Operating Reserve of 90 days of annual operating expenses (90 days cash on hand). However, the Board has set a target of having at least 180 days cash on hand between the Operating Fund and the Rate Stabilization Fund. As can be seen in Exhibit 16, the Board is in excess of this target starting in FY 2016, and well in excess of it towards the end of the forecast period.

Exhibit 16

Fund Balances

Available Fund Balances	Fiscal Year						
	Initial	2015	2016	2017	2018	2019	2020
Beginning Unrestricted Balance (1)	\$ 25,554,380	\$ 11,778,662	\$ 12,301,204	\$ 16,827,248	\$ 22,677,013	\$ 35,127,830	\$ 51,832,462
Sources							
Operating Revenues		\$ 95,456,945	\$ 105,747,937	\$ 117,360,399	\$ 130,259,290	\$ 144,587,119	\$ 160,502,186
Non-Operating Revenues		470,944	462,061	462,061	462,061	462,061	462,061
Total Sources		\$ 95,927,889	\$ 106,209,998	\$ 117,822,460	\$ 130,721,350	\$ 145,049,180	\$ 160,964,247
Uses							
Operating Expenses		\$ 55,868,190	\$ 58,767,884	\$ 62,085,412	\$ 65,790,370	\$ 69,614,354	\$ 71,586,452
Transfer to Operating Reserve Fund (2)	13,775,718	-	714,993	818,021	913,551	942,900	486,271
Transfer to Rate Stabilization Fund		-	-	-	-	-	-
Repayments		2,911,000	2,911,000	486,000	-	-	-
Debt Service		22,626,156	31,290,077	35,583,262	36,566,612	37,787,294	40,455,563
Revenue Funded Capital		14,000,000	8,000,000	13,000,000	15,000,000	20,000,000	25,000,000
Total Uses	\$ 13,775,718	\$ 95,405,346	\$ 101,683,954	\$ 111,972,695	\$ 118,270,533	\$ 128,344,547	\$ 137,528,286
Remaining Unrestricted Funds for Transfer	\$ 11,778,662	\$ 522,542	\$ 4,526,044	\$ 5,849,765	\$ 12,450,817	\$ 16,704,632	\$ 23,435,961
Total Available Funds - End of Year Balances							
Remaining Unrestricted Funds	\$ 11,778,662	\$ 12,301,204	\$ 16,827,248	\$ 22,677,013	\$ 35,127,830	\$ 51,832,462	\$ 75,268,423
Operating Reserve Fund	13,775,718	13,775,718	14,490,711	15,308,732	16,222,283	17,165,183	17,651,454
Rate Stabilization Fund		-	-	-	-	-	-
Total	\$ 25,554,380	\$ 26,076,922	\$ 31,317,959	\$ 37,985,745	\$ 51,350,113	\$ 68,997,645	\$ 92,919,877
<i>Days of Cash on Hand (3)</i>		170	195	223	285	362	474

(1) The beginning balance for 2015 is comprised of undesignated and designated unrestricted cash and cash equivalents as well as customer deposits from the 2014 CAFR.

(2) 90 days of O&M expenses as required in the General Sewerage Service Revenue Bond Resolution.

(3) The Board has an internal target of 180 days.

11. Bill Comparisons

One of the key objectives of the Board is to maintain rates and charges at a sufficient level to provide revenues to recover existing operating costs and capital costs associated with the issuance of the Series 2015 Bonds and future bonds. The Board's current rates became effective January 1, 2015 and included the second of the approved eight annual 10% rate increases. The Feasibility Evaluation assumes the remaining annual approved rate increases will be implemented through 2020. Although the Board and City Council have taken steps to address the need to set rates and charges at a level sufficient to address total System revenue requirements, the Board also considers objectives to maintain rates that are reasonably affordable and provide a competitive cost environment relative to other utilities. Exhibit 17 shows a comparison of wastewater costs with other peer communities. The cost comparison is based upon a projected monthly bill for a residential customer with a 5/8" meter (some utilities listed use a 3/4" meters for residential customers) and 5,300 gallons of water usage and a non-residential customer with a 2" meter and 374,000 gallons of water usage.

As shown, the annual wastewater bill for a residential customer using 5,300 gallons of water per month is \$39.63, or \$475.58 per year. Orleans Parish has an estimated median household income ("MHI") of \$39,849 based on an assumed median household income of \$36,681 in 2012 escalated 2.8% annually. The ratio of annual wastewater costs for a typical residential customer to MHI is approximately 1.19%. This percentage falls well below the industry's most commonly used affordability metric, the guideline of 2.00% as identified by the EPA's Financial Capability Assessment publication.²

Exhibit 17

Comparison of Sewerage Bills with Other Representative Communities as of April 2015

City	Monthly Bill (5,300 gallons/month)	Monthly Bill (374,000 gallons/month)
Atlanta	\$ 92.54	\$ 7,827.71
Birmingham	\$ 62.19	\$ 4,291.93
New Orleans	\$ 39.63	\$ 2,092.57
Mobile	\$ 38.63	\$ 2,586.35
St. Louis	\$ 35.99	\$ 1,426.25
Little Rock	\$ 35.28	\$ 2,489.90
Houston	\$ 31.54	\$ 2,180.79
Nashville	\$ 31.32	\$ 2,217.09
Jackson	\$ 31.29	\$ 2,212.65
Dallas	\$ 30.69	\$ 1,409.95
Baton Rouge	\$ 29.86	\$ 1,760.32
Memphis	\$ 12.02	\$ 847.86

² Combined Sewer Overflows: Guidance for Financial Capability Assessment and Schedule Development (Environmental Protection Agency, March 1997) page 19.

During the forecast period, the monthly sewerage bill for a typical customer will increase from \$39.63 to \$63.88. We anticipate that the bills for the representative communities will also increase during this period.

12. Current Issues

There are three issues which the Board is particularly focused on evaluating and managing to the best of its ability. These issues include: 1) affordability of sewerage service; 2) stresses to net revenues, particularly related to declining per capita consumption; and 3) addressing the remaining capital plan after the forecast period. The following paragraphs discuss some of the analyses and planning associated with these issues.

Affordability

Historically, sewerage rates nationally have been very low, so the affordability of sewerage service has not been a concern. In recent years, sewerage rates have been increasing as regulatory requirements and the need to repair and replace aging infrastructure have required increasing capital investments. Between 2004 and 2014, sewer rates nationally increased 6.1% annually, while the CPI only increased 2.4% annually.³ This trend is expected to continue, meaning that affordability concerns are going to increase. As part of the Feasibility Evaluation, we calculated the customer impacts relative to median household income, which is typically used as a high-level test of affordability.

Exhibit 18 shows that even with the eight-year program of rate increases the sewerage rates will remain below 2.0% of projected median household income and just exceed 2.0% of median household effective buying income. This analysis indicates that the cost of sewerage service in New Orleans will remain affordable, based on a commonly used test, even with the approved rate increases.

Exhibit 18

Forecast Affordability Ratios

	2015	2016	2017	2018	2019	2020	2021	2022
Median Household Income	\$ 39,849	\$ 40,965	\$ 42,112	\$ 43,291	\$ 44,503	\$ 45,749	\$ 47,030	\$ 48,347
Median Household Effective Buying Income	\$ 31,098	\$ 31,969	\$ 32,864	\$ 33,784	\$ 34,730	\$ 35,702	\$ 36,702	\$ 37,730
Average Monthly Bill								
Water	\$ 30.27	\$ 33.29	\$ 36.62	\$ 40.30	\$ 44.34	\$ 48.79	\$ 48.79	\$ 48.79
Sewer	\$ 39.63	\$ 43.60	\$ 47.96	\$ 52.76	\$ 58.06	\$ 63.88	\$ 63.88	\$ 63.88
Combined	\$ 69.90	\$ 76.90	\$ 84.59	\$ 93.06	\$ 102.41	\$ 112.67	\$ 112.67	\$ 112.67
% of MHI								
Water	0.91%	0.98%	1.04%	1.12%	1.20%	1.28%	1.24%	1.21%
Sewer	1.19%	1.28%	1.37%	1.46%	1.57%	1.68%	1.63%	1.59%
Combined	2.10%	2.25%	2.41%	2.58%	2.76%	2.96%	2.87%	2.80%
% of MHHEBI								
Water	1.17%	1.25%	1.34%	1.43%	1.53%	1.64%	1.60%	1.55%
Sewer	1.53%	1.64%	1.75%	1.87%	2.01%	2.15%	2.09%	2.03%
Combined	2.70%	2.89%	3.09%	3.31%	3.54%	3.79%	3.68%	3.58%

Even though this analysis indicates the Board's rates are affordable in general, the Board recognizes that a portion of its customer base may be impacted more significantly by the increases in sewerage rates and charges. As such, the Board is evaluating mechanisms that could help ensure sewerage service remains affordable to its low-income customers.

³ AWWA & Raftelis Financial Consultants, Inc. 2014 Water and Wastewater Rate Survey.

Net Revenue Impacts

There are two ways that Net Revenues could be materially lower than projected in the Feasibility Evaluation: 1) revenues are lower than expected; or 2) operating expenses are higher than expected. The Board has examined these risks and believes the risk of lower revenues is of greater concern and has modeled different scenarios assuming lower revenues. While the Board has some control over operating expenses, it does not have control over the amount of water used by its customers, which is the basis for billing for sewerage service. The water industry is being impacted by the trend of declining per capita consumption. Efforts to promote conservation and efficient water use have sensitized customers. Perhaps more importantly, the evolution of more water efficient fixtures and appliances has also impacted per capita demand.

Since the volumetric component of the sewerage bill is based on water usage, the decline in water usage will impact revenues for the Sewerage System. The Feasibility Evaluation does incorporate some level of declining per capita demand by applying a resistance factor. As mentioned in Explanatory Note 3, the resistance factor is 1.0% for the forecast period. If demand is more negatively impacted than expected, this will affect the Sewerage System's revenue stream. To evaluate the potential impact, we increased the resistance factor by 2.0% each of the first three years and 1.0% in the last three years of the forecast period. Therefore, the resistance factor is assumed to be 3% in 2016, 2017, and 2018, and 2% for the remainder of the forecast period. The increase in the resistance factor was ramped down after three years because there will likely be some demand hardening and each reduction propagates through the remainder of the forecast. Even though this stress test focuses on declining consumption, it shows the impact of lower Net Revenues, which could also be attributable to other factors. Exhibit 19 shows the impact of the increased resistance factor on coverage. Even though it would lower coverage, the Sewerage System revenues would easily satisfy the rate covenant.

Exhibit 19

Debt Service Coverage under Stress Test for Declining Consumption

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Forecast Coverage	2.44	1.89	1.90	2.14	2.39	2.61
Stress Test Coverage	2.44	1.81	1.74	1.89	2.08	2.25

Capital Plan after 2020

The Feasibility Evaluation has considered a six-year forecast, FY 2015 through FY 2020. Even though the capital improvements identified and funded during this period will help the Board become a more sustainable utility, there are additional projects that have been identified beginning in FY 2020 which will be critical to the Board's long-term success. Currently, the ten-year CIP identifies approximately \$267 million (in 2015 dollars) in the four-year period from FY 2021 through FY 2024. These projects are not funded by the bond issues contemplated in this Feasibility Evaluation. Even though it is likely that the timing and size of these projects in FY 2021 and beyond will evolve over time, the Board recognizes it is possible that additional rate increases will be necessary to be able to fund the capital program after FY 2020 and anticipates beginning to further evaluate this need well in advance of FY 2021 as the timing and costs become more firm.

SEWERAGE AND WATER BOARD OF NEW ORLEANS, LOUISIANA

Financial Feasibility Evaluation of Water System Revenue Bonds, Series 2015



Draft Report

October __, 2015

EVALUATION BY FINANCIAL FEASIBILITY CONSULTANTS
Sewerage and Water Board of New Orleans, Louisiana
Water System
Revenue Bonds, Series 2015

We have evaluated the accompanying Forecast Statement of Revenues, Expenses, Debt Service, and Debt Service Coverage (the “Forecast Statement”) for the Sewerage and Water Board of New Orleans (the “Board” or “SWBNO”) Water System for the six fiscal years ending December 31, 2015 through December 31, 2020. Our evaluation was conducted in accordance with guidelines for the water industry and included such procedures as we considered necessary to evaluate the assumptions of the Board.

In evaluating the financial feasibility of the project, those assumptions that we believe are most significant include:

- Projected revenues from the approved rate adjustments during the six-year forecast period;
- Projected operating costs for providing water services to meet necessary requirements during the forecast period; and
- Projected future debt issues and the timing of additional debt service payments in order to meet capital investment needs.

The accompanying Forecast Statement is presented on an accrual basis, and is then adjusted to be consistent with the Board’s budgeting process for the Water System, and the specific requirements of the coverage tests identified in the General Water Service Revenue Bond Resolution (“General Bond Resolution”) dated as of May 21, 2014 as supplemented and amended by the Second Supplemental Bond Resolution dated as of October __, 2015. The Forecast Statement, together with the Summary of Significant Forecast Assumptions, which is included as an integral part of the forecast, constitutes the “Feasibility Evaluation” for the proposed capital projects and bond financing.

In our opinion, the accompanying Forecast Statement is presented in conformity with industry guidelines for presentation of a forecast, and the underlying assumptions provide a reasonable basis for the Board’s forecast. Based upon the assumptions in our report, the projected Revenues provide adequate funds to operate the Water System in a sustainable manner, to fund the capital plan, and to maintain the debt service coverage ratios required by the General Bond Resolution during the forecast period for the issuance of the Board’s Water System Revenue Bonds, Series 2015 (“Series 2015 Bonds”). However, there will usually be differences between the forecast and actual results because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

Raftelis Financial Consultants, Inc.

Charlotte, North Carolina
October __, 2015

By: Peiffer A. Brandt
Chief Operating Officer

Sewerage and Water Board of New Orleans
Proposed Water Revenue Bonds, Series 2015
Forecast Statement of Revenues, Expenses, Debt, and Debt Service Coverage with Capitalized Interest

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Revenues						
Operating Revenues						
Water Sales and Delinquent Fees (1)	\$ 77,086,953	\$ 85,302,302	\$ 94,752,091	\$ 105,248,728	\$ 116,908,182	\$ 129,859,271
Plumbing and Inspection Fees	299,729	299,729	299,729	299,729	299,729	299,729
Subtotal: Water Sales and Fees	\$ 77,386,682	\$ 85,602,031	\$ 95,051,820	\$ 105,548,457	\$ 117,207,911	\$ 130,158,999
Other Revenues (2)	\$ 3,291,782	\$ 3,155,081	\$ 3,155,081	\$ 3,155,081	\$ 3,155,081	\$ 3,155,081
Additional Revenue (3)	-	-	-	-	-	-
Total Operating Revenues	\$ 80,678,463	\$ 88,757,112	\$ 98,206,901	\$ 108,703,538	\$ 120,362,992	\$ 133,314,080
Non-Operating Revenues	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501
Total Non-operating Revenues	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501
Total Revenues	\$ 81,078,964	\$ 89,157,613	\$ 98,607,402	\$ 109,104,039	\$ 120,763,493	\$ 133,714,581
Expenses						
Operating Expenses						
O&M Expenditures (4)	\$ 71,680,615	\$ 74,301,129	\$ 77,008,184	\$ 79,841,635	\$ 82,729,376	\$ 85,715,562
Depreciation & Amortization (5)	14,825,445	14,825,445	14,825,445	14,825,445	14,825,445	14,825,445
Provision for Bad Debt (6)	1,617,335	1,617,335	1,617,335	1,617,335	1,617,335	1,617,335
Total Operating Expenses	\$ 88,123,394	\$ 90,743,908	\$ 93,450,963	\$ 96,284,414	\$ 99,172,155	\$ 102,158,341
Net Revenues	\$ (7,044,430)	\$ (1,586,295)	\$ 5,156,439	\$ 12,819,625	\$ 21,591,337	\$ 31,556,240
Less: Transfers to Rate Stabilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: Transfers from Rate Stabilization	-	-	-	-	-	-
Plus: Depreciation & Amortization	14,825,445	14,825,445	14,825,445	14,825,445	14,825,445	14,825,445
Plus: Provision for Bad Debt	1,617,335	1,617,335	1,617,335	1,617,335	1,617,335	1,617,335
Rate Covenant Net Revenues	\$ 9,398,349	\$ 14,856,484	\$ 21,599,218	\$ 29,262,404	\$ 38,034,117	\$ 47,999,019
Senior Debt Service - 2015 Issue						
Existing Debt	\$ 3,500,000	\$ 5,501,250	\$ 7,700,000	\$ 7,693,000	\$ 7,700,000	\$ 7,690,000
Proposed Series 2015 (7)	-	-	6,605,000	6,604,750	6,605,500	6,607,000
Total Senior Debt Service	\$ 3,500,000	\$ 5,501,250	\$ 14,305,000	\$ 14,297,750	\$ 14,305,500	\$ 14,297,000
Senior Debt Service Coverage - 2015 Issue	2.69	2.70	1.51	2.05	2.66	3.36
Senior Debt Service - Programmatic						
Historical/2015 Debt Service	\$ 3,500,000	\$ 5,501,250	\$ 14,305,000	\$ 14,297,750	\$ 14,305,500	\$ 14,297,000
Projected Future Bonds (8)	-	-	-	1,996,216	5,988,649	12,376,541
Total Senior Debt Service	\$ 3,500,000	\$ 5,501,250	\$ 14,305,000	\$ 16,293,966	\$ 20,294,149	\$ 26,673,541
Senior Debt Service Coverage - Programmatic (9)	2.69	2.70	1.51	1.80	1.87	1.80
Total Debt Service Requirements	\$ 3,500,000	\$ 5,501,250	\$ 14,305,000	\$ 16,293,966	\$ 20,294,149	\$ 26,673,541
Total Debt Service Coverage (10)	2.69	2.70	1.51	1.80	1.87	1.80
Rate Covenant Net Revenues	\$ 9,398,349	\$ 14,856,484	\$ 21,599,218	\$ 29,262,404	\$ 38,034,117	\$ 47,999,019
Less: Transfers from Rate Stabilization	-	-	-	-	-	-
Less: Grants	-	-	-	-	-	-
Adjusted Rate Covenant Net Revenues	\$ 9,398,349	\$ 14,856,484	\$ 21,599,218	\$ 29,262,404	\$ 38,034,117	\$ 47,999,019
Total Debt Service Coverage on Adjusted Rate Covenant Net Revenues (11)	2.69	2.70	1.51	1.80	1.87	1.80
Revenue after Debt Service	\$ 5,898,349	\$ 9,355,234	\$ 7,294,218	\$ 12,968,437	\$ 17,739,967	\$ 21,325,478
Less: GO Zone Repayment	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836
Less: Revenue Funded Capital	3,000,000	3,000,000	4,000,000	5,000,000	8,000,000	10,000,000
Less: Repayments	3,891,044	2,186,000	436,000	436,000	-	-
Total Income/(Deficit)	(1,633,531)	3,528,398	2,217,383	6,891,602	9,099,132	10,684,642
Ending Balance of Available Funds	\$ 29,188,183	\$ 32,716,582	\$ 34,933,964	\$ 41,825,566	\$ 50,924,698	\$ 61,609,341
<i>Days of Cash on Hand</i>	149	161	166	191	225	262

- (1) Based on 2015 projected actual revenues with growth, rate increases, and resistance factors. See Explanatory Note 5 for more detail.
- (2) Primarily consists of reconnect and reset fees (over \$2.4 million of the \$2.8 million total in 2014).
- (3) Additional revenue, which was included in the feasibility report for the Series 2014 Bonds, has been incorporated in the Water Sales and Delinquent Fees line item.
- (4) Based on the 2015 budget with annual increases. Additional O&M to reach more sustainable O&M levels and efficiency savings which were included in the feasibility report for the Series 2014 Bonds have been incorporated. See Explanatory Note 6 for more detail.
- (5) Based on the average of the last two years in historical schedule. The Board anticipates continuing to collapse Depreciation and Amortization into a single line item going forward.
- (6) Based on the average of the five years in historical schedule.
- (7) Based on preliminary estimates associated with obtaining approximately \$93 million in proceeds.
- (8) Annual bond issues with two years of capitalized interest are expected throughout the forecast period. See Explanatory Note 8 for more detail.
- (9) Rate covenant requires coverage of 1.25 on Senior Debt Service.
- (10) Rate covenant require coverage of 1.10 on Total Debt Service.
- (11) Rate covenant requires coverage of 1.00 on Total Debt Service after excluding certain revenues, such as operating grants.

Sewerage and Water Board of New Orleans
Proposed Water Revenue Bonds, Series 2014
Historical Statement of Revenues, Expenses, Debt, and Debt Service Coverage (1)

	Fiscal Year					
	2009	2010	2011	2012	2013	2014
Revenues						
Operating Revenues						
Water Sales and Delinquent Fees	\$ 50,677,054	\$ 55,079,772	\$ 59,890,312	\$ 60,256,304	\$ 64,398,609	\$ 70,818,255
Plumbing and Inspection Fees	242,224	373,213	379,036	343,903	321,518	339,176
Subtotal: Water Sales and Fees	\$ 50,919,278	\$ 55,452,985	\$ 60,269,348	\$ 60,600,207	\$ 64,720,127	\$ 71,157,431
Other Revenues	\$ 1,721,396	\$ 3,245,693	\$ 4,429,221	\$ 3,234,003	\$ 3,253,430	\$ 2,841,110
Additional Revenue	-	-	-	-	-	-
Total Operating Revenues	\$ 52,640,674	\$ 58,698,678	\$ 64,698,569	\$ 63,834,210	\$ 67,973,557	\$ 73,998,541
Non-Operating Revenues	\$ 282,135	\$ 188,220	\$ 187,212	\$ 219,089	\$ 303,719	\$ 604,595
O&M Expense Reimbursements	16,600,790	6,251,855	11,514,936	7,617,063	1,981,568	(381,876)
Total Non-operating Revenues	\$ 16,882,925	\$ 6,440,075	\$ 11,702,148	\$ 7,836,152	\$ 2,285,287	\$ 222,719
Total Revenues	\$ 69,523,599	\$ 65,138,753	\$ 76,400,717	\$ 71,670,362	\$ 70,258,844	\$ 74,221,260
Expenses						
Operating Expenses						
O&M Expenditures	\$ 51,983,869	\$ 58,180,210	\$ 64,677,227	\$ 61,988,096	\$ 64,170,161	\$ 68,565,759
Depreciation & Amortization	13,894,896	13,966,864	13,811,991	11,341,531	16,162,085	18,844,752
Provision for Bad Debt	(1,143,599)	3,053,826	1,658,080	1,150,450	1,072,550	1,151,767
Total Operating Expenses	\$ 64,735,166	\$ 75,200,900	\$ 80,147,298	\$ 74,480,077	\$ 81,404,796	\$ 88,562,278
Net Revenues	\$ 4,788,433	\$ (10,062,147)	\$ (3,746,581)	\$ (2,809,715)	\$ (11,145,952)	\$ (14,341,018)
Less: Transfers to Rate Stabilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: Transfers from Rate Stabilization	-	-	-	-	-	-
Plus: Depreciation & Amortization	13,894,896	13,966,864	13,811,991	11,341,531	16,162,085	18,844,752
Plus: Provision for Bad Debt	(1,143,599)	3,053,826	1,658,080	1,150,450	1,072,550	1,151,767
Rate Covenant Net Revenues	\$ 17,539,730	\$ 6,958,543	\$ 11,723,490	\$ 9,682,266	\$ 6,088,683	\$ 5,655,501
Senior Debt Service						
Senior Debt Payment	\$ 3,886,268	\$ 3,905,618	\$ 3,917,393	\$ 3,928,380	\$ 3,919,043	\$ 2,829,413
Total Senior Debt Service	\$ 3,886,268	\$ 3,905,618	\$ 3,917,393	\$ 3,928,380	\$ 3,919,043	\$ 2,829,413
Senior Debt Service Coverage	4.51	1.78	2.99	2.46	1.55	2.00
Rate Covenant Net Revenue After Senior Debt Service	\$ 13,653,462	\$ 3,052,925	\$ 7,806,097	\$ 5,753,886	\$ 2,169,640	\$ 2,826,088
Ending Balance of Available Funds (2)	\$ 20,141,196	\$ 23,661,968	\$ 18,494,226	\$ 24,416,595	\$ 39,482,417	\$ 30,821,714
<i>Days of Cash on Hand</i>	141	148	104	144	225	164

(1) The data for this schedule comes primarily from the Board's Comprehensive Annual Financial Reports (CAFRs).

(2) For 2009 through 2012, the balance was assumed to be the unrestricted and undesignated cash and cash equivalents and the customer deposits from the CAFRs, and in 2013 and 2014 the total also included the cash and cash equivalent designated for capital projects, which was not previously segregated in the Board's CAFRs.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

SUMMARY OF SIGNIFICANT FORECAST ASSUMPTIONS

**FOR THE SIX FISCAL YEARS ENDING
DECEMBER 31, 2015 THROUGH DECEMBER 31, 2020**

1. Basis of Presentation

Raftelis Financial Consultants, Inc. (“RFC”) has been engaged by the Sewerage and Water Board of New Orleans (the “Board” or “SWBNO”) to evaluate the financial feasibility of proposed improvements to its Water System. The opinion letter to the Board is based upon the Forecast Statement of Revenues, Expenses, Debt Service, and Debt Service Coverage (the “Forecast Statement”) and the Summary of Significant Forecast Assumptions (taken together, the “Feasibility Evaluation”) which presents, to the best of the Board’s knowledge and belief, based upon available information, the expected revenue, expenses, debt service, and debt service coverage for the Board’s Water System during the forecast period.

All schedules in the Feasibility Evaluation have been presented in accordance with the Board’s annual accounting cycle, based upon its fiscal year beginning January 1 and ending December 31 (“Fiscal Year” or “FY”). Accordingly, the forecast reflects the Board’s judgment as of October __, 2015, the date of this forecast, of the expected conditions and the Board’s expected course of action during each of the six fiscal years ending December 31, 2015 through December 31, 2020.

The Feasibility Evaluation has been included as a part of the Official Statement for the Board’s Water System Revenue Bonds, Series 2015 (“Series 2015 Bonds”), which are being issued under the General Water Service Revenue Bond Resolution (“General Bond Resolution”), dated as of May 21, 2014 as supplemented and amended by the First Supplemental Bond Resolution dated as of October __, 2015. This Feasibility Evaluation focuses on evaluating the impact of the Series 2015 Bonds, the proceeds of which (\$100 million in new money) will be used to finance various improvements to the Board’s Water System. The proceeds from the Series 2015 Bonds will not be sufficient to fund all of the Board’s capital needs during the forecast period. To fund the remaining capital needs of the Water System, the Board plans to annually issue additional revenue bonds and utilize cash generated from user rates and charges.

The Feasibility Evaluation is based upon cost, operating, demographic and other relevant information provided by the Board and the debt service schedules provided to the Board by its Financial Advisor, Public Financial Management, Inc. The Feasibility Evaluation is presented in conformity with the methodology for calculating debt service coverage for Indebtedness set forth in the General Bond Resolution. (The definitions of capitalized terms, not specifically provided in this document, are provided in the General Bond Resolution.)

The General Bond Resolution sets forth a three-part debt service coverage test as part of the Rate Covenant in Section 7.01. The Board shall fix, charge and collect rates, fees, and other charges for the use of and the services furnished or to be furnished by the System, and that from time to time and as often as shall appear necessary, revise such rates, fees, and other charges so as to meet the following three independent requirements: (i) for the Tested Fiscal Year to (A) pay

Annual Debt Service on Senior Debt, (B) deposit the necessary amount in any Series Debt Service Reserve Account, (C) to pay Annual Debt Service on Subordinate Debt (including reserves), (D) deposit the necessary amount(s) in the Operating Reserve Fund, and (E) pay all other amounts which the Board may by law or contract be obligated; (ii) for each Fiscal Year to generate Rate Covenant Net Revenues sufficient to at least equal 125% of the Annual Debt Service with respect to Senior Debt and 110% of the aggregate Annual Debt Service with respect to Senior Debt and Subordinate Debt; and (iii) for each Fiscal Year to generate Adjusted Rate Covenant Net Revenues (excluding transfers from the Rate Stabilization Fund to the Revenue Fund and proceeds of Grants) sufficient to at least equal to 100% of the Annual Debt Service.

Forecasts of revenues and expenses are prepared on an accrual basis, and are then adjusted to be consistent with the Board's budgeting process, and the specific requirements of the coverage tests identified in the General Bond Resolution. Compliance with the Rate Covenant is demonstrated on the Forecast Statement under the headings Senior Debt Service Coverage and Total Debt Service Coverage. Since the ratios calculated using Rate Covenant Net Revenues are greater than 1.25 for Senior Debt and 1.10 for Total Debt in each year of the Forecast Statement, the requirements under the first and second parts of the test related to Indebtedness are met. Once adjusted for transfers from the Rate Stabilization Fund and proceeds of Grants, the total debt service coverage on Adjusted Rate Covenant Net Revenues is well above 1.00, satisfying the third part of the test.

The assumptions disclosed herein are those that the Board believes are significant to the Forecast Statement. There will usually be differences between forecasted and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.

2. Background

Overview of Service Area

According to the Census Bureau, the estimated 2013 population of New Orleans is 384,320. The population has increased from an estimate of 208,548 in 2006 following Hurricane Katrina. Over the last four years, the population has increased 3.7%, 2.4%, 2.6%, and 1.5%. Prior to Hurricane Katrina the population was approximately 455,000. Therefore, the City anticipates additional growth in future years.

Governance

SWBNO was created in 1899 by Louisiana State Statutes and established as a “special board” operating independently of the government of the City of New Orleans. Even though SWBNO is a political subdivision of the State of Louisiana, SWBNO must obtain approval by the Board of Liquidation, City Debt and the New Orleans City Council to issue debt, modify millages, or increase rates and charges.

The Board of Directors includes 11 members – the Mayor of New Orleans, who serves as the President of the Board of Directors; two representatives of the Board of Liquidation, City Debt of the City of New Orleans; and eight appointees of the Mayor. The length of terms is four years, with a limit of two terms. The Mayor’s appointees are selected by the Mayor from a list of three names per position that is provided by a ten member selection committee of community leaders. At least one appointee is from each of the City’s five council districts, and the Board, as a whole, attempts to reflect the racial and gender composition of the City.

The Board recently directed staff to develop recommendations for Board committees. Staff has recommended that the Board replace the existing committees: Operations; Finance; Infrastructure and Executive, with the four committees. These committees and their roles are listed below.

- Audit – monitor internal and external compliance and controls efforts
- Governance – provide orientation and training to new Board members and drive Board performance improvement
- Finance and Administration – monitor financial performance for alignment with Board objectives
- Strategy – establish long-term objectives, identify risks, set strategy, and lead planning efforts

One of the primary objectives of the recommended structure is to foster strategic leadership by the Board while delegating operational responsibility and authority to the Executive Director.

The current organizational structure of the Board is included in Exhibit 1. This organizational structure is undergoing a top-down restructuring. There will be five additional Deputy Directors/Superintendents with oversight over the following areas.

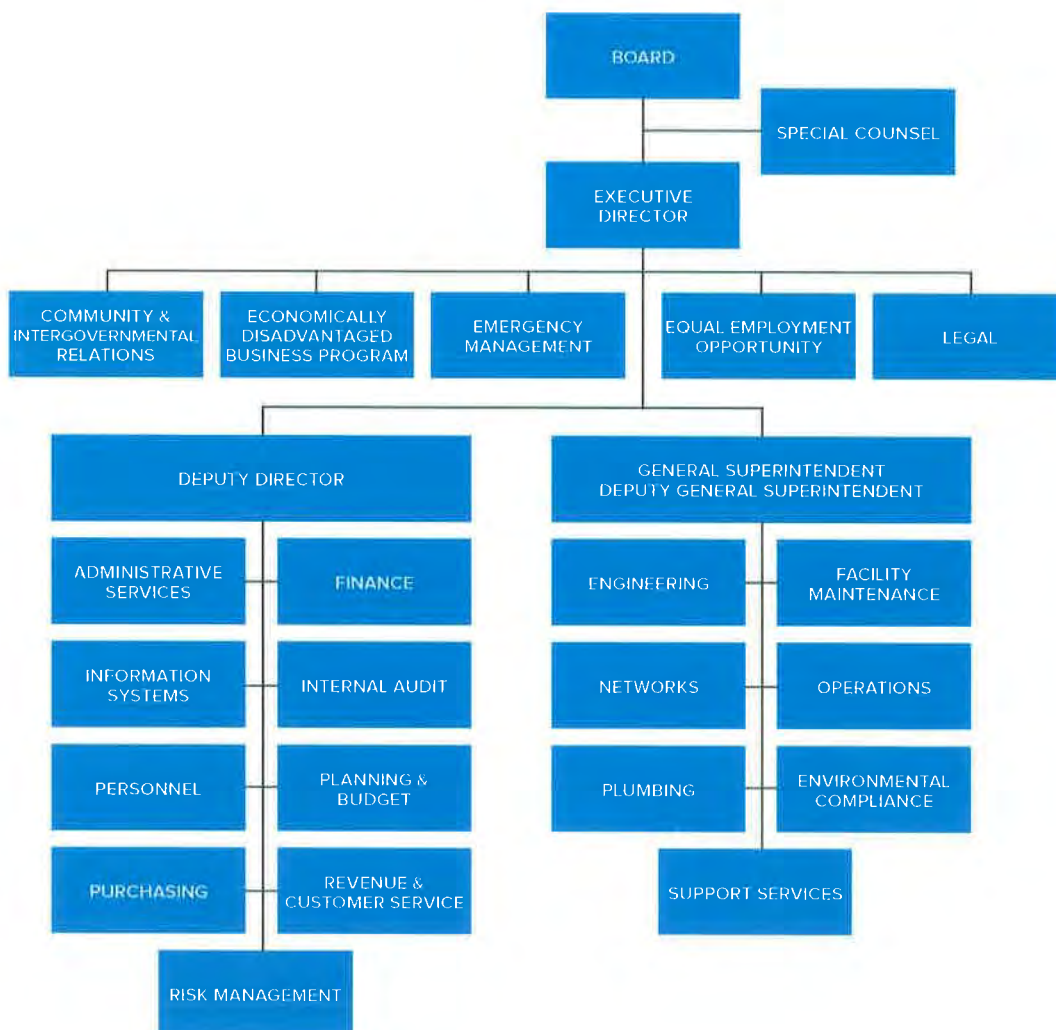
- Security

- Construction
- Logistics
- Communications
- Administration

The General Superintendent position will remain and will be responsible for overseeing operations. The existing Deputy Director position will also remain and will be responsible for financial matters, serving as the CFO of the organization.

Exhibit 1

 SWBNO Organizational Chart as of January 1, 2015



Water System

The water system has two treatment plants. The Carrollton Water Purification Plant (Carrollton Plant) normally treats about 135 million gallons per day of finished water for the east bank of Orleans Parish. Raw water from the Mississippi River is pumped to the Carrollton Plant from

both the Oak Street River Station and the Industrial Avenue River Station. The Algiers Plant, which serves the predominantly residential west bank portion of the parish, purifies about 12 million gallons per day of water. Combined, the two plants treat approximately 56 billion gallons of water per year, removing 20,000 tons of solid material from the raw river water.

The treated water at the two plants is pumped through more than 1,800 miles of mains to more than 124,725 service connections. It is delivered to approximately 291,000 people on the east bank of Orleans Parish and approximately 57,000 people on the west bank. The quality of finished water and river water is tested daily at the Water Quality Laboratory of the Sewerage and Water Board by a staff of chemists, microbiologists and technicians. Samples of drinking water from various points in the distribution system are also analyzed for chemical and microbial parameters at regularly scheduled times.

Water System Projects

There are three major projects currently underway or planned that will rehabilitate and update the Board's water system. These projects are:

- Treatment Plant and Finished Water Pumping Rehabilitation;
- Distribution System Replacement and Rehabilitation; and
- Automated Meter Reading.

This section provides brief descriptions of these projects.

Treatment Plant and Finished Water Pumping Rehabilitation

Routine rehabilitation of equipment, basins, and filters is needed at the Carrollton and Algiers plants due to age and normal wear. In addition, water plant security improvements are planned over the next several years.

Distribution System Replacement and Rehabilitation

The underground pipes of the water system were severely damaged during the flooding following Hurricane Katrina. The weight of the floodwaters caused soils to subside and pavement to buckle, creating problems that continue to arise even now. Leaks are investigated and prioritized, but a shortage of funding and personnel requires many leaks to remain unrepaired for several months. The Board has worked diligently with FEMA to address this issue and anticipates significant progress in this area as a result of a shift from point repairs to line replacements.

Automated Meter Reading

Customer satisfaction is significantly impaired when bills are estimated because usage based on actual meter readings is not available. This problem is compounded when an account is estimated for several months consecutively. The Board is making progress on this and is currently reading about 97.5% of all meters every month. Billing accuracy that meets customer expectations requires accurate meters and timely and accurate meter readings. Change-out of existing manual-read meters with electronic meters and installation of an automated meter reading system would allow all meters to be read electronically.

3. Demand for Services

The Board provides water service to all of the residential, commercial, and industrial customers within the City and Orleans Parish. As mentioned above, some of the population lost following Hurricane Katrina has returned, but the City is still 16% below its pre-Katrina population level. The City expects to continue to grow, and the forecast assumes a moderate level of growth in customers (2% annually) throughout the forecast period. However, like most utilities across the country, the Board is seeing declining per capita consumption. In addition, the Board anticipates there being some price elasticity impact due to the approved annual rate increases. Therefore, the forecast includes a resistance factor, which dampens the growth in water sales. The resistance factor is 1% for the forecast period. As an example, the following equation is used to forecast water sales for 2015.

2016 projected sales = 2015 projected sales * (1 + account growth factor) * (1 – resistance factor)

Exhibit 2 presents the projected number of water accounts and water sales by customer class. Residential customers account for over 85% of total water accounts of the Water System.

Exhibit 2

Water Account and Sales Projections

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Residential						
Customers	111,119	113,341	115,608	117,920	120,278	122,684
Sales (1,000,000 gal)	6,534	6,598	6,662	6,728	6,794	6,860
Sales per Customer (1,000 gal)	59	58	58	57	56	56
Multi-Family						
Customers	4,703	4,797	4,893	4,991	5,091	5,193
Sales (1,000,000 gal)	775	783	791	798	806	814
Sales per Customer (1,000 gal)	165	163	162	160	158	157
Commercial						
Customers	10,497	10,707	10,921	11,139	11,362	11,589
Sales (1,000,000 gal)	3,735	3,772	3,809	3,846	3,884	3,922
Sales per Customer (1,000 gal)	356	352	349	345	342	338
Industrial						
Customers	19	19	19	19	19	19
Sales (1,000,000 gal)	45	45	45	45	45	46
Sales per Customer (1,000 gal)	2,368	2,368	2,368	2,368	2,368	2,421
Dual Service & Metered Fire Service						
Customers	1,519	1,549	1,580	1,612	1,644	1,677
Sales (1,000,000 gal)	2,817	2,844	2,872	2,900	2,929	2,957
Sales per Customer (1,000 gal)	1,854	1,836	1,818	1,799	1,782	1,764
Total						
Customers	127,857	130,413	133,021	135,681	138,394	141,162
Sales (1,000,000 gal)	13,906	14,042	14,179	14,317	14,457	14,600

The Board has a diverse customer base, with the Board's ten largest customers accounting for only approximately 6.22% of annual water revenues in FY 2014. The four largest customers of

the Board (on an annual revenue basis) are Tulane University, the University of New Orleans, NASA, and the Port of New Orleans. All of these customers are highly stable and do not present a risk of significant decrease in consumption during the forecast period. Exhibit 3 shows the largest customers of the Water System by revenues.

Exhibit 3**██████ Largest Water System Customers by Revenue**

Customer's Name	Type of Business	Number of Accounts	Gallons Used	2014 Water Revenue	% of Water Revenue
Tulane University	University	59	275,097,600	\$ 642,740	0.91%
UNO	University	7	301,196,400	609,405	0.86%
NASA	Government	5	307,868,400	583,160	0.82%
Port of New Orleans	Government	44	198,142,800	525,087	0.74%
Hilton Hotel	Hotel	6	207,706,800	424,784	0.60%
Triangle Real Estate	Housing	8	194,894,400	418,179	0.59%
Hyatt Regency Hotel	Hotel	2	171,769,200	327,954	0.46%
LSU Medical	Hospital	17	134,450,400	309,774	0.44%
Tulane Medical	Hospital	6	148,080,000	298,437	0.42%
Touro	Hospital	7	132,991,200	267,868	0.38%
TOTAL				\$ 4,407,388	6.22%

4. Rates and Charges

Each of the Board's three systems (water, sewerage, and drainage) operates as a distinct business enterprise. Appropriate fees and charges have been established to ensure that the Water System can operate on a self-sustaining basis.

The Board initiated a comprehensive water and sewerage rate study in 2010. Over the next two and a half years, the Board worked diligently to identify an appropriate set of rate increases for implementation. Originally a five-year program of rate increases was contemplated, but later it evolved into an eight-year program of annual 10% water rate increases, with the rate increases being applied across-the-board to the monthly base charges and the volumetric charges. The initial increase was implemented on January 1, 2013, so the Board is currently in the third year of the eight-year program.

Current Charges

The Board employs a water rate structure with two components: a monthly service charge and volumetric rates based on water consumed. The monthly service charge increases based on a customer's meter size. The volumetric rate is assessed across a block rate structure consisting of four (4) blocks. As a customer's consumption increases, the rate per thousand gallons increases from the first to second block and then decreases from the second to the third block and from the third to the fourth block. The block cutoffs are as follows:

Block	Volumetric Cutoff (in gallons)
1	0 – 3,000
2	3,001 – 20,000
3	20,001 – 1,000,000
4	Above 1,000,000

Forecast Charges

The rates and charges forecast for 2016 through 2020 assume the approved annual 10% rate increases will be implemented. Even though the rates and charges will increase 61% during the five-year forecast period, we believe the rate and charges will remain reasonable and relatively affordable with respect to peer utilities. See Explanatory Note 12 for an additional discussion on affordability of rates.

Exhibit 4 shows the Board's 2014, current, and forecast water rates.

Exhibit 4**Current and Projected Monthly Water Rates and Charges**

	Fiscal Year						
	2014	2015	2016	2017	2018	2019	2020
Fixed Charge							
<u>Meter Size</u>							
5/8-inch	\$ 4.91	\$ 5.40	\$ 5.94	\$ 6.53	\$ 7.18	\$ 7.90	\$ 8.69
3/4-inch	6.00	6.60	7.26	7.99	8.79	9.67	10.64
1-inch	7.62	8.38	9.22	10.14	11.15	12.27	13.50
1-1/2-inch	12.58	13.84	15.22	16.74	18.41	20.25	22.28
2-inch	16.58	18.24	20.06	22.07	24.28	26.71	29.38
3-inch	37.51	41.26	45.39	49.93	54.92	60.41	66.45
4-inch	65.34	71.87	79.06	86.97	95.67	105.24	115.76
6-inch	128.26	141.09	155.20	170.72	187.79	206.57	227.23
8-inch	189.97	208.97	229.87	252.86	278.15	305.97	336.57
10-inch	257.73	283.50	311.85	343.04	377.34	415.07	456.58
12-inch	302.50	332.75	366.03	402.63	442.89	487.18	535.90
16-inch	402.93	443.22	487.54	536.29	589.92	648.91	713.80
Volumetric Rates							
<u>Block (gallons)</u>							
0 - 3,000	\$ 3.26	\$ 3.59	\$ 3.95	\$ 4.35	\$ 4.79	\$ 5.27	\$ 5.80
3,001 - 20,000	5.57	6.13	6.74	7.41	8.15	8.97	9.87
20,001 - 1,000,000	4.38	4.82	5.30	5.83	6.41	7.05	7.76
Above 1,000,000	3.67	4.04	4.44	4.88	5.37	5.91	6.50
Approved Rate Increases	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

Exhibit 5 shows the current and projected water costs for a residential customer having a 5/8" meter and that uses 5,300 gallons of water per month (the typical residential meter size and median residential monthly usage).

Exhibit 5**Residential Customer Bills, FY 2015 to FY 2020 (Usage of 5,300 gallons per month)**

	<u>Monthly Service Charge</u>	<u>Volumetric Charge</u>	<u>Total Water Bill</u>	<u>% Change</u>
FY 2014	\$ 4.91	\$ 22.59	\$ 27.50	N/A
FY 2015	5.40	24.87	30.27	10.0 %
FY 2016	5.94	27.35	33.29	10.0 %
FY 2017	6.53	30.09	36.62	10.0 %
FY 2018	7.18	33.12	40.30	10.0 %
FY 2019	7.90	36.44	44.34	10.0 %
FY 2020	8.69	40.10	48.79	10.0 %

5. Revenues

In order to meet the financial obligations of the Series 2015 Bonds, other debt service obligations and other water expenses, water revenue requirements must be recovered exclusively from revenues associated with the Water System. Revenues, as defined in the General Bond Resolution, include operating revenues (charges for services and other operating revenues) and non-operating revenues as identified in this Feasibility Evaluation.

Exhibit 6 shows the projection of operating and non-operating revenues during the forecast period. The 2015 projection is based on actual results through August. Operating revenues are primarily comprised of revenues from user rates and charges. These revenues have increased due to the rate increases as well as field account reviews and appropriate billing of the school system. These last two revenue enhancements were included as “Additional Revenue” in the Feasibility Report for the 2014 bond issue, but have been incorporated into the Water Sales line item for this analysis. In addition, there are revenues from plumbing inspection and license fees and other revenues. “Other Revenues” primarily consist of revenue from reconnect and reset fees (\$2.4 million of the \$2.8 million of this revenue in 2014).

Overall, total operating revenues are forecast to increase at an average compound rate of 10.6% per year over the forecast period, which is driven by projected rate increases and expectations for 2% growth in customers. The Board has a high collection rate and this is expected to continue through the forecast period, so no impact from collections has been assumed in the Feasibility Evaluation.

The Board anticipates only a minimal amount of non-operating revenue, which is not projected to increase over the forecast period.

Exhibit 6

Projected Annual Water Revenues

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Operating Revenues						
Water Sales and Delinquent Fees	\$ 77,086,953	\$ 85,302,302	\$ 94,752,091	\$ 105,248,728	\$ 116,908,182	\$ 129,859,271
Plumbing and Inspection Fees	299,729	299,729	299,729	299,729	299,729	299,729
Other Revenues	3,291,782	3,155,081	3,155,081	3,155,081	3,155,081	3,155,081
Additional Revenue	-	-	-	-	-	-
Total Water Revenues	\$ 80,678,463	\$ 88,757,112	\$ 98,206,901	\$ 108,703,538	\$ 120,362,992	\$ 133,314,080
Non-Operating Revenues						
Non-Operating Revenue	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501
Total Non-Operating Revenues	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501	\$ 400,501
Total Revenues	\$ 81,078,964	\$ 89,157,613	\$ 98,607,402	\$ 109,104,039	\$ 120,763,493	\$ 133,714,581

6. Operating and Non-operating Costs

Expenditures are categorized as operating expenses, non-operating expenses, or other budgeted expenditures and transfers. Exhibit 7 shows a combined forecast of operating and non-operating expenses for the Water System. Operating expenses represent normal recurring expenses incurred during the Board's annual accounting cycle based upon its fiscal year ending December 31st. Even though actual operating expenses through August are approximately 6% below budget, projected operating expenses are based on budget information from the FY 2015 water budget to be conservative. Escalation rates differ for each budget line item, but overall the costs are escalated by an average growth rate of 3.6%.

The Board recognizes that its current operating costs are too low to allow it to efficiently and sustainably run the Water System. As a result, the Board is anticipating increases in O&M expenses to get it back in line with national standards for O&M expenses. At the same time, the Board anticipates gaining some efficiencies as it spends more on operations and maintenance and capital improvements. Together, these are accounted for in the Incremental O&M line item. These costs have been incorporated into the budget line items for FY 2015, so there are no costs listed for FY 2015. With these increases, the compounded annual O&M expense increase is 3.6% for the forecast period.

Non-operating expenses include revenue funded capital (also known as PAYGO) and repayments. Revenue funded capital is projected to begin in FY 2015 at \$3,000,000 and increase to \$10,000,000 during the forecast period. The revenue funded capital spending generates revenue to support the Board's debt service coverage ratios. The Water System anticipates making payments to the City's Department of Public Works, to the Drainage System, and to claimants during the forecast period. These expenses are currently accounted for in accounts payable, which will be reduced through the cash payments. Debt service obligations are not included in non-operating costs.

Exhibit 7**Operating and Non-Operating Expenses**

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Operating and Maintenance						
Executive Director	\$ 2,035,305	\$ 2,098,308	\$ 2,163,298	\$ 2,230,341	\$ 2,299,501	\$ 2,370,849
Gen Administrative	1,172,108	1,209,241	1,247,586	1,287,186	1,328,081	1,370,318
Management Services Director	-	-	-	-	-	-
Personnel	1,103,333	1,139,038	1,175,945	1,214,095	1,253,534	1,294,306
Finance	1,042,425	1,075,951	1,110,596	1,146,398	1,183,399	1,221,640
Information Systems	2,234,482	2,302,060	2,371,693	2,443,443	2,517,376	2,593,558
Revenue	4,723,192	4,877,113	5,036,263	5,200,830	5,371,007	5,546,997
Purchasing	278,966	287,767	296,854	306,236	315,924	325,927
Support Services	3,810,058	3,945,534	4,086,134	4,232,063	4,383,537	4,540,781
Miscellaneous Expenses (1)	(1,426,818)	(1,469,623)	(1,513,711)	(1,559,123)	(1,605,896)	(1,654,073)
General Supt.	268,260	276,821	285,664	294,799	304,237	313,988
Operations	22,256,671	23,198,588	24,182,473	25,210,272	26,284,020	27,405,853
Facility Maintenance	5,671,699	5,848,855	6,031,676	6,220,350	6,415,069	6,616,036
Networks	20,880,467	21,235,007	21,601,590	21,980,648	22,372,627	22,777,994
Engineering	2,121,047	2,188,334	2,257,822	2,329,586	2,403,706	2,480,260
Plumbing	616,636	636,789	657,630	679,182	701,472	724,527
Payroll Related	4,892,784	5,103,192	5,323,094	5,552,933	5,793,175	6,044,306
Incremental O&M (2)	-	348,152	693,577	1,072,397	1,408,609	1,742,296
Total O&M Expenses	\$ 71,680,615	\$ 74,301,129	\$ 77,008,184	\$ 79,841,635	\$ 82,729,376	\$ 85,715,562
Non-Operating						
Revenue Financed Capital	\$ 3,000,000	\$ 3,000,000	\$ 4,000,000	\$ 5,000,000	\$ 8,000,000	\$ 10,000,000
Repayments (3)	3,891,044	2,186,000	436,000	436,000	-	-
Total Non-Operating Expenses	\$ 6,891,044	\$ 5,186,000	\$ 4,436,000	\$ 5,436,000	\$ 8,000,000	\$ 10,000,000
Total Costs	\$ 78,571,659	\$ 79,487,129	\$ 81,444,184	\$ 85,277,635	\$ 90,729,376	\$ 95,715,562

(1) Miscellaneous Expenses is negative because it includes a large negative overhead allocation to capital.

(2) The Incremental O&M is a function of additional O&M to become more consistent with other sustainably run sewerage utilities and efficiency gains from the additional O&M funding. For 2015, it has been incorporated into the other line items.

(3) Repayments to DPW, Drainage, and Claimants are the result of arrangements prior to the forecast.

7. Capital Expenditures and Funding Sources

The Capital Improvement Plan (“CIP”) for the Board consists of a variety of water projects that are anticipated to occur over the six-year forecast period. A portion of the CIP relates to projects associated with repairing and replacing aging infrastructure. Much of the Water System was built at least 75 years ago, so there is significant need to recapitalize parts of the Water System. Overall, the Board’s CIP provides a comprehensive list of projects needed to upgrade and maintain the Water System facilities to ensure the Board is in compliance with all federal, state, and local regulations and mandates. The Water System has sufficient capacity to meet current and projected water demand, so the CIP is not focused on system extensions or increased treatment capacity.

Over the six-year period, the Board anticipates spending approximately \$544 million (in 2015 dollars) on capital projects (or approximately \$573 million in escalated dollars)¹. The Board will be responsible for a little under \$330 million (escalated) of the CIP, while other contributors, such as the FEMA or the Corps of Engineers, are projected to spend almost \$243 million (escalated). Exhibit 8 shows the un-escalated and escalated six-year CIPs with the responsibilities of the Board. Under the current assumptions, the Board can fully fund the CIP until 2020, at which time the Board may need to defer a portion of the CIP. Exhibit 8 shows the original CIP and the deferrals.

Exhibit 8

Six-Year CIP

	Fiscal Year						Total
	2015	2016	2017	2018	2019	2020	
Original CIP							
CIP Projects to be Funded by the Board	\$ 58,849,099	\$ 61,971,716	\$ 74,307,067	\$ 73,785,844	\$ 36,742,042	\$ 35,495,982	\$ 341,151,750
CIP Projects to be Funded by Others	111,290,855	27,593,721	27,393,829	22,070,000	22,070,000	22,070,000	\$ 232,488,405
Total Capital Projects	\$ 170,139,954	\$ 89,565,437	\$ 101,700,896	\$ 95,855,844	\$ 58,812,042	\$ 57,565,982	\$ 573,640,155
Adjustments to Board-Funded CIP							
CIP Projects to be Funded by the Board	\$ 58,849,099	\$ 61,971,716	\$ 74,307,067	\$ 73,785,844	\$ 36,742,042	\$ 35,495,982	\$ 341,151,750
Unfunded Amount Deferred - Cumulative	-	-	-	-	-	30,110,563	\$ 30,110,563
CIP Projects to be Funded by the Board - Adjusted	\$ 58,849,099	\$ 61,971,716	\$ 74,307,067	\$ 73,785,844	\$ 36,742,042	\$ 5,385,419	\$ 311,041,187
Unescalated Adjusted CIP							
CIP Projects to be Funded by the Board	\$ 58,849,099	\$ 61,971,716	\$ 74,307,067	\$ 73,785,844	\$ 36,742,042	\$ 5,385,419	\$ 311,041,187
CIP Projects to be Funded by Others	111,290,855	27,593,721	27,393,829	22,070,000	22,070,000	22,070,000	\$ 232,488,405
Total Capital Projects	\$ 170,139,954	\$ 89,565,437	\$ 101,700,896	\$ 95,855,844	\$ 58,812,042	\$ 27,455,419	\$ 543,529,592
Escalated - Adjusted CIP							
CIP Projects to be Funded by the Board	\$ 58,849,099	\$ 63,830,867	\$ 78,832,367	\$ 80,627,784	\$ 41,353,492	\$ 6,243,177	\$ 329,736,787
CIP Projects to be Funded by Others	111,290,855	28,421,533	29,062,113	24,116,485	24,839,979	25,585,179	\$ 243,316,144
Total Capital Projects	\$ 170,139,954	\$ 92,252,400	\$ 107,894,481	\$ 104,744,269	\$ 66,193,471	\$ 31,828,356	\$ 573,052,931

The Board plans to issue additional debt annually to address capital needs during the forecast period. Exhibit 9 shows the six-year capital spending plan for the water system, along with projected funding sources. Exhibit 9 excludes capital expenditures that are planned but will be funded beyond the forecast period.

¹ The CIP was prepared in 2015 dollars so costs have been escalated 3.0% annually.

Exhibit 9**■ ■ ■ ■ Six-Year Capital Funding Projections**

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Beginning Unspent Bond Proceeds	\$ 51,745,532	\$ 88,875,709	\$ 48,629,916	\$ 13,996,657	\$ 2,892,501	\$ 1,039,009
Sources of Funds						
Current Revenue Funded Capital	\$ 3,000,000	\$ 3,000,000	\$ 4,000,000	\$ 5,000,000	\$ 8,000,000	\$ 10,000,000
Revenue Bond Proceeds	106,514,052	26,375,000	52,750,000	84,400,000	36,925,000	-
Participation by Others	111,290,855	28,421,533	29,062,113	24,116,485	24,839,979	25,585,179
Total Sources	\$ 272,550,438	\$ 146,672,242	\$ 134,442,029	\$ 127,513,142	\$ 72,657,480	\$ 36,624,188
Uses of Funds						
Capital Improvement Program	\$ 170,139,954	\$ 94,167,326	\$ 112,695,372	\$ 112,220,641	\$ 66,193,471	\$ 36,624,188
Capitalized Interest Fund	5,194,444	1,375,000	2,750,000	4,400,000	1,925,000	-
Debt Issuance Costs	1,733,331	375,000	750,000	1,200,000	525,000	-
Debt Service Reserve Fund	6,607,000	2,125,000	4,250,000	6,800,000	2,975,000	-
Total Uses	\$ 183,674,729	\$ 98,042,326	\$ 120,445,372	\$ 124,620,641	\$ 71,618,471	\$ 36,624,188
Ending Unspent Bond Proceeds	\$ 88,875,709	\$ 48,629,916	\$ 13,996,657	\$ 2,892,501	\$ 1,039,009	\$ -
Carryforward Bond Projects	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,110,563

The Board plans to pay for a portion of the projected capital needs with revenue generated from utility operations. The level of this revenue funded capital is projected to increase during the forecast period from \$3,000,000 in FY 2015 to \$10,000,000 in FY 2020. Overall, it is expected to fund approximately 6% of the Board-funded portion of the six-year CIP. The revenue funded capital will support the Board's debt service coverage ratios, as shown on the Forecast Statement.

8. Financing Plan

The Board has worked with its underwriters, financial advisors, consulting engineers, and qualified independent consultants (the “Financing Team”) to evaluate various financing strategies for the CIP projects funded with the Series 2015 Bonds and future revenue bonds. The Board has selected a financing plan designed to accomplish the following objectives:

- Conform with credit criteria established by rating agencies;
- Minimize debt service and related charges; and
- Provide funds as needed and in the most cost-effective manner.

The proceeds from the Series 2015 Bonds will be available in August 2015 to fund the capital projects described in Explanatory Note 7.

Exhibit 10

Sources and Uses of Series 2015 Bonds*

	<u>Series 2015 Bonds</u>
Sources	
Bond Proceeds:	
Par Amount	\$ 100,000,000
Premium	6,514,052
Subtotal	<u>\$ 106,514,052</u>
Total	<u><u>\$ 106,514,052</u></u>
Uses	
Project Fund Deposits	
Project Fund	\$ 92,979,277
Other Fund Deposits	
Water Capitalized Interest	\$ 5,194,444
Debt Service Reserve Fund	6,607,000
Subtotal	<u>\$ 11,801,444</u>
Delivery Date Expenses	
Cost of Issuance	\$ 998,331
Underwriter's Discount	735,000
Subtotal	<u>\$ 1,733,331</u>
Total	<u><u>\$ 106,514,052</u></u>

* Preliminary, subject to change.

Exhibit 11 shows the debt service schedule for current Outstanding Indebtedness for the Water System. The Board's Indebtedness has been classified as Senior Indebtedness, Subordinated Indebtedness, or Other Debt Service. Senior and Subordinate Indebtedness are consistent with the current General Bond Resolution. The Board currently has no Subordinate Indebtedness.

Exhibit 11**Existing Long-Term Debt Service**

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Senior Debt Service						
Series 2014	\$ 3,500,000	\$ 5,501,250	\$ 7,700,000	\$ 7,693,000	\$ 7,700,000	\$ 7,690,000
Total Senior Debt	\$ 3,500,000	\$ 5,501,250	\$ 7,700,000	\$ 7,693,000	\$ 7,700,000	\$ 7,690,000
Other Debt Service (1)						
GO Zone Repayment	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836
Total Other Debt	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836
Total Existing Debt Service	\$ 4,140,836	\$ 6,142,086	\$ 8,340,836	\$ 8,333,836	\$ 8,340,836	\$ 8,330,836

(1) This debt service is excluded from total debt service coverage calculations.

Exhibit 12 shows the forecasted debt service beyond 2015, which includes annual issues throughout the forecast period. The assumptions used to project future debt service include:

- 30-year term;
- 5.5% interest rate;
- 1 year of capitalized interest;
- 1.5% issuance costs;
- 8.5% debt service reserve requirement;
- Equal annual total debt service payments.

Using these assumptions, it is anticipated the size of future bond issues during the forecast period (issued after the Series 2015 Bonds) will be as follows:

Series 2016 Bonds – \$27,750,000
 Series 2017 Bonds – \$55,500,000
 Series 2018 Bonds – \$88,800,000
 Series 2019 Bonds – \$38,850,000
 Series 2020 Bonds – \$0

Exhibit 12**Projected Debt Issuances after 2015**

	Series 2016 Bonds	Series 2017 Bonds	Series 2018 Bonds	Series 2019 Bonds	Series 2020 Bonds
Net Proceeds	\$22,500,000	\$45,000,000	\$72,000,000	\$31,500,000	\$0
Capitalized Interest (1 yr)	\$2,750,000	\$5,500,000	\$8,800,000	\$3,850,000	\$0
Cost of Issuance	\$375,000	\$750,000	\$1,200,000	\$525,000	\$0
Debt Service Reserve Fund	\$2,125,000	\$4,250,000	\$6,800,000	\$2,975,000	\$0
Total	\$27,750,000	\$55,500,000	\$88,800,000	\$38,850,000	\$0

	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Grand Total
2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
2018	426,398	1,482,960	1,909,350	-	-	-	-	-	-	-	-	-	-	-	-	1,909,350
2019	449,851	1,458,498	1,908,350	899,703	2,918,996	3,818,699	-	-	-	-	-	-	-	-	-	5,728,049
2020	474,593	1,434,758	1,909,350	949,188	2,889,513	3,838,699	1,518,698	4,561,220	6,109,919	-	-	-	-	-	-	11,837,967
2021	500,696	1,408,654	1,909,350	1,001,392	2,817,308	3,818,699	1,602,227	4,507,892	6,109,919	700,974	1,972,115	2,673,089	-	-	-	14,511,057
2022	528,234	1,381,115	1,909,350	1,056,468	2,762,231	3,818,699	1,690,349	4,418,570	6,109,919	739,528	1,933,582	2,673,089	0	0	0	14,511,057

Exhibit 13 shows the forecast debt service, which includes annual issues throughout the forecast period. It should be noted that due to the one year of capitalized interest, there would not be debt service from the Series 2020 Bonds during the forecast period if any bonds were projected.

Overall, these assumptions are very conservative, and it should be anticipated that the actual debt service will have lower costs and can be structured to better meet the objectives of the Board.

Exhibit 13**Projected Long-Term Debt Service**

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Senior Debt Service						
Existing Debt	\$ 3,500,000	\$ 5,501,250	\$ 7,700,000	\$ 7,693,000	\$ 7,700,000	\$ 7,690,000
Proposed Series 2015		-	6,605,000	6,604,750	6,605,500	6,607,000
Projected Series 2016			-	1,996,216	1,996,216	1,996,216
Projected Series 2017				-	3,992,433	3,992,433
Projected Series 2018					-	6,387,892
Total Senior Debt	\$ 3,500,000	\$ 5,501,250	\$ 14,305,000	\$ 16,293,966	\$ 20,294,149	\$ 26,673,541
Subordinate Debt Service						
None	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Subordinate Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Debt Service (1)						
GO Zone Repayment	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836
Total Other Debt	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836	\$ 640,836
Total Proposed Debt Service	\$ 4,140,836	\$ 6,142,086	\$ 14,945,836	\$ 16,934,802	\$ 20,934,985	\$ 27,314,377

(1) This debt service is excluded from total debt service coverage calculations.

9. Additional Bonds Test

As the second issue under the General Bond Resolution, the issuance of the Series 2015 Bonds is subject to the additional bonds test. Under the General Bond Resolution, the Board may issue additional bonds only if any one of two requirements, or tests, set forth in Section 4.03(h), are met. Reproduced below are the requirements for the tests.

A certificate of (A) a Qualified Independent Consultant, stating that based on the Board's financial records for a Test Period, the Board would have been able to meet the Rate Covenant in Section 7.01, taking into account (i) the maximum Annual Debt Service on the proposed Series of Additional Bonds in the current or any future Fiscal Year, (ii) the Additional Net Revenues from the rates, fees and other charges adjusted to reflect any rate increases that had not been in effect throughout the Test Period but that have been approved by the Board, the Board of Liquidation, and the City at the time of the delivery of the proposed Series of Additional Bonds to go into effect within the following five years; and (iii) additional Net Revenues that the Board may realize from the addition to the System of the assets it proposes to finance through the issuance of the proposed Series of Additional Bonds or other funding sources within the following five years or (B) the Authorized Officer of the Board stating that based on the Board's financial records for a Test Period, the Board would have been able to meet the Rate Covenant in Section 7.01, taking into account the maximum annual Debt Service on the proposed Series of Additional Bonds. In making the certifications required under this paragraph, the Qualified Independent Consultant, as applicable, shall determine and utilize the Additional Indebtedness Test Net Revenues in place of the Rate Covenant Net Revenues in determining whether the Board would have been able to meet the Rate Covenant in Section 7.01.

Both tests are based on a historical Test Period, which is a consecutive 12-month period within the 24 months prior to the issuance of the proposed bonds. Test A allows for adjustments based on approved rate increases for up to five years and based on additional revenues from the assets financed through the additional bonds, while Test B allows for no adjustments to revenues. Exhibit 14 shows the Senior Debt service by year including the Series 2015 Bonds with the Maximum Annual Debt Service highlighted. Exhibit 15 shows that the Board is able to pass Test A. The adjustments included in Test A are five 10% rate increases, one of which was implemented January 1, 2015 and four are approved for implementation on January 1 of each year, 2016 through 2019.

Exhibit 14**Maximum Annual Debt Service**

Year	Amount	Year	Amount	Year	Amount
2015	\$ 4,140,836	2025	\$ 13,133,500	2035	\$ 13,135,250
2016	\$ 6,142,086	2026	\$ 13,137,000	2036	\$ 13,136,750
2017	\$ 14,945,836	2027	\$ 13,138,250	2037	\$ 13,133,500
2018	\$ 14,938,586	2028	\$ 13,136,750	2038	\$ 13,139,750
2019	\$ 14,946,336	2029	\$ 13,132,000	2039	\$ 13,139,000
2020	\$ 14,937,836	2030	\$ 13,133,500	2040	\$ 13,140,500
2021	\$ 14,928,336	2031	\$ 13,135,250	2041	\$ 13,133,000
2022	\$ 14,932,336	2032	\$ 13,131,500	2042	\$ 13,140,750
2023	\$ 13,132,750	2033	\$ 13,131,750	2043	\$ 13,136,750
2024	\$ 13,138,750	2034	\$ 13,135,000	2044	\$ 13,140,250

Exhibit 15**Additional Bonds Test**

	Adjusted Actual (1) - Test A	Actual (FY 14) - Test B
Sales of Water and Delinquent Fees (2)	\$ 111,891,745	\$ 70,818,255
Other Operating Revenue	3,180,286	3,180,286
	\$ 115,072,031	\$ 73,998,541
Total O&M	\$ 88,562,278	
Less: Depreciation	18,844,752	
Less: Provision for doubtful accounts	1,151,767	
Net O&M	\$ 68,565,759	\$ 68,565,759
Additional Indebtedness Test Net Revenues	\$ 46,506,272	\$ 5,432,782
Maximum Annual Senior Debt Service	\$ 14,946,336	\$ 14,946,336
Maximum Annual Total Debt Service	\$ 14,946,336	\$ 14,946,336
Maximum Annual Senior Debt Service Coverage	3.11	0.36
Required	1.25	1.25
Maximum Annual Total Debt Service Coverage	3.11	0.36
Required	1.10	1.10
Pass (Yes/No)	Yes	No

(1) Assumes five approved 10% rate increases

(2) Delinquent fees comprise less than 5% of this revenue so only 95% of this line item was adjusted.

10. Fund Balances

The Board was able to provide the services necessary to allow for residents to return following Hurricane Katrina because it had strong financial reserves when Hurricane Katrina struck the City. Therefore, the Board understands the importance of maintaining appropriate levels of operating and capital reserves. The General Bond Resolution requires an Operating Reserve of 90 days of annual operating expenses (90 days cash on hand). However, the Board has set a target of having at least 180 days cash on hand between the Operating Fund and the Rate Stabilization Fund. As can be seen in Exhibit 16, the Board is just below 180 days in FY 2016 and FY 2017 and in excess of this target the rest of the forecast period, particularly at the end of the forecast period.

Exhibit 16

Fund Balances

Available Fund Balances

	Fiscal Year						
	Initial	2015	2016	2017	2018	2019	2020
Beginning Unrestricted Balance (1)	\$ 30,821,714	\$ 30,821,714	\$ 29,188,183	\$ 32,716,582	\$ 34,933,964	\$ 41,825,566	\$ 50,924,698
Sources							
Operating Revenues		\$ 80,678,463	\$ 88,757,112	\$ 98,206,901	\$ 108,703,538	\$ 120,362,992	\$ 133,314,080
Non-Operating Revenues		400,501	400,501	400,501	400,501	400,501	400,501
Total Sources		\$ 81,078,964	\$ 89,157,613	\$ 98,607,402	\$ 109,104,039	\$ 120,763,493	\$ 133,714,581
Uses							
Operating Expenses		\$ 71,680,615	\$ 74,301,129	\$ 77,008,184	\$ 79,841,635	\$ 82,729,376	\$ 85,715,562
Transfer to Operating Reserve Fund (2)	17,674,672	17,674,672	646,154	667,493	698,659	712,046	736,320
Transfer to Rate Stabilization Fund		-	-	-	-	-	-
Repayments		3,891,044	2,186,000	436,000	436,000	-	-
Debt Service		4,140,836	6,142,086	14,945,836	16,934,802	20,934,985	27,314,377
Revenue Funded Capital		3,000,000	3,000,000	4,000,000	5,000,000	8,000,000	10,000,000
Total Uses	\$ 17,674,672	\$ 100,387,167	\$ 86,275,369	\$ 97,057,512	\$ 102,911,096	\$ 112,376,407	\$ 123,766,259
Remaining Unrestricted Funds for Transfer	\$ 13,147,042	\$ 11,513,511	\$ 2,882,244	\$ 1,549,890	\$ 6,192,943	\$ 8,387,086	\$ 9,948,323
Total Available Funds - End of Year Balances							
Remaining Unrestricted Funds	\$ 13,147,042	\$ 11,513,511	\$ 14,395,755	\$ 15,945,645	\$ 22,138,588	\$ 30,525,674	\$ 40,473,996
Operating Reserve Fund	17,674,672	17,674,672	18,320,826	18,988,319	19,686,978	20,399,024	21,135,344
Rate Stabilization Fund		-	-	-	-	-	-
Total	\$ 30,821,714	\$ 29,188,183	\$ 32,716,582	\$ 34,933,964	\$ 41,825,566	\$ 50,924,698	\$ 61,609,341
Days of O&M Cash on Hand (3)		204	161	166	191	225	262
(Bond Target of 90 days)							

(1) The beginning balance for 2015 is comprised of undesignated and designated unrestricted cash and cash equivalents as well as customer deposits from the 2014 CAFR.

(2) 90 days of O&M expenses as required in the General Sewerage Service Revenue Bond Resolution.

(3) The Board has an internal target of 180 days.

11. Bill Comparisons

One of the key objectives of the Board is to maintain rates and charges at a sufficient level to provide revenues to recover existing operating costs and capital costs associated with the issuance of the Series 2015 Bonds and future bonds. The Board's current rates became effective January 1, 2015 and included the third of the approved eight annual 10% rate increases. The Feasibility Evaluation assumes the remaining annual approved rate increases will be implemented through 2020. Although the Board and City Council have taken steps to address the need to set rates and charges at a level sufficient to address total system revenue requirements, the Board also considers objectives to maintain rates that are reasonably affordable and provide a competitive cost environment relative to other utilities. Exhibit 17 shows a comparison of water costs with other peer communities. The cost comparison is based upon a projected monthly bill for a residential customer with a 5/8" meter (some utilities listed use a 3/4" meters for residential customers) and 5,300 gallons of water usage and a non-residential customer with a 2" meter and 374,000 gallons of water usage.

As shown, the annual water bill for a residential customer using 5,300 gallons of water per month is \$30.27, or \$363.24 per year. Orleans Parish has an estimated median household income ("MHI") of \$39,849 based on an assumed median household income of \$36,681 in 2012 escalated 2.8% annually. The ratio of annual water costs for a typical residential customer to MHI is approximately 0.91%. This percentage falls well below the industry's most commonly used affordability metric, the guideline of 2.00% as identified by the EPA's Financial Capability Assessment publication.²

Exhibit 17

Comparison of Water Bills with Other Representative Communities as of April 2015

City	Monthly Bill (5,300 gallons/month)	Monthly Bill (374,000 gallons/month)
Birmingham	\$ 39.84	\$ 1,805.72
Atlanta	\$ 36.63	\$ 3,073.51
New Orleans	\$ 30.27	\$ 1,788.50
Houston	\$ 27.43	\$ 1,544.87
Jackson	\$ 22.47	\$ 1,605.00
Baton Rouge	\$ 21.89	\$ 547.45
St. Louis	\$ 20.34	\$ 861.52
Mobile	\$ 19.64	\$ 956.95
Nashville	\$ 18.78	\$ 1,098.35
Dallas	\$ 17.13	\$ 1,315.80
Memphis	\$ 16.90	\$ 707.52
Little Rock	\$ 13.90	\$ 781.43

² Combined Sewer Overflows: Guidance for Financial Capability Assessment and Schedule Development (Environmental Protection Agency, March 1997) page 19.

During the forecast period, the monthly water bill for a typical customer will increase from \$30.27 to \$48.79. We anticipate that the bills for the representative communities will also increase during this period.

12. Current Issues

There are three issues which the Board is particularly focused on evaluating and managing to the best of its ability. These issues include: 1) affordability of water service; 2) stresses to net revenues, particularly related to declining per capita consumption; and 3) addressing the remaining capital plan after the forecast period. The following paragraphs discuss some of the analyses and planning associated with these issues.

Affordability

Historically, water rates nationally have been very low, so the affordability of water service has not been a concern. In recent years, water rates have been increasing as the need to repair and replace aging infrastructure have required increasing capital investments. Between 2004 and 2014, water rates nationally increased 5.5% annually, while the CPI only increased 2.4% annually.³ This trend is expected to continue, meaning that affordability concerns are going to increase. As part of the Feasibility Evaluation, we calculated the customer impacts relative to median household income, which is typically used as a high-level test of affordability.

Exhibit 18 shows that even with the eight-year program of rate increases the projected cost of water service for a typical customer will remain below 2.0% of projected median household income and the median household effective buying income. This analysis indicates that the cost of water service in New Orleans will remain affordable, based on a commonly used test, even with the approved rate increases.

Exhibit 18

Forecast Affordability Ratios

	2015	2016	2017	2018	2019	2020
Median Household Income	\$ 39,849	\$ 40,965	\$ 42,112	\$ 43,291	\$ 44,503	\$ 45,749
Median Household Effective Buying Income	\$ 31,098	\$ 31,969	\$ 32,864	\$ 33,784	\$ 34,730	\$ 35,702
Average Monthly Bill						
Water	\$ 30.27	\$ 33.29	\$ 36.62	\$ 40.30	\$ 44.34	\$ 48.79
% of MHI						
Water	0.91%	0.98%	1.04%	1.12%	1.20%	1.28%
% of MHIHEBI						
Water	1.17%	1.25%	1.34%	1.43%	1.53%	1.64%

Even though this analysis indicates the Board's rates are affordable in general, the Board recognizes that a portion of its customer base may be impacted more significantly by the proposed increases in water rates and charges. As such, the Board is evaluating mechanisms that could help ensure water service remains affordable to its low-income customers.

³ AWWA & Raftelis Financial Consultants, Inc. 2014 Water and Wastewater Rate Survey.

Net Revenue Impacts

There are two ways that Net Revenues could be materially lower than projected in the Feasibility Evaluation: 1) revenues are lower than expected; or 2) operating expenses are higher than expected. The Board has examined these risks and believes the risk of lower revenues is of greater concern and has modeled different scenarios assuming lower revenues. While the Board has some control over operating expenses, it does not have control over the amount of water used by its customers. The water industry is being impacted by the trend of declining per capita consumption. Efforts to promote conservation and efficient water use have sensitized customers. Perhaps more importantly, the evolution of more water efficient fixtures and appliances has also impacted per capita demand.

The Feasibility Evaluation does incorporate some level of declining per capita demand by applying a resistance factor. As mentioned in Explanatory Note 3, the resistance factor is 1.0% for the forecast period. If demand is more negatively impacted than expected, this will affect the Water System's revenue stream. To evaluate the potential impact, we increased the resistance factor by 2.0% each of the first three years and 1.0% in the last three years of the forecast period. Therefore, the resistance factor is assumed to be 3% in 2016, 2017, and 2018, and 2% for the remainder of the forecast period. The increase in the resistance factor was ramped down after three years because there will likely be some demand hardening and each reduction propagates through the remainder of the forecast. Even though this stress test focuses on declining consumption, it shows the impact of lower Net Revenues, which could also be attributable to other factors. Exhibit 19 shows the impact of the increased resistance factor on coverage. Even with the increased resistance factors, the Board meets the Rate Covenant for the entire forecast, with the exception of FY 2017 where it is just under 1.25. Nonetheless, the Board will monitor revenues, particularly related to resistance to increasing rates, to ensure that it satisfies the Rate Covenant. The Board will adjust its financing plan as necessary, which could include delaying capital improvements or limiting the increase in operating expenses. The stress test did not assume any decline in operating expenses even with the lower consumption, so there should be some opportunity to reduce operating expenses if necessary.

Exhibit 19

Debt Service Coverage under Stress Test for Declining Consumption

	Fiscal Year					
	2015	2016	2017	2018	2019	2020
Forecast Debt Service Coverage	2.69	2.70	1.51	1.80	1.87	1.80
Stress Test Debt Service Coverage	2.69	2.39	1.24	1.41	1.48	1.42

Capital Plan after 2020

The Feasibility Evaluation has considered a six-year forecast, FY 2015 through FY 2020. Even though the capital improvements identified and funded during this period will help the Board become a more sustainable utility, there are additional projects that have been identified beginning in FY 2020 which will be critical to the Board's long-term success. Currently, the ten-year CIP identifies approximately \$498 million in the four-year period from FY 2021 through FY 2024, including substantial funding needs in FY 2021. These projects are not funded by the bond issues contemplated in this Feasibility Evaluation. Even though it is likely that the timing

and size of these projects in FY 2021 and beyond will evolve over time, the Board recognizes it is likely that additional rate increases will be necessary to be able to fund the capital program after FY 2020 and anticipates beginning to further evaluate this need well in advance of FY 2020 as the timing and costs become more firm.

DRAFT ENGINEERING REPORT

WATER AND SEWERAGE REVENUE BONDS SERIES 2015

BLACK & VEATCH PROJECT NO. 188512

PREPARED FOR

Sewerage and Water Board of New Orleans

9 OCTOBER 2015

I. Table of Contents

Acronyms.....	1
I. Introduction	3
A. Purpose	3
B. Scope	3
C. Black & Veatch Qualifications	4
II. Executive Summary	6
A. Organization and Management Conclusions	6
B. Water System Conclusions.....	6
C. Sewerage System Conclusions.....	8
D. Drainage System Conclusions	9
E. CIP Conclusions.....	9
III. Organization and Management	11
A. Organization and Structure	11
B. Key Operating Units	18
C. Administrative and Support Units	24
D. Strategic Plan	33
E. Conclusions.....	34
IV. Water System	36
A. Introduction	36
B. Water Supply	36
C. Water System Planning Initiatives and Compliance.....	38
D. Water Treatment Plants.....	44
E. Water Pumping and Power.....	48
F. Distribution System	50
G. Water System Conclusions.....	50
V. Sewerage System	52
A. Introduction	52
B. Consent Decree for Sewerage System	52
C. Relevant Regulatory Permits	55
D. Overall Performance of SWBNO's Sewage Treatment Plants	58
E. East Bank Sewage Treatment Plant.....	59
F. West Bank Sewage Treatment Plant.....	62
G. Sewage Collection and Pumping.....	64
H. Sewerage System Conclusions.....	66
VI. Drainage System	68

A. SELA Projects.....	68
B. Drainage Pump Stations.....	71
C. Drainage System Conclusions.....	71
VII. Capital Improvement Program.....	73
A. Overview.....	73
B. Fiscal Years 2015-2020 Capital Improvement Program.....	74
C. Conclusions.....	85

LIST OF TABLES

Table 1—Current Number of SWBNO Employees and Vacancies (as of May 11, 2015)	17
Table 2—SWBNO Internal Customer Service Performance Metrics.....	27
Table 3—Water System Capacities.....	36
Table 4—SWBNO’s Water Pumped and Consumed.....	43
Table 5—Carrollton WPP Annual Plant Water Treated per Day	45
Table 6—Algiers WPP Annual Plant Water Treated per Day.....	47
Table 7—Summary of Distribution Work Orders.....	50
Table 8—Current NPDES Key Effluent Limitations	56
Table 9—Unauthorized Sanitary Sewer Discharges for East Bank Portion of System	65
Table 10—Capital Improvement Program (Fiscal Years 2015-2020)	74
Table 11—Water Capital Improvement Program.....	75
Table 12—Sewerage Capital Improvement Program	79
Table 13—Drainage Capital Improvement Program.....	82

LIST OF FIGURES

Figure 1—Organizational Chart.....	14
Figure 2—Overview of the SWBNO Water System	37
Figure 3—Overview of the SWBNO Sewerage System	53
Figure 4—Overview of the SWBNO Drainage System	70

Acronyms

AMI—Advanced Metering Infrastructure
AWWA—American Water Works Association
BMP—Best Management Practice
CAA—Clean Air Act
CAFR—Comprehensive Annual Financial Report
CAM—Customer Account Management
CCR—Consumer Confidence Report
CCTV—Closed Circuit Television
CIP—Capital Improvement Program
CIPP—Cured In Place Pipe
COBOL—Common Business Oriented Language
CWA—Clean Water Act
D/DBPR—Disinfectants and Disinfection By-Products Rule
DMR—Discharge Monitoring Reports
DOC—Dissolved Organic Carbon
DPW—Department of Public Works
DROP—Deferred Retirement Option Plan
ESSA—Emergency Sanitary Sewer Assessment
ESWTR—Enhanced Surface Water Treatment Rule
EWOCDS—Early Warning Organics Contamination Detection System
FBBR—Filter Backwash Recycling Rule
FBI—Fluidized Bed Incinerator
FEMA—Federal Emergency Management Agency
GC/MS—Gas Chromatograph/Mass Spectrometer
GHRS—Government Human Resources Services
GIS—Geographic Information System
GWR—Groundwater Rule
HAA5—Five Haloacetic Acids
HMGP—Hazard Mitigation Grant Program
Hz—Hertz
IVR—Interactive Voice Response
LDEQ—Louisiana Department of Environmental Quality
LRAA—Locational Running Annual Averages
LT2ESWTR—Long Term 2 Enhanced Surface Water Treatment Rule
MCL—Maximum Contaminant Level
mgd—Million Gallons per Day

mg/dscm—Milligrams per Dry Standard Cubic Meter
mg/L—milligrams per Liter
MQL—Minimum Quantification Levels
MRDL—Maximum Residual Disinfectant Limit
MS4—Municipal Separate Storm Sewer System
MW—Megawatts
NPDES—National Pollutant Discharge Elimination System
NTU—Nephelometric Turbidity Unit
PC—Personal Computer
PPE—Personal Protective Equipment
PSI—Pounds per Square Inch
RAA—Running Annual Average
RAS—Return Activated Sludge
RFP—Request for Proposal
RFQ—Request for Qualifications
RMAP—Remedial Measures Action Plan
RTCR—Revised Total Coliform Rule
SCADA—Supervisory Control and Data Acquisition
SDWA—Safe Drinking Water Act
SELA—Southeast Louisiana
SIU—Significant Industrial User
SSO—Sanitary Sewer Overflow
SWBNO—Sewerage and Water Board of New Orleans
SWP3—Stormwater Pollution Prevention Plan
TCR—Total Coliform Rule
TOC—Total Organic Carbon
TSS—Total Suspended Solids
TTHM—Total Trihalomethanes
UCMR-3—Unregulated Contaminant Monitoring Rule
µg/L—Micrograms per Liter
USACE—United States Army Corps of Engineers
USEPA—United States Environmental Protection Agency
USDOJ—United States Department of Justice
WAS—Waste Activated Sludge
WPP—Water Purification Plant

II. Introduction

A. PURPOSE

The purpose of this report (Report) is to summarize the findings of engineering studies performed by Black & Veatch Corporation (Black & Veatch) related to the water, sewerage and drainage systems of the Sewerage and Water Board of New Orleans (SWBNO) in conjunction with the issuance of a maximum of \$200,000,000 of Water and Sewerage, Service Revenue (Series 2015) bonds.

In the preparation of this Report, Black & Veatch performed site visits of SWBNO's major water, sewerage and drainage facilities during the months of May and June 2015, collected and reviewed basic operating data, and conducted personal interviews with key Water System, Sewerage System, and Drainage System operating, maintenance, engineering, and financial staff.

Subject to the limitations set forth herein, this Report was prepared for SWBNO by Black & Veatch and is based on information not within the control of Black & Veatch. Black & Veatch has not been requested to make an independent analysis, to verify the information provided to it, or to render any independent judgment of the validity of the information provided by others. As such, Black & Veatch cannot, and does not, guarantee the accuracy thereof.

In conducting the analysis and in forming an opinion of future operations summarized in this Report, Black & Veatch has made certain assumptions with respect to conditions, events, and circumstances that may occur in the future. The methodology utilized by Black & Veatch in performing the analysis follows generally accepted practices. While Black & Veatch believes the assumptions are reasonable and appropriate, and the methodology valid, actual results may differ materially from those anticipated, as influenced by the conditions, events, and circumstances that actually occur that are unknown at this time and/or which are beyond the control of Black & Veatch.

SWBNO may only distribute the complete Report to third parties, including the above statements and not parts thereof. Any distribution of this Report, or any excerpt thereof, to third parties shall be at SWBNO's sole risk. SWBNO's duty to distribute only the complete Report, including the above statements, shall not apply to internal SWBNO documents derived from the Report that come within the scope of applicable records laws and are requested under such laws by interested citizens.

B. SCOPE

This Report addresses the organization and management, physical condition, adequacy of system capacity, operation and maintenance practices, and staffing levels of SWBNO's water, sewerage, and drainage systems. It also provides a review of the proposed Capital Improvement Program (CIP) of SWBNO.

This Report has been prepared in conjunction with the issuance of Water and Sewerage Service Revenue Bonds, Series 2015. The purpose of the Series 2015 bonds is to pay the costs of constructing system improvements, extensions, betterments and repairs to the water and sewerage systems.

C. BLACK & VEATCH QUALIFICATIONS

Black & Veatch is one of the largest and most experienced engineering, construction, and consulting firms in the United States specializing in utility engineering. The firm's experience includes the planning, design, operational analysis, and construction of water, wastewater, and energy generation and transmission systems. In addition, the firm has extensive experience in assisting utilities with management and financial aspects of their operations. The firm has been engaged in more than 40,000 projects for over 7,000 clients, including utilities owned by municipalities ranging in size from small villages to large metropolitan regions, investor-owned utilities, industrial and commercial businesses, agencies of the United States, and international governmental agencies.

The physical evaluation of SWBNO's water, sewerage and drainage systems has included experienced personnel of the firm's Water Division which provides study, design, and construction services in all facets of the water and wastewater fields. Water system engineering experience of this business unit includes the design of a broad variety of facilities such as source of supply, pumping stations, treatment plants, and transmission and distribution systems. Wastewater and Drainage system engineering experience includes design of collection, interceptor, and trunk sewers; pumping stations; treatment systems; and sludge disposal facilities. The Water Division also has extensive experience in operator training, plant management studies, and preparation of operation and maintenance manuals for both water and wastewater systems.

In performing the engineering assessment of SWBNO, Black & Veatch reviewed the current condition and operation and maintenance of its water, sewerage and drainage systems. We conducted inspections of SWBNO's major water, sewerage and drainage facilities in May and June 2015, including the two sewage treatment plants and the two water treatment plants and evaluated the general physical condition of the facilities based on the definitions and criteria described below.

- **Good**—The facility is in good condition and provides reliable operation in accordance with design parameters and requires only routine maintenance.
- **Adequate**—The facility is operating at or near design levels; however, upgrading and repairs are needed to ensure continued reliable operation.
- **Poor**—The facility cannot be operated within design parameters. Major renovations are required to restore the facility and ensure reliable operation.

As a result of the facility inspections, Black & Veatch finds the overall condition of these facilities to be adequate. This indicates that most of the facilities are operating in accordance with requirements and meeting the needs of the customers, however, significant improvements are needed over the coming years to improve the reliability and performance of critical assets. We also met with key SWBNO water, sewerage and drainage system staff during this period to discuss other facilities, regulatory compliance, staffing, and the overall mission of the departments. Staff interviewed during the studies included representatives from the following departments:

- Environmental Affairs
- Planning & Budget
- Finance
- Information Systems
- Personnel Administration

- Purchasing
- Emergency Management
- Revenue and Customer Service
- Operations
- Facility Maintenance
- Networks
- Support Services
- Engineering

III. Executive Summary

The purpose of this Report is to summarize the findings of engineering studies performed by Black & Veatch Corporation (Black & Veatch) related to the water, sewerage and drainage systems of the Sewerage and Water Board of New Orleans (SWBNO) in conjunction with the issuance of a maximum of \$200,000,000 of Water and Sewerage Service Revenue (Series 2015) bonds.

A summary of the conclusions is provided in the following section. As referenced above, this Report should be read and considered in its entirety as additional information relevant to the operations of SWBNO is provided outside of this executive summary.

A. ORGANIZATION AND MANAGEMENT CONCLUSIONS

Based on the review of SWBNO's organizational and managerial structures, Black & Veatch has reached the following conclusions:

- SWBNO is organized effectively to carry out its mission to provide drinking water, sewerage, and drainage services to the citizens of New Orleans. This includes managers who are experienced in the critical areas of utility finance, planning, operations, and engineering. There are administrative units tasked with key utility functions such as planning and budgeting, emergency management, human resources, and customer service. The operational units consist of departments focused on providing quality drinking water, sewerage, and drainage service.
- The management team consists of individuals with significant water, sewerage, and drainage experience. This experience has been developed both internally at SWBNO, and also 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 25 percent of current employees are either on the DROP program or are eligible for retirement. Unless they 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 adjust to the pending retirements.
- There are several departments that are experiencing critical vacancies, including Engineering, Internal Audit, Information System Administration, Planning & Budget, Plumbing, and Support Services. SWBNO has made progress with reducing vacancies associated with water, sewer, and drainage operations and continues to address these vacancies as soon as possible to ensure effective operational and maintenance performance, and administrative oversight.
- With pending retirements, current vacancies, and a significant CIP to be implemented, a detailed staffing analysis of the various departments appears to be warranted. The staffing analysis, including an assessment of necessary skills and levels by department, can assist SWBNO's management with the efficient replacement of employees, as well as the development of revised job descriptions for use with the Civil Service hiring process.

- Many of the day to day administrative processes conducted by SWBNO are primarily paper-driven and not supported by its core information systems. In several instances, these information systems, while still functional, have been in place for almost 25 years. SWBNO is beginning a multi-year process to replace its core information systems, including information systems necessary for customer account management and billing, human resources, financial management and work order management.
- SWBNO has developed a strategic plan to address current and future challenges. The plan includes an assessment of strengths and weaknesses; as well as strategies and tactics for strengthening the organization over the coming years. There is specificity for key managers of the administrative and operational units to understand their role in the plan's implementation. The strategic plan should be followed up with department-developed tactical plans and metrics for tracking performance toward stated goals and objectives.

B. WATER SYSTEM CONCLUSIONS

Based on the review of SWBNO's water system, Black & Veatch has reached the following conclusions:

- SWBNO has an abundant water supply via the Mississippi River to provide service to existing and future customers.
- SWBNO consistently meets or exceeds state and federal standards for the provision of drinking water. The treatment capacity for the Carrollton WPP and Algiers WPP is sufficient to meet current and projected demands.
- Overall, SWBNO's water purification plants are adequate and include processes and components that are common in the water industry. The water purification plants are in need of infrastructure upgrades or replacements to sustain reliable operation. Most critical are the Carrollton WPP filters and underdrains which are in poor condition.
- The amount of non-revenue water, which is water produced by SWBNO but not sold to customers, is well above what is typical for a similar sized utility. SWBNO is taking action to address the issue through the use of several initiatives, including the use of leak detection technology; the FEMA-funded replacement of the distribution system; the FEMA-funded Water Hammer program; meter replacement; and account validation. These initiatives are common techniques in the water industry for identifying and reducing non-revenue water and should eventually yield improved results over the long term.
- From 2008 through 2014, an outside consultant performed a water audit per AWWA guidelines. The American Water Works Association guidelines recommend that a water audit is developed annually. This annual water audit can provide an effective basis for understanding areas of non-revenue water and tracking progress toward reducing the amount of non-revenue water to more typical levels.
- Over the years, SWBNO has developed a redundant power supply that is available to primarily sustain drainage operations during significant emergencies such as hurricanes. The power plant is also able to provide power to sustain drinking water low service

pumping, treatment operations, and high service pumping during events where the local power source is down. These power assets are unique within the water industry but necessary to provide a mechanism for SWBNO to sustain critical operations during significant storm events.

- Significant FEMA funds are being dedicated over the coming years to rehabilitate and prepare the power assets to provide reliable power during future storm events.
- SWBNO continues to rebuild the water system to recover from the impact of Hurricane Katrina in 2005. The FEMA-funded hurricane recovery projects will rehabilitate or replace significant pumping assets, as well as a significant portion of the water distribution system.

C. SEWERAGE SYSTEM CONCLUSIONS

Based on the review of SWBNO's sewerage system, Black & Veatch has reached the following conclusions:

- Complying with the consent decree continues to be a major focus for SWBNO. Significant improvements have been made to the sewerage system including rehabilitation of sewage pump stations and the implementation of the Comprehensive Collection System Remedial Program. The number of SSOs has been reduced but is still significant, and SWBNO has recently been able to negotiate an extension of its schedule for completing the rehabilitation of east bank basins at varying milestones through 2025. Meeting this schedule appears feasible, but will require diligent coordination between SWBNO and the City to keep sewer rehabilitation and street projects on track.
- The preventive maintenance inspections developed as part of the consent decree provide an effective means for consistently checking and correcting deficiencies in the east bank collection system. Based on a review of 2014 annual report to the USEPA, SWBNO has been complying with these important inspections.
- The sewage treatment plants have historically been compliant with meeting the limits set forth in their respective NPDES permits. There have been several, recent exceedances of the permit limits for the East Bank Plant; however, additional focus by the operator, Veolia, should return the plant to performance that is more consistent with its historical performance.
- The sewage treatment plants are comprised of processes and components for treating sewage and handling sludge that are common within the wastewater industry. The treatment capacity of the East Bank Plant is sufficient to meet existing and near term demand. SWBNO should continue to monitor the population growth and the impact of the collection system rehabilitation projects to appropriately plan for any needed future expansions.
- Historically, there were several compliance issues related to meeting the reporting requirements for SWBNO's Title V permit for the power plant at the Carrollton WPP. There were no compliance issues in 2014 and SWBNO does not anticipate future occurrences.

- There is a new emissions rule developed by the USEPA related to sewage sludge incinerators that could result in needed modifications to the FBI located at the East Bank Plant. The new rule includes increased standards for mercury emissions, and it appears that emissions for current operations would exceed this limit. SWBNO is working with its operator, Veolia to design and construct exhaust improvements to the FBI to assure compliance

D. DRAINAGE SYSTEM CONCLUSIONS

Based on the review of SWBNO's drainage system, Black & Veatch has reached the following conclusions:

- SWBNO has made significant progress with the rehabilitation of its drainage pump stations with the help of Federal disaster-recovery and hazard mitigation funds. Completed work includes rehabilitation of drainage pumps and motors; storm proofing of stations to protect the pumping assets from flood and wind; and installation of backup generators to ensure operations should loss of power occur. The proposed CIP includes additional, internal funds to continue the normal repair and replacement of drainage pumping assets.
- SWBNO is a participant along with the USACE in the SELA Drainage program. The CIP includes significant funds provided by the Federal government and SWBNO for constructing and improving canals to facilitate better drainage and flood control in the drainage system. The implementation of these improvements will continue to be a major focus of SWBNO in the coming years.
- Additional pumping stations (Lake Pontchartrain permanent stations) are being constructed by the USACE to improve the drainage of the system. SWBNO will likely assume some or all of responsibility for the three permanent stations on Lake Pontchartrain. These additional responsibilities would require additional O&M expense and employee resources that are yet to be determined.

E. CIP CONCLUSIONS

Based on the review of the SWBNO's water, sewerage, and drainage systems and associated reports and documents, Black & Veatch has reached the following conclusions:

- The CIP developed by SWBNO appropriately addresses major system deficiencies and initiatives.
- About 40 percent of the total CIP is projected to be funded from other sources, including FEMA and USACE disaster-recovery and hazard mitigation funds. The majority of these projects are focused on rebuilding the water, sewerage, and drainage systems, as well as preparing SWBNO to sustain operations during future storm events.
- SWBNO is developing its processes for monitoring and re-evaluating a prioritized CIP on an annual basis; as well as implementing a significant number of projects over the coming years. Adjustments to the costs and timing of CIP projects are expected once SWBNO initiates more detailed design. The prioritization component of SWBNO's CIP development process provides a logical basis for managing the implementation of the CIP.

- The CIP will result in a more aggressive schedule for completing capital projects. SWBNO is qualified to manage the implementation of the CIP, and is planning to retain additional, outside engineering support to complete these projects. Increased focus by SWBNO on program management, purchasing, and project approval processes will be needed to prevent significant delays in the completion of the CIP.

As a result of the facility inspections, Black & Veatch finds the overall condition of the water, sewerage, and drainage facilities to be adequate. This indicates that most of the facilities are operating in accordance with requirements and meeting the needs of the customers, however, significant improvements are needed over the coming years to improve the reliability and performance of SWBNO's critical assets.

IV. Organization and Management

A. ORGANIZATION AND STRUCTURE

The water, sewer, and drainage systems that provide service to the City of New Orleans (City) are operated by the Sewerage and Water Board of New Orleans (SWBNO) as a self-supporting enterprise fund utility. The systems date back to the late 19th century when City leaders moved to create drainage, water, and sewer systems to respond to flooding (drainage system), provide drinking water and fire protection (water system), and alleviate unsanitary conditions related to the disposal of human waste (sanitary sewer system). The Drainage Commission was organized in 1896 to develop a drainage master plan for the City. The Sewerage and Water Board was organized in 1899 to begin planning and constructing the water and sanitary sewer systems that would provide service to the residents of New Orleans. The Drainage Commission was merged with the Sewerage and Water Board in 1903 and has continued to provide drainage, water, and sanitary sewer service ever since as the Sewerage and Water Board of New Orleans. In addition to the operation of the water, sewerage, and drainage systems, SWBNO is responsible for capital planning; construction; budgeting and accounting; financial planning and rate setting; meter reading; billing; customer service; and various other administrative functions necessary for managing a utility.

SWBNO's 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." The vision of SWBNO is to have the trust and confidence of its customers for reliable and sustainable water services.

Based on the review of the assets and operations of SWBNO, there are several key challenges that it will face in the near future, including:

- ***Compliance with the Consent Decree.*** On July 17, 2014, SWBNO entered a Third Modified Consent Decree with the USEPA and USDOJ. The Third Modified Consent Decree builds on the original consent decree that was entered into by SWBNO in 1998 and subsequent modifications in 2010 and 2013. The primary purpose of the consent decree is to correct the instances of sewer overflows from the sanitary sewer system. This includes the rehabilitation of the sanitary sewer system to increase capacity, reduction of cross connections, operational response to overflows, and other pertinent items related to complying with the Clean Water Act and Clean Air Act and associated regulations. Additional information related to the consent decree is found in the Sewerage System section of this Report.
- ***Hurricane Katrina Recovery Efforts.*** In 2005, the City was devastated by flooding caused by levee breaks following Hurricane Katrina, which also had a significant impact on the assets of SWBNO. Since then, SWBNO has embarked on a substantial rebuilding effort that continues to this day. Significant ongoing projects related to the sewer pump stations, power plant, and water distribution system are meant to return these Katrina-impacted assets to good working condition. The capital budget planned by SWBNO includes a significant portion of Hurricane Katrina related projects to be completed over the coming years. Many of these projects are funded via federal grants from entities such as the

FEMA, United States Army Corps of Engineers (USACE), as well as State of Louisiana funding programs.

- *Staffing.* As with many other utilities across the U.S., SWBNO is facing a wave of retirements over the coming years. The loss of personnel and the associated experience will challenge management to hire and retain the next generation of employees to continue providing capable water, sewerage, and drainage services.
- *Information Systems.* The majority of business systems that SWBNO relies on for providing customer service and managing its business are outdated. Accordingly, SWBNO is planning to replace and/or upgrade several important systems over the coming years. This necessary venture will require planning and preparation to seamlessly integrate the new systems with ongoing operations and other planned initiatives.
- *Water System Non-Revenue Water.* The drinking water system experiences a significant amount of unmetered, non-revenue water that appears to be related to leaks in the transmission and distribution system. Over the coming years, SWBNO has planned several initiatives to address this condition including capital repair and replacement of water distribution mains; proactive use of leak detection technology; and the installation of Advanced Metering Infrastructure (AMI).
- *Other Capital Repair and Replacement Projects.* In addition to the projects mentioned above, SWBNO is planning to invest in projects to return other critical assets to good working order, including the water purification plants and sewage treatment plants.

Implementation of these initiatives will be the responsibility of the SWBNO Board of Directors and Management, which is described in more detail in the following sections.

1. Board of Directors

SWBNO is governed by an 11 member Board of Directors (Board), which includes the Mayor of New Orleans. In 2013, during a Louisiana regular legislative session, several changes were made to the state statutes that govern the makeup and actions of SWBNO. These major changes to SWBNO's Board are highlighted below:

- The number of Board members was decreased from 13 to 11. There is no longer a requirement for three Board members to be selected from the City Council.
- The Board includes two members from the City's Board of Liquidation and eight citizen members (5 from each of the council districts of the City, 1 at large, and 2 consumer advocates).
- The eight citizen members are selected by a Selection Committee that consists of ten members, including: 1) president of Dillard University or designee; 2) president of Loyola University or designee; 3) president of Tulane University or designee; 4) president of Xavier University or designee; 5) chancellor of Delgado Community College or designee; 6) chancellor of University of New Orleans or designee; 7) chancellor of Southern University at New Orleans or designee; 8) chair of board of directors of New Orleans Chamber of Commerce or designee; 9) president of the board of directors of New Orleans Regional Black Chamber of Commerce or designee; and 10) chair of board of directors of the Urban League of Greater New Orleans or designee.

- The process for determining Board members was amended. Generally, the process requires that vacancies to the Board are published to achieve public awareness and solicit nominees for replacement. The Selection Committee reviews the list of applicants and determines whether they are qualified, and then submits a list of three qualified candidates to the Mayor for consideration. The Mayor then selects one of the three individuals and submits the nominee to the City Council for consideration and approval. If City Council approves, the nominee is appointed to the Board. If the City Council does not approve, the Selection Committee is to re-convene and again select three qualified individuals for submittal to the Mayor to re-start the process.
- Each nominee needs to have experience either in architecture, environmental quality, finance, accounting, business administration, engineering, law, public health, urban planning, facilities management, public administration, science, construction, business management, community or consumer advocacy or other pertinent disciplines.
- The term of each Board member was reduced from nine years to four years. The members cannot serve more than two consecutive terms. There are staggered initial terms determined by lot for the eight citizen members.
- There is a requirement for the Board to submit additional reports on a quarterly basis to the City Council. The reports generally cover standard industry metrics; processes and indicators to prevent waste and fraud; performance metrics for employees and contractors; benchmarks on the coordination of SWBNO and the City's Department of Public Works for ensuring resource alignment; effectiveness and efficiency of information systems; improvements to system redundancy; and status of operational reforms, capital improvement programs, and service assurance programs.

2. Management

SWBNO is led by the Executive Director who reports to the Board. The Executive Director, Mr. Cedric S. Grant took charge of SWBNO in August of 2014. Mr. Grant also oversees the City's capital development, infrastructure projects, and community development initiatives under a cooperative endeavor agreement between SWBNO and the City. While the Board provides leadership, policy direction, and oversight, the day to day operations of SWBNO are managed by the Executive Director, Deputy Director, General Superintendent, and Deputy General Superintendent.

As seen in the organizational chart on the following page, operations, maintenance, and engineering functions are managed by the General Superintendent who reports to the Executive Director. The General Superintendent is supported by the Deputy General Superintendent. Business and administrative functions are managed primarily by the Executive Director and Deputy Director. The Deputy Director is Mr. Robert Miller who has over 33 years of experience in the water utility industry, including 26 years at the Louisville Water Company. He has been at SWBNO since 2009. The General Superintendent is Mr. Joe Becker who has approximately 28 years of service with SWBNO. Mr. Becker's background has been primarily in the Operations and Engineering departments of SWBNO. The General Superintendent is assisted by a Deputy General Superintendent. Currently, the position is vacant and SWBNO is working to identify a replacement. The management team appears well qualified to run SWBNO.

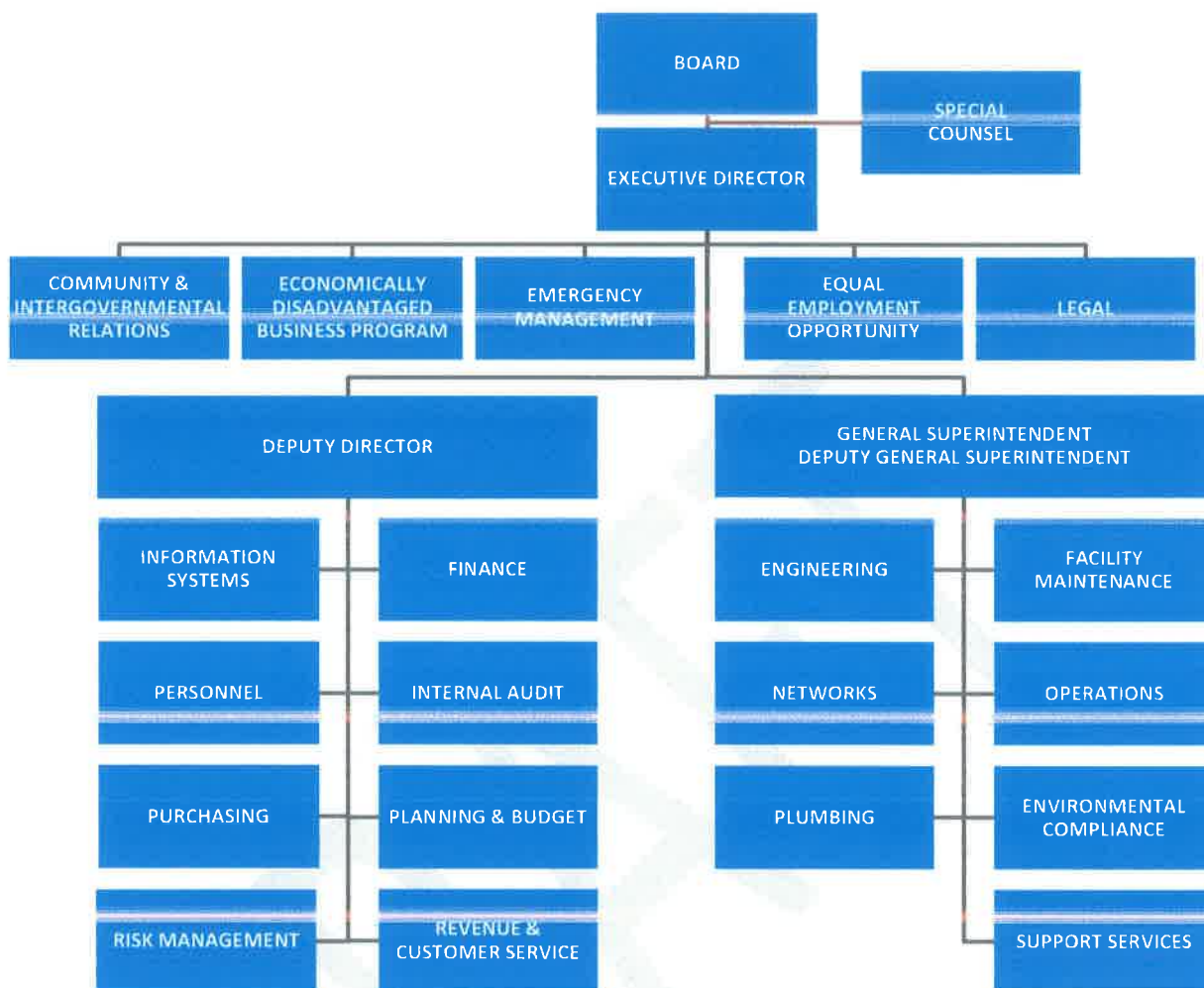


Figure 1—Organizational Chart

In addition to SWBNO's core management team noted above, the department heads maintain significant operational and professional experience. For example, the head of the Operations, Facilities Maintenance, and Networks Departments each have over 30 years of experience, with SWBNO. Other managers maintain significant experience with SWBNO, but also have experience within the City or separate organizations. Discussions with staff have indicated that reporting lines do not always coordinate with the organizational structure. For example, the Geographic Information System (GIS) is housed within the Information Systems Department (Information Systems), but is required in the Engineering Department. In this instance, cooperation between administrative and operational units occurs to provide the necessary support across the organization.

3. Staffing

As noted above, key managers maintain significant experience with SWBNO operations and its business functions. While this provides current benefits, retirement is on the horizon for many of these key managers. According to SWBNO, approximately 25 percent of its workforce is eligible for retirement.

As of May 2015, SWBNO has approximately 1,103 total employees. This does not include contract employees, such as Veolia employees who operate and maintain the sewage treatment plants and Xerox employees who assist in Information Technology. Table 1, on the following page, provides the current number of employees at SWBNO by department and the associated number of vacancies to be filled.

As can be seen, there are significant vacancies in some of the key departments, including Water Purification and Lab unit of the Operations Department, as well as Engineering, Internal Audit, Information System Administration, Planning & Budget, Plumbing, and Support Services. These are key areas where the lack of qualified personnel can impact the performance of core responsibilities and administrative oversight. For the majority of these, the vacancies have been approved by the Board to be filled. SWBNO Board has approved requisitions for 179 vacancies. This means that the hiring of replacements has been initiated and will be pursued by SWBNO's Personnel Department in conjunction with the City of New Orleans' Department of Civil Service (Civil Service). While SWBNO initiates the hiring process, personnel management and the actual hiring process are managed by Civil Service. Civil Service has developed policies and procedures that must be followed by SWBNO for the hiring of any new personnel. In general, interviews with SWBNO indicate that hiring suitable replacements for the vacancies noted above is a challenge due to several factors including:

- **Lack of Qualified Candidates**—The operating departments for SWBNO include more technical and labor intensive positions such as electricians, engineers, laborers, and mechanics. In many instances, SWBNO managers report that the pool of candidates does not maintain the technical experience associated with the job needed.
- **Cumbersome Hiring Process**—The process for hiring through Civil Service requires reviewing and interviewing a significant number of applications. Civil Service groups candidates into bands that reflect compatibility with the requirements of the particular job opening. The candidates in qualified bands must be interviewed with recommendations reverted back to Civil Service. This process takes time, and in some instances managers report that qualified candidates will move on to other jobs that become available.
- **Pay Limits and Residency Requirements**—Working for SWBNO includes a residency requirement to live within Orleans Parish. Additionally, managers note that pay scales for more technical jobs such as engineering and skilled labor are not competitive with similar private sector jobs. In some instances disincentives exist where a promotion to a managerial position could result in less pay due to exemption from overtime.

Despite these hurdles, SWBNO management believes that the process for hiring additional employees and replacements for the existing employees that will be retiring can and will be improved. One initiative mentioned by staff is the Workforce Initiative. In September of 2014, the Board approved a partnership with the City of New Orleans, SWBNO, and Delgado Community College to recruit and train working-age candidates in sector-specific skills such as crafts, welding, machinist, and industrial maintenance in the waste water management fields. The initiative aims at hiring an additional 250 employees, or 25% of the workforce. In addition, in 2015 SWBNO will conduct a comprehensive compensation analysis for all SWBNO positions to determine appropriate salaries and benefits for its employees.

Other initiatives include providing more SWBNO-specific job descriptions to Civil Service to assist with providing a more focused and qualified set of candidates to evaluate; completion of job studies to create or design new positions to meet the changing outlook of SWBNO; strengthening the communication between SWBNO and Civil Service; and participation by members of the Personnel Department (Personnel) at local and regional job fairs to recruit workers interested in the water, sewerage, and drainage fields.

Table 1—Current Number of SWBNO Employees and Vacancies (as of May 11, 2015)

DEPARTMENT	# OF EMPLOYEES	# OF VACANCIES	TOTAL	% VACANT
Executive Director	7	0	7	0.00%
Community & Intergovernmental Relations	4	2	6	33.33%
Economically Disadvantaged Business Program	7	0	7	0.00%
Emergency Management	5	4	9	44.44%
Equal Employment Opportunity	0	1	1	100.00%
Legal Department	8	1	9	11.11%
Administrative Services	2	1	3	33.33%
Environmental Affairs	11	4	15	26.67%
Finance	24	4	28	14.29%
Information Systems Administration	6	3	9	33.33%
Personnel Administration	14	0	14	0.00%
Planning & Budget	6	3	9	33.33%
Purchasing Administration	6	0	6	0.00%
Revenue & Customer Service	175	19	194	9.80%
Risk Management	9	3	12	25.00%
Internal Audit	3	5	8	62.50%
General Superintendent	4	0	4	0.00%
Engineering	46	22	68	32.35%
Facility Maintenance	63	8	71	11.27%
Networks	323	31	354	8.76%
Operations – Administrative	2	1	3	33.33%
Operations – Water Purification and Lab	72	10	82	12.20%
Operations – Pumping and Power	79	4	83	4.82%
Operations – Sewage and Drainage Pump Stations	109	9	118	7.63%
Operations – Sewage Treatment Plants	1	0	1	0.00%
Plumbing	18	7	25	28.00%
Support Services	96	39	135	28.89%
Total	1,103	179	1,282	13.96%

As SWBNO manages personnel in accordance with the City's Civil Service Department, employees that are eligible for retirement can opt to enter the DROP program. The DROP program allows employees that are eligible for retirement to continue working while receiving their normal pay and retirement pay for up to five years. This benefit allows SWBNO employees to save additional

money prior to terminating their employment with SWBNO. A benefit for SWBNO is that the organization can begin planning for the departure of the employee. Currently, there are approximately 125 employees of SWBNO that are on DROP. There are an additional 147 current employees that are eligible for retirement. Thus, approximately 25 percent of SWBNO's current workforce is on DROP or eligible for retirement.

The pending retirements facing SWBNO are not unique to SWBNO. Utilities across the U.S. are facing similar challenges as the workforce that was developed to manage and operate utilities during growth years approaches retirement age. In addition to pursuing replacements for the identified vacancies above, SWBNO also has several initiatives that are focused on mitigating the impact of the pending retirements, including:

- **Knowledge Management and Succession Planning**—In 2013 SWBNO developed a policy for initiating a program for Knowledge Management and Succession Planning. The focus of the program is to 1) capture knowledge from critical employees prior to retirement; 2) identify potential successors; and 3) transfer knowledge and develop potential successors. While this program is still in the early stages, it is evident from discussions with staff that one benefit of the DROP program is the advance notice that it provides management for preparing for the loss of critical personnel. This initiative is slowly being developed within the administrative departments that report to the Deputy Director. SWBNO management plans to continue to develop this program in the coming years.
- **Training**—SWBNO conducts training through approved online, on-site and off-site courses. The training courses include a variety of classes on subjects including, business administration; clerical; time management; diversity and communications; process and change management; and leadership. Managers in SWBNO identify classes for their employees and submit the list to the Personnel Department, who coordinates the training with the suppliers. Additionally, the operating divisions under the General Superintendent's Office maintain training regimens related to their specific focus areas. Since operational positions require annual training credits to maintain Louisiana State certification, the operating units obtain specialized training outside the purview of Personnel Administration. All training is then reported back to Personnel Administration for record keeping.

B. KEY OPERATING UNITS

As seen in the organizational chart on above, the key operating units of SWBNO fall under the supervision of the General Superintendent and Deputy General Superintendent, who report directly to the Executive Director. The following sections provide an overview of key operating units, as well the major assets for which they have responsibility.

1. Operations

The Operations Department (Operations) within SWBNO is organized into four separate units. These include Water Purification, Sewerage and Drainage Pumping, Water Pumping and Power, and Sewage Treatment. Operations coordinates with several other departments, including Engineering, Networks, and Facility Maintenance to plan and perform maintenance related to SWBNO's key assets.

a) Water Purification

The Water Purification unit is responsible for the treatment of all drinking water supplied by SWBNO. This is accomplished at two purification plants, the Carrollton WPP and the Algiers WPP. The Carrollton WPP is the larger of the two and primarily serves the portion of the SWBNO service area that is on the east bank of the Mississippi River. The operating capacity of the Carrollton WPP is 232 million gallons per day (mgd). The Algiers WPP is located on the west bank of the Mississippi River and has a current operating capacity of 24 mgd.

Key responsibilities of the Water Purification unit include treating water that meets all parameters of the Safe Drinking Water Act (SDWA); controlling the rate of flow into the plants to assure the quantity of water is sufficient to meet system demand; operation of the laboratory to conduct process control sampling as well as compliance sampling; management of various chemicals used in the treatment process; general maintenance of treatment facilities, including backwashing of filters, painting, and other miscellaneous activities.

Another key function of the Water Purification unit is to monitor the raw water coming down the Mississippi River for any potential organic contaminants. This includes participating in the State of Louisiana Department of Environmental Quality (LDEQ) program for Early Warning Organics Contamination Detection System (EWOCDS). This system consists of monitoring stations equipped with sensors for detecting organic contaminants. If organic contaminants are detected, LDEQ, through the Louisiana Department of Health and Hospitals, notifies downstream utilities so they can prepare and utilize treatment options for the removal of organic contaminants.

b) Sewerage and Drainage Pumping

The Sewerage and Drainage Pumping unit primarily provides operation and maintenance of the sewerage and drainage pump stations owned by SWBNO. The topography of the SWBNO service area is unique and requires significant pumping assets for conveying sewage and storm runoff. There are approximately 1,547 miles of sewer mains in the system and 82 sewage pump and lift stations. With respect to the sewerage system, this unit operates the pump stations to assure effective flow of sewage to SWBNO's two treatment plants. SWBNO is under a consent decree with the USEPA to eliminate the instances of sanitary sewer overflows in the larger, east bank portion of its sewerage system. Thus, this unit plays a critical role as the pumping and lift stations need to be in good working order to prevent backups in the system and associated overflows that are required to be reported under the terms of the consent decree.

With respect to the drainage system, this unit operates 25 major drainage pump stations that are responsible for draining Orleans Parish during wet weather. The pumps in these drainage pump station require manual operation and therefore this unit provides a critical role in the drainage of Orleans Parish during wet weather. In addition to the drainage pump stations, this unit is responsible for monitoring and inspecting the various canals and 13 minor drainage stations that are used to collect and convey stormwater during wet weather events.

c) Water Pumping and Power

The Water Pumping and Power unit (Pumping and Power) is responsible for the operation of SWBNO's power plant that is located at the Carrollton WWP. This power plant is primarily a 25 cycle plant that powers SWBNO's drainage pump stations and parts of the water purification plants.

In addition to the power plant, this unit is also responsible for operating the major pumping assets that supply drinking water to SWBNO's customers. This includes the Panola and Claiborne high service pump stations, as well as high service pumps A and B that are located in the power plant at the Carrollton WPP. Additionally, this unit controls the low lift pumps that pump water from the river intakes to the two purification plants.

Electricity is a critical component for the provision of all water, sewerage, and drainage service. During an emergency situation, the power station uses steam produced from onsite boilers to power three turbines that produce electricity to keep the drainage pump stations up and running during a flood event or other disaster. There is an additional turbine that uses natural gas or diesel fuel to also supply 25 cycle power. The combined capacity of these four turbines is approximately 61 megawatts (MW). There is also a new 60 cycle, 15 MW power turbine that has been installed near the power plant. This turbine will provide redundancy to stations that rely on 60 cycle power that is provided by the local electricity provider, Entergy. The new turbine will have a feed line from it to Drainage Pump Station No. 1, which is a key pump station that serves the downtown portion of the drainage service area.

d) Sewage Treatment

The sewage treatment plants owned by SWBNO are operated, maintained and managed under a contract with Veolia. In December of 2014, SWBNO and Veolia entered a new ten-year agreement that would guarantee Veolia will continue to operate, maintain and manage the sewage treatment plants and be responsible for complying with the NPDES permit requirements.

The sewage treatment operations and maintenance are managed by Veolia, with oversight by SWBNO. Veolia is responsible for the compliance with standards outlined in SWBNO's NPDES permit related to Clean Water Act (CWA) sewage treatment effluent standards, as well as Clean Air Act (CAA) regulations for emissions as the sewage treatment plants. Both Veolia and SWBNO cooperate with respect to identifying capital needs for the sewage treatment plants to assure that they remain in good working order.

2. Facility Maintenance

The Facility Maintenance Department (Facility Maintenance) provides technical maintenance service to various critical assets owned by SWBNO. Facility Maintenance is divided into four units that focus on plant maintenance, welding and fabrication, electrical maintenance, and mechanical maintenance. Examples of the work performed by Facility Maintenance includes: cleaning and inspection of flocculation and sedimentation basins; welding and fabrication of various mechanical parts necessary for SWBNO's critical power and pumping equipment; electrical maintenance on the power delivery assets as well as the electrical equipment at pumping and treatment facilities; maintenance on pumping motors and associated equipment; and testing and maintenance on SWBNO's customer meters. The work performed by Facility Maintenance requires significant specialized technical skills as much of the SWBNO equipment related to the power plant, steam pumps, and other older equipment cannot be replaced with the same equipment, and therefore must be maintained and repaired in house.

Work performed by Facility Maintenance is coordinated and tracked through SWBNO's Cassworks® work order maintenance system. Facility Maintenance is participating in several

important initiatives, including: rehabilitation of the power plant and associated turbines; water hammer project related to replacing pumps at high service pump stations; sewerage and drainage pump station rehab projects; and maintenance on water purification plant sedimentation basins. These projects, combined with routine and reactive maintenance issues throughout the plants, stations and distribution, keep Facility Maintenance heavily engaged and require the normal use of overtime from employees to keep up with its work load.

3. Engineering

The Engineering Department (Engineering) includes Mechanical Engineering, Electrical Engineering, Civil Engineering, Construction Administration and Inspection, and Networks Engineering. Engineering administers major contracts for all projects related to SWBNO facilities, and coordinates with other agencies and consulting engineers for the design and construction of SWBNO capital improvements. The engineering staff works closely with the various Operations units. These close ties promote the effective execution of critical projects necessary to keep operations and processes working and producing the services for the community. Currently, there are 46 employees in Engineering with 22 vacancies.

Major areas of responsibility for Engineering include:

- Review of design packages from outside engineering firms that are related to SWBNO facilities.
- Inspection of projects currently under construction, e.g., the current rehabilitation of the steam driven high service pumps A and B.
- Internal design of systems such as the replacement of sewer lines or water distribution mains that serve the Orleans Parish.

The proposed CIP discussed in Section VII of this Report will be the focus for Engineering in the coming years. To supplement the existing Engineering staff, SWBNO has been seeking qualified firms that have expertise in specific areas to assist with the design and implementation of the various projects. This will shift much of the design of proposed projects to the outside engineering firms with SWBNO engineers providing program management.

4. Networks

The Networks Department (Networks) is responsible for the maintenance of the transmission and distribution lines for the water, sewer, and drainage systems, as well as responding to customer service requests that are routed via the Customer Service and Revenue employees using Cassworks®. Major areas of responsibility for this unit include:

- Sewer Overflow Response—As part of the consent decree, SWBNO is required to respond within four hours of a daytime sewer overflow to mitigate the impact of the overflow on the environment. For sewer overflows that occur during the night time, or during holidays, the required response time is six hours.
- Leak Detection—This initiative to identify and repair leaks in the water distribution system is led by the Networks Department. SWBNO has been using firms with experience

in leak detection, and the associated leak detection technology to survey various sections of the water distribution system.

- **System Inspections**—Networks is responsible for inspecting the various components of the water, sewer, and drainage systems. This includes manholes, pressure relief valves on force mains, exercising water distribution valves, closed circuit television (CCTV) sewer inspections, and inspection of fire hydrants. With respect to fire hydrants, the goal of the Networks Department is to inspect a fire hydrant once every two years. Additionally, the local fire department does its own check of fire hydrants on a semi-annual basis.
- **Technical Services**—Networks has engineers within its technical services group that focus on the management of network specific projects. These projects mainly include pipeline replacement projects.
- **Customer Response**—This includes service issues that impact customers such as main breaks, low pressure, or other events in the water distribution or sewer system that impact customer service.

To complete these various tasks, Networks distributes its employees into seven zones of operation. Employees assigned to Zones 1, 3, 4, 5 and 6 are responsible for maintenance and inspections within a specific geographical zone of SWBNO's service area. Employees assigned to Zone 2 focus solely on preventative maintenance tasks across the entire service area. Employees in Zone 7 focus on issues that occur outside of normal operating hours, i.e., "after hours." To supplement these employees, Networks maintains agreements with contractors to assist with activities such as water line repair, sewer line repair, and paving of areas where work is required under the street.

Another important SWBNO initiative where Networks plays a key role is the water line repair and sanitary sewer system rehabilitation projects. SWBNO strives to coordinate with the City's Department of Public Works (DPW) to conduct these rehabilitation projects concurrently as DPW is rehabilitating streets and sidewalks. Networks, as well as other SWBNO units provide input and coordination for the scheduling of these projects to prevent both entities from unnecessarily tearing up the street or disrupting traffic on two separate occasions.

5. Plumbing

The Plumbing Department (Plumbing) is responsible for plumbing code enforcement and inspection of new residential and commercial connections to the SWBNO collection and water distribution network. Areas of code enforcement include installation of relief valves, backflow preventers, and avoiding cross connections with SWBNO system. Additionally, Plumbing plays a key role in compliance with the consent decree. SWBNO is required to report any sewer overflows that are identified on private property. When Plumbing identifies a defect that causes a sewer overflow on private property, a letter is sent to the property owner informing them that a plumber must be retained to fix the defect to prevent further issues. These work activities are reported quarterly as part of the consent decree compliance.

6. Environmental Affairs

The Environmental Affairs Department (Environmental Affairs) oversees several critical functions with respect to maintaining and reporting compliance with the various permits held by SWBNO. While the operating units of SWBNO have the responsibility of complying with the parameters of

the various permits, Environmental Affairs assists reporting and tracking to ensure the timely submission of required information to regulatory agencies. There are a total of 11 employees within Environmental Affairs and four vacancies. Key permits monitored by Environmental Affairs include:

- **NPDES**—Environmental Affairs manages SWBNO’s industrial pretreatment program required by the NPDES permit. This includes establishing discharge limits for significant industrial users and monitoring these customers to ensure they stay within the limits. With respect to sewage treatment plant effluent parameters outlined in the NPDES permits, Veolia is responsible for achieving compliance. Environmental Affairs reviews, certifies, and submits all discharge monitoring reports (DMRs) through the Net DMR reporting system. There are also discharge permits for the water purification plants to allow for the discharge of backwash water and clarifier sludge to the Mississippi River. Environmental Affairs.
- **Title V Air Permits**—There are two main permits for SWBNO’s operations, including the power plant at the Carrollton WPP and the incinerator at the East Bank Plant. Additionally, SWBNO maintains backup generators at many facilities. Environmental Affairs has led the initiative to have these generators registered with LDEQ.
- **Municipal Separate Storm Sewer System (MS4) Permit**—Along with the City of New Orleans and several other entities, SWBNO is a party to the stormwater permit that regulates stormwater discharges in the Orleans Parish area.

In addition to monitoring the permits above, Environmental Affairs also tracks other environmental requirements related to underground storage tanks and participates with the operating units in tracking and complying with the consent decree.

A key initiative that Environmental Affairs will lead includes the implementation of the green infrastructure project required under the third modified consent decree. This project will look at the viability of using components such as pervious pavement, rain gardens, or other components as part of construction projects that will mitigate the impact of stormwater during wet weather events. It will also include education about stormwater management best practices for the general public.

7. Support Services

Support Services falls under the purview of the General Superintendent, it provides various maintenance and support functions for the operating departments. Several of these support functions include:

- **Fleet Management**—SWBNO, through Support Services, manages the fleet of vehicles used by the various other divisions. The fleet consists of regular passenger vehicles and utility trucks, as well as larger vehicles such as vacuum trucks and trucks that are equipped with portable hydraulic equipment for operating valves throughout the system. Currently, there are approximately 753 pieces of rolling stock managed by Support Services. Additionally, there approximately 117 pieces of equipment, such as portable pumps. All preventive maintenance is performed on the fleet by Support Services. Repairs to equipment are done both internally and via contracted maintenance.

- **Maintenance**—Support Services provides grounds maintenance for many of the unmanned properties owned by SWBNO. For example, grounds maintenance at the Carrollton WPP is performed by staff from the operating units located there, as well as the maintenance at the manned sewage pump stations. Support Services provides grounds maintenance at the unmanned pump stations and other similar facilities. Additionally, Support Services provides services for controlling vegetative growth along the drainage canals as well as general maintenance such as janitorial services and miscellaneous repair to building facilities.

Additional responsibilities that fall under the purview of Support Services include control of the warehouse, which includes the tracking and inventory of field supplies and equipment used by SWBNO, as well as managing the contracted security at the Central Yard, St. Joseph Street headquarters, and Algiers WPP.

C. ADMINISTRATIVE AND SUPPORT UNITS

As seen on the organizational chart on page 14, the units that provide administrative and support functions for SWBNO report to the Deputy Director and Executive Director. Key functions include finance, planning and budget, information systems support, customer service and revenue collection, legal, purchasing, and other critical areas necessary for helping SWBNO perform its mission. The following sections provide an overview of several key Departments and their current initiatives.

1. Finance

The Finance Administration Department (Finance) is responsible for several important functions of SWBNO, including the following:

- Preparing monthly financial statements;
- Processing employee payroll;
- Managing receipts from customers, as well as disbursements to employees and vendors;
- Managing annual audit process;
- Overseeing pension fund;
- Monitoring and preparing annual report on debt service coverage;
- Inventory control; and
- Managing short-term investment portfolio

Finance currently has 28 budgeted positions with four vacancies.

Financial reporting is a critical function of Finance. On a monthly basis, this Department prepares an overview of the financial condition of SWBNO for presentation at the monthly regular Board meeting. Preparing these monthly reports in a timely manner is difficult due to the deficiencies of the existing financial reporting system. A more modern financial system with increased functionality (see section on Information Systems) is desired...

Finance also handles year-end auditing and financial reports. It is the goal of Finance to complete the SWBNO audit by March 31st of each year. This includes completion of the audit and production of the Comprehensive Annual Financial Report (CAFR). The end of the financial reporting year is December 31st. Staff indicates that SWBNO has consistently received the Certificate of Achievement for Excellence in Financial Reporting for its annual financial statements, with the exception of one year in the aftermath of Hurricane Katrina.

Finance manages the payroll process for SWBNO. At this point, the process is still manual in nature. Time cards are collected from the various divisions and input into the payroll system. Payment is disbursed to employees electronically to their respective account on a weekly or bi-weekly schedule. SWBNO is in the early stages of exploring the next generation of software to manage its human resources (including payroll) functions.

Other critical responsibilities handled by Finance include managing accounts receivable, accounts payable and the various investments of SWBNO. Staff processes accounts receivables associated with miscellaneous revenues such as grants, FEMA reimbursements, and City refunds that are not handled by Revenue & Customer Service. Staff also processes accounts payable to vendors. The target is to process payments immediately after approval by the appropriate authority. Investments are made in short-term instruments such as the Louisiana Asset Management Pool (LAMP) and money market accounts. In addition, Finance is responsible for deposits to and disbursements from the pension fund, and retains an actuary on an annual basis to assess the fund value as part of the annual audit process.

Another responsibility of Finance is to conduct an inventory count of equipment for the SWBNO warehouse with the assistance of a contracted professional counter. This work consists of performing a physical count of equipment in the warehouse and cross-referencing it to forms that must be completed prior to reception or release of the equipment. The purpose of this inventory is to assure that SWBNO equipment is managed responsibly and used for its authorized purpose.

2. Planning & Budget

The Planning & Budget Department (Planning & Budget) is responsible for developing the annual budget that by law must be completed by December 31st each year for the coming year. Planning & Budget currently has nine budgeted positions with three vacancies.

The annual budgeting process consists of developing both of the operating and capital budgets. The normal operating budgeting process begins in July of each calendar year. At that time, Planning & Budget submits a budget package to the Department heads that shows the actual spend versus budgeted amounts for the current year to date. The Department heads then perform their own internal analysis to review the current budget, spend to date, and ongoing operations to provide Planning & Budget with an assessment of budget changes for the coming fiscal year.

Planning & Budget reviews the budget information supplied by the Department heads for reasonableness and then inputs into the AFIN financial system. Planning & Budget develops the budgeted projection of water, sewer, and drainage revenue for SWBNO. The revenue and requested operating budget is compared to determine whether sufficient funds are available to meet the budgeted costs. The Department heads then meet in person with Planning & Budget, as well as the Executive Director to review their requested budget and make final adjustments as necessary.

The capital budget is managed by the General Superintendent's office, which receives capital requests from all departments, prioritizes projects, and determines the funding source for each project. The funding source dictates which utility the project supports, as well as whether it will be paid from SWBNO funds, FEMA funds if the project meets specific requirements, or from another source. Planning & Budget takes this capital budget and analyzes it to determine whether there is sufficient revenue or funds on hand to complete the project. If there are not sufficient funds, the project is marked as unfunded and reverts to be considered during next year's capital budget cycle.

Additional initiatives that Planning & Budget is involved in include strategic planning, support of bond issuance, and tracking actual versus budgeted spend for the various departments.

3. Revenue & Customer Service

The Revenue & Customer Service Department (Revenue & Customer Service) provides the day to day interface with SWBNO customers. This includes operating the call center on a 24 hour/7 days a week basis, and manning the lobby customer service and payment centers. As the title of this department indicates, the two core functions provided are: 1) customer service which includes assisting customers with general payment and service issues and 2) revenue which includes meter reading, billing, and collection functions. Revenue & Customer Service currently has approximately 194 budgeted positions, with 19 vacancies.

Customer service is generally accomplished through the operation of the call center and lobby customer service center located at St. Joseph Street. SWBNO also maintains a customer service center located in Algiers on Behrman Place. SWBNO is investigating the possibility of opening a satellite customer service center in the eastern portion of its service territory. The call center operates 24 hours per day, seven days per week. Normal operating hours are from 7:00 AM to 7:00 PM, with the emergency group handling any calls after hours. The emergency group, while a part of Revenue & Customer Service, is set up to handle customer service issues that require a time sensitive response from SWBNO. A key reason for the existence of this group is to comply with SWBNO's consent decree, which requires the reporting of the date and time of SWBNO's response to an unauthorized discharge from the sanitary sewer system. The majority of calls received by the call center are related to billing issues.

Revenue & Customer Service staff acknowledges that the performance of the call center has been the most challenging aspect of their operations in recent years. Turnover remains high within the call center as salaries are considered low. Over the last three years, management has been tracking typical call center metrics such as number of abandoned calls and wait time, with the goal of improving performance in this area.

Another challenge mentioned by staff is the communication between the customer service call center and operations when service issues occur in the system. The main issue appears to be when a service issue such as an outage occurs due to a main break or other reason. In these instances, the call center struggles to provide customers with timely updates on the status of the outage and timing of service restoration. For planned outages, this communication is greatly improved as the call center receives text from the community relations staff that provides pertinent information to relay to customers.

The call center has access to the Cassworks® work order system, which allows it to initiate service requests to be performed by operations. However, Cassworks® does not provide any additional information or functionality that would allow a call representative to update a customer that is inquiring about an open service request. In 2015, Revenue & Customer Service has begun to take a more proactive approach by seeking answers from operations and contacting customers before the customers call back to inquire.

Revenue & Customer Service also handles the billing and collection of SWBNO customers. Water and sewer revenue is derived from metered water use. Meters are read by Revenue & Customer Service employees on a monthly basis. Staff indicates that there are approximately 129,000 meters in the SWBNO system. Meters are read manually by approximately 25 meter readers. Data is uploaded each day to the Customer Account Management (CAM) system where it is consolidated and bills are generated each month via 20 billing cycles. Revenue & Customer Service is responsible for printing of bills, and has access to a local print shop in the event of any disruptions to the in-house print process.

Collection of revenue is primarily accomplished through traditional mail service. Customers can also pay online via credit card that includes a 5 percentage processing fee, or in person at the customer service centers. Payment at customer service centers is only available via cash or personal check. Revenue & Customer Service collects sanitation charges for the City's Sanitation Department and forwards the revenue to the City. Collection of the drainage system revenue is via property tax which is collected by the City. Revenue collected by the City is forwarded to SWBNO.

One SWBNO initiative that its staff believes will have a positive impact on the customer service and revenue collection efforts of SWBNO is the replacement of the existing CAM system that is used for billing, collection, and customer service functions. Revenue & Customer Service in conjunction with Information Technology has begun the process of converting their CAM system to a Cogsdale® Customer Service Management (CSM) system. It is envisioned that the new billing system will be able to allow Revenue & Customer Service to institute e-billing in lieu of the current paper driven process. Additionally, the new system will allow for Interactive Voice Response (IVR) to provide automatic reminder notices to those customers that are behind on payments. SWBNO has dedicated seven employees to an offsite facility that is in the process of implementing the new CSM system.

a) Customer Service Metrics

Revenue & Customer Service tracks several performance areas with respect to its call center, revenue, and billing. The table below provides an indication of its recent performance:

Table 2—SWBNO Internal Customer Service Performance Metrics

METRIC	2012 AVERAGE	2013 AVERAGE	2014 AVERAGE	INTERNAL GOAL	MEET INTERNAL GOAL?
Bills Adjusted	2.30%	2.40%	3.00%	Reduce over time	No
Bills Estimated	4.41%	3.00%	4.60%	< 2%	No
Calls Abandoned	15.10%	18.40%	13.70%	< 10%	No

Emergency Calls Abandoned	16.40%	15.50%	11.80%	< 10%	No
Inbound Customer Contacts	22,375	22,270	23,004	Reduce over time	No

As shown in the above table, the metrics related to actual abandoned calls are high compared to SWBNO's internal goals, but there was improvement in 2014.

(1) Bills Adjusted

Revenue & Customer Service monitors the number of bills that are adjusted each month, compared to the total number of monthly bills computed for customers. A bill adjustment can occur due to an unknown leak, erroneous meter read, or other issue. For 2012, 2.3% of bills were adjusted, for 2013, 2.4% of bills were adjusted, and for 2014, 3.0% of bills were adjusted.

(2) Bills Estimated

Revenue & Customer Service monitors the number of bills that are estimated each month, compared to the total number of monthly bills computed for customers. A bill is estimated if the meter is not read by the designated billing date, or when a meter is read and the reliability of the reading is doubtful and the account is placed on an exception report. Spikes in estimated bills can also occur during extreme weather. For 2012, 4.4% of bills were estimated, for 2013, 3.0% of bills were estimated, and for 2014, 4.6% of bills were estimated, all being higher than the internal goal of less than 2% of bills estimated.

(3) Calls Abandoned

Revenue & Customer Service monitors the number of calls that are abandoned each month, compared to the total number of calls received from all customers. A customer will abandon a call if he or she perceives they have waited for an inconvenient amount of time. Some portion of the abandoned calls is also from customers calling and hanging up on multiple occasions. For 2012, 15.1% of calls were abandoned, for 2013 18.4% of calls were abandoned, and for 2014 13.7% of calls were abandoned, all percentages being higher than the desired goal of less than 10% of calls abandoned. SWBNO is focusing on hiring and training new call center representatives to provide better service in this area.

(4) Emergency Calls Abandoned

Revenue & Customer Service monitors the number of emergency calls that are abandoned each month, compared to the total number of emergency calls received from all customers. A customer will abandon a call if he or she perceives they have waited for an inconvenient amount of time. Some portion of the abandoned calls is also from customers calling and hanging up on multiple occasions. For 2012, 16.4% of emergency calls were abandoned, for 2013 15.5% of emergency calls were abandoned, and for 2014 11.8% of emergency calls were abandoned, all percentages being higher than the desired goal of less than 10% of calls abandoned.

(5) Inbound Customer Contacts

Revenue & Customer Service monitors the number of customer contacts each month. Customers contact SWBNO to start or end service, to request information about their bills, to report concerns about their water service, sewer connection, street flooding, or solid waste sanitation service, and other matters. For 2012, an average of 22,375 contacts per month was recorded, for 2013, an

average of 22,270 contacts per month was recorded, and for 2014 an average of 23,004 contacts per month was recorded. SWBNO is working to improve this metric, analyzing what events trigger calls in order to determine methods to reduce the call volume.

4. Information Systems

The Information Systems Department (Information Systems) manages the software and hardware technology systems that support SWBNO's operations. Information Systems performs its responsibilities via a contract with Xerox. Contract services have been used by SWBNO since approximately 1988. In total, this unit includes seven budgeted SWBNO employees and 31 employees of Xerox and Major Services. The majority of the contract with Xerox is related to providing O&M activities such as Help Desk assistance for employees, personal computer technicians and programming support of the existing software. The other major part of the contract deals with supporting activities related to implementing new systems to replace the current systems. The contract with Xerox is currently on a month to month extension and Information Systems is in the process of evaluating a new contract with Xerox or other alternatives.

SWBNO's technology systems are functional, but are outdated and in need of upgrades or replacement. In response, SWBNO has begun the process of replacing several of its most important business technology systems. The first planned replacement is of the CAM billing system. This system, in place since approximately 1988, is a COBOL, batch system that was developed in-house and is used to bill for water and sewer service. The system also handles sanitation billing for the City. SWBNO selected Cogsdale® Customer Service Management (CSM) system as the replacement of the CAM billing system. Information Systems anticipates that the timeline for complete conversion to the new CSM system is 2016.

Information Systems has also begun the process of replacing its human resources system. This human resource software system has been in place since the mid-1990s. It includes payroll, position control, worker's compensation and personnel management functions. Most notable is that SWBNO's timesheet process is still a manual and paper-driven process. Information Systems is looking to replace the existing system with CGI's human resource management system. The RFP process has just begun with CGI, therefore implementation isn't expected until late 2015 or early 2016. The new system needs to be able to interact with the City's human resource system as SWBNO employees are part of the City's Civil Service program.

Information Systems anticipates that soon after the human resource management system is in place, it will replace its financial system. Information Systems is looking at CGI's financial management system, but has not decided on the vendor to date. Generally, the existing financial system, which is a COBOL-based program that was installed in approximately 1994, includes modules for managing the budget, tracking fixed assets (including inventory control), and performing accounting and purchasing functions. The individuals that have developed the COBOL-based programming for the system will be eligible for retirement in the coming years; therefore, Information Systems is taking prudent steps to plan for a replacement financial system. The replacement is expected to proceed during the 2016-2017 timeframe.

Another IT system managed by Information Systems is the Cassworks® system that is used to create and complete field service work orders. While Cassworks® appears functional for initiating

and completing basic field service work orders, it lacks the functionality that would allow SWBNO to begin an enhanced asset management program. Thus, Information Systems has been assessing whether a move to an asset management system such as Cityworks® by Azteca would be warranted. Further evaluation of this potential move is anticipated in the coming years. The replacement of this system is expected to take approximately five years as it will be a complete replacement of the existing system with new technology.

In addition to the major systems noted above, Information Systems also is responsible for several other SWBNO initiatives, including the following: Personal Computer (PC) management and support; housing of GIS software; smart phone tracking and management for eligible employees; security cameras; and records and data management.

5. Emergency Management

The Emergency Management Department (Emergency Management) is primarily responsible for the planning associated with ensuring that SWBNO can provide effective water, sewer, and drainage service to customers during hazardous events, while minimizing the cost and damage to property from such events. This includes planning to ensure that employees and critical assets are prepared to perform during hazardous conditions. There are five full-time employees in Emergency Management, with three part-time employees. The Director is a FEMA certified emergency manager that has been at SWBNO for almost 20 years.

There are two primary responsibilities that fall to Emergency Management. The first is to ensure that SWBNO is prepared to provide its core water, sewerage, and drainage services should a disaster occur. The second is to track the completion of FEMA funded projects to ensure compliance with associated requirements.

To prepare for future incidents that may disrupt water, sewerage, or drainage service, Emergency Management completed a Hazard Mitigation Plan in 2010. The plan evaluates various potential occurrences such as hurricanes, earthquakes and floods to their potential for disrupting normal service to SWBNO's customers. The plan then includes recommendations to mitigate the impact from the potential occurrences. Examples of mitigation include storm proofing of critical pump stations or installing backup generators to ensure power delivery during a disruption of power. The Hazard Mitigation Plan is developed to be compliant with FEMA Hazard Mitigation Grant Programs (HMGP) and the Disaster Mitigation Act of 2000, so that SWBNO can be eligible to directly apply for available FEMA grants should recovery be necessary. As seen in the CIP, there is significant funding for projects related to the HMGP.

Emergency Management also maintains an emergency management plan that is reviewed on an annual basis, primarily before the typical hurricane season; to ensure that managers are familiar with the plan of action should an emergency occurrence disrupt normal operations. The emergency management plan is available through an in-house app developed for smart phone operating systems.

Emergency Management is responsible for tracking and closing out FEMA-funded projects that are being completed after the occurrence of Hurricane Katrina. Emergency Management works with SWBNO project managers and the State of Louisiana to ensure that grant funds are used in compliance with applicable FEMA and state guidelines. There are approximately 490 projects

totaling approximately \$852 million that are being tracked by Emergency Management. Emergency Management indicates that both internal and external audits of SWBNO's grant tracking program have not revealed any significant problems with how grant funded projects are implemented and completed. Overall, it appears that Emergency Management is well versed in the state and federal requirements for grant funded projects.

6. Personnel Administration

The Personnel Administration Department (Personnel) manages the personnel administration for SWBNO. There are a total of 14 employees in Personnel with no vacancies that focus on personnel operations and training. The general responsibilities of Personnel consist of the following:

- Recruiting and hiring
- Benefits administration
- Promotions, transfers, retirements, and terminations
- Training
- Tuition reimbursement program
- Retirement Administration

Employees of SWBNO are generally subject to the same civil service rules that govern employment with the City of New Orleans. This includes job classifications and pay scales for water, sewer, and drainage employees that are commensurate with other City job functions. The City's Civil Service Department is responsible for administering the civil service policies of the City, including procedures for SWBNO to request the filling of vacancies, hiring of new employees, as well as other personnel functions. This inhibits SWBNO's ability to directly hire for vacancies, but Personnel has been proactively recruiting at local job fairs to attract future employees are required to apply through the City's Civil Service Department.

There are four individuals in Personnel who manage employee training for SWBNO. They assist with arranging training that is available through the City Civil Service Department, local community colleges and other venues. Recently, SWBNO terminated its in-house training program conducted via a contract with Deborah Gould & Associates because it was difficult to get a sufficient amount of employees to participate in the program. Currently, training is primarily completed through online courses with supplemental training through on-site and off-site training. At one time, SWBNO had a full-time training group to arrange and track employee training. Now that it is included in Personnel, the tracking of training has not occurred during recent years. Personnel plans to re-implement the tracking of training for SWBNO in the near future. More technical and operator-focused training is managed under the General Superintendent's office by the respective operating units.

The succession planning initiative remains an open priority for Personnel. Per the SWBNO strategic plan, this includes developing succession plans and performing knowledge transfer for all managerial positions. This is particularly important for individuals that are in the DROP program or eligible for retirement.

7. Purchasing

The Purchasing Department (Purchasing) is responsible for the procurement of all goods and services for SWBNO. This includes miscellaneous materials and supplies, as well as professional

services in accordance with Louisiana state procurement laws. There are a total of six budgeted employees in Purchasing, and no vacancies.

Generally, the purchasing of goods and services consists of obtaining Board approval to advertise for procurement of a specific good or service; advertisement of bid to prospective bidders; conduct of pre-bid meeting to provide bidders with opportunity to ask questions; receipt and tabulation of bids; contract approval; obtainment of signatures; and monitoring of contracts while in effect. For services such as engineering or other professional services, the process is essentially the same except that Requests for Qualifications (RFQ) are used to first ensure that qualified firms respond. At this time the Purchasing handles about 2-5 construction phase contracts a month. In the 2013 to 2014 time frame, purchasing awarded 31 contracts for a total of \$97 million.

A challenge for Purchasing is that the current system for developing a project or requesting a good or service is very paper dependent. Thus, the required signatures and inputs from managers involved in the procurement process are routed via SWBNO's mail system for the various approvals. For capital project bids, the current process can sometimes take 6 to 8 months from project development to obtaining final signature on contracts by the Mayor. SWBNO is working on streamlining the process by avoiding final approval by the Mayor and allowing the Board to approve contracts. Another challenge is that three of the six current staff members, are on DROP and approaching retirement. . Thus, as SWBNO plans on implementing a significant capital program over the coming years, it will be necessary to hire and train qualified employees to keep the projects on track.

8. Risk Management

The Risk Management Department (Risk Management) is responsible for helping SWBNO managers create a safe working environment for all employees, as well as handling the various insurance claims that arise during the course of business. There are 12 budgeted positions within Risk Management and three vacancies.

To promote a safe work environment across SWBNO, Risk Management conducts inspections of facilities on an annual basis to identify workplace hazards. Risk Management then works with onsite managers to mitigate or correct the identified hazards to prevent workplace injuries. Additionally, construction projects and work repair sites are spot checked to ensure that safe practices are being used, Personal Protective Equipment (PPE) is being used, and that workers have the appropriate licensing and training as necessary. Should a safety incident occur, there are two Safety Review Boards (one for auto-related incidents; one for non-auto-related incidents) that review the incident to determine the root cause and responsibility of the incident.

Risk Management also oversees claims from third parties that arise during the normal course of business. Claims can arise from a variety of issues such as vehicle accidents, main breaks, or other occurrences. SWBNO is fully self-insured, thus, Risk Management handles all claims that are made against SWBNO. This includes obtaining and evaluating damage estimates, and working with the Legal Department to deal with any issues that arise from the claims process.

D. STRATEGIC PLAN

In 2011, in order to determine the future direction of the organization, the SWBNO began the process of creating a Strategic Plan (Plan) for the ten-year period, 2011-2020. The Plan can be seen at the following link: <http://www.swbno.org/docs.asp>. The Board of Directors approved the initial Plan in September 2011. Since then, the Plan has been updated and revised, with the most recent version adopted by the Board of Directors in February 2013. The Plan presents SWBNO's Mission, Vision and Values; Goals and Objectives; Assumptions; Strengths, Weaknesses, Opportunities, and Threats; and Strategies and Tactics.

The SWBNO's 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."

The Mission is to "have the trust and confidence of our customers for reliable and sustainable water services."

The Goals and Objectives outline how SWBNO will meet customer and stakeholder requirements. Identified stakeholders include ratepayers, taxpayers, elected officials, employees, bondholders, regulators, and other entities that interact with SWBNO on a day to day basis. The Plan indicates how SWBNO intends to interact with each of these stakeholders in a professional performance-driven manner, with one of the most notable goals to operate, maintain, rehabilitate, and replace the drinking water, sewerage, and drainage systems to deliver water services in perpetuity.

While SWBNO has the strength of an abundant water supply and reliable backup power supply, it has identified weaknesses that will impact its ability to achieve its mission, such as unresolved damage to buried infrastructure, extensive water loss, deferred maintenance of infrastructure, aging workforce, difficulty in hiring experienced technical employees, and information technology systems which have exceeded their design life.

The result of SWBNO's strategic planning process is the creation of six strategies to focus on continuous improvement over the coming years. These include:

1. Building the necessary infrastructure for the water, sewerage, and drainage systems in coordination with the City and other infrastructure providers;
2. Building SWBNO's financial capabilities;
3. Improve customer service capabilities;
4. Enhance business performance;
5. Enhance the capabilities of employees; and
6. Protect the environment.

Each of these strategies has tactics to provide more specific direction to SWBNO management with respect to implementing the strategies and thereby meeting the stated goals and objectives.

The Plan developed by SWBNO is a proactive document. It provides a foundation for management and employees to work toward rebuilding or strengthening the assets and performance of SWBNO over the coming years. The strategic plan should be followed up with department-developed tactical plans and metrics for tracking performance toward stated goals and objectives.

E. CONCLUSIONS

Based on the review of SWBNO's organizational and managerial structure, Black & Veatch has reached the following conclusions:

- SWBNO is organized effectively to carry out its mission to provide drinking water, sewerage, and drainage services to the citizens of New Orleans. This includes managers who are experienced in the critical areas of utility finance, planning, operations, and engineering. There are administrative units tasked with key utility functions such as planning and budgeting, emergency management, human resources, and customer service. The operational units consist of departments focused on providing quality drinking water, sewerage, and drainage service.
- The management team consists of individuals with significant water, sewerage, and drainage experience. This experience has been developed both internally at SWBNO, and also 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 25 percent of current employees are either on the DROP program or are eligible for retirement. Unless they 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 adjust to the pending retirements.
- There are several departments that are experiencing critical vacancies, including Engineering, Internal Audit, Information System Administration, Planning & Budget, Plumbing, and Support Services. SWBNO has made progress with reducing vacancies associated with water, sewer, and drainage operations and continues to address these vacancies as soon as possible to ensure effective operational and maintenance performance, and administrative oversight.
- With pending retirements, current vacancies, and a significant CIP to be implemented, a detailed staffing analysis of the various departments appears to be warranted. The staffing analysis, including an assessment of necessary skills and levels by department, can assist SWBNO's management with the efficient replacement of employees, as well as the development of revised job descriptions for use with the Civil Service hiring process.
- Many of the day to day administrative processes conducted by SWBNO are primarily paper-driven and not supported by its core information systems. In several instances, these information systems, while still functional, have been in place for almost 25 years. SWBNO is beginning a multi-year process to replace its core information systems,

including information systems necessary for customer account management and billing, human resources, financial management and work order management.

- **SWBNO has developed a strategic plan to address current and future challenges. The plan includes an assessment of strengths and weaknesses; as well as strategies and tactics for strengthening the organization over the coming years. There is specificity for key managers of the administrative and operational units to understand their role in the plan's implementation. The strategic plan should be followed up with department-developed tactical plans and metrics for tracking performance toward stated goals and objectives.**

V. Water System

A. INTRODUCTION

SWBNO has been providing drinking water to the City since the early 1900s and serves the surrounding area with clean, treated drinking water from the Mississippi River. The major elements of its water system include three river supply intakes, two treatment plants, storage facilities and distribution network. The water system service area is shown in Figure 2 on the following page.

B. WATER SUPPLY

SWBNO's water system presently supplies water to New Orleans which is located on the east and west banks of the Mississippi River. The Mississippi River supplies a reliable supply of water to meet the demands of the greater New Orleans area. As the Mississippi River adjacent to New Orleans is a major commercial shipping artery for various materials, a major risk that SWBNO must be prepared for is the occurrence of spills that could potentially pollute the water source. Thus, SWBNO participates in the EWOCDS run by the LDEQ. This system consists of a series of monitoring stations along the Mississippi River that notify LDEQ if any of the 60 USEPA listed pollutants are detected in the river water samples. The LDEQ disseminates the information to the program participants via the Department of Health and Hospitals, allowing an early warning of possible pollutants in the water source. The LDEQ maintains EWOCDS equipment at all participating locations; the program participants provide the manpower to collect and analyze the samples.

1. System Capacity

SWBNO delivers water through an integrated system of raw water intake structures, treatment, storage, high service pumping, and distribution piping. The current treatment capacity of the Carrollton WPP located on the East Bank of the Mississippi River is 210 mgd which is by far the larger of the two plants. The Algiers WPP on the west bank of the Mississippi River has a current treatment capacity of 24 mgd. The Carrollton WPP production has ranged from 130 to 140 mgd since Hurricane Katrina in August of 2005. Prior to the levee failure caused by Hurricane Katrina, the plant was treating an average of approximately 120 mgd. The Algiers WPP has ranged from 10 to 12 mgd in average day production since the hurricane. At this time, the raw water facilities and treatment plants are able to meet the current and future demands of SWBNO.

Table 3—Water System Capacities

FACILITY	RAW WATER PUMPING CAPACITY	CURRENT TREATMENT CAPACITY	WATER STORAGE CAPACITY
	mgd	mgd	Treated Water mg
Carrollton WPP	310	210	35.8
Algiers WPP	55	24	10
System Totals	365	234	45.8

mg – million gallons

mgd – million gallons per day

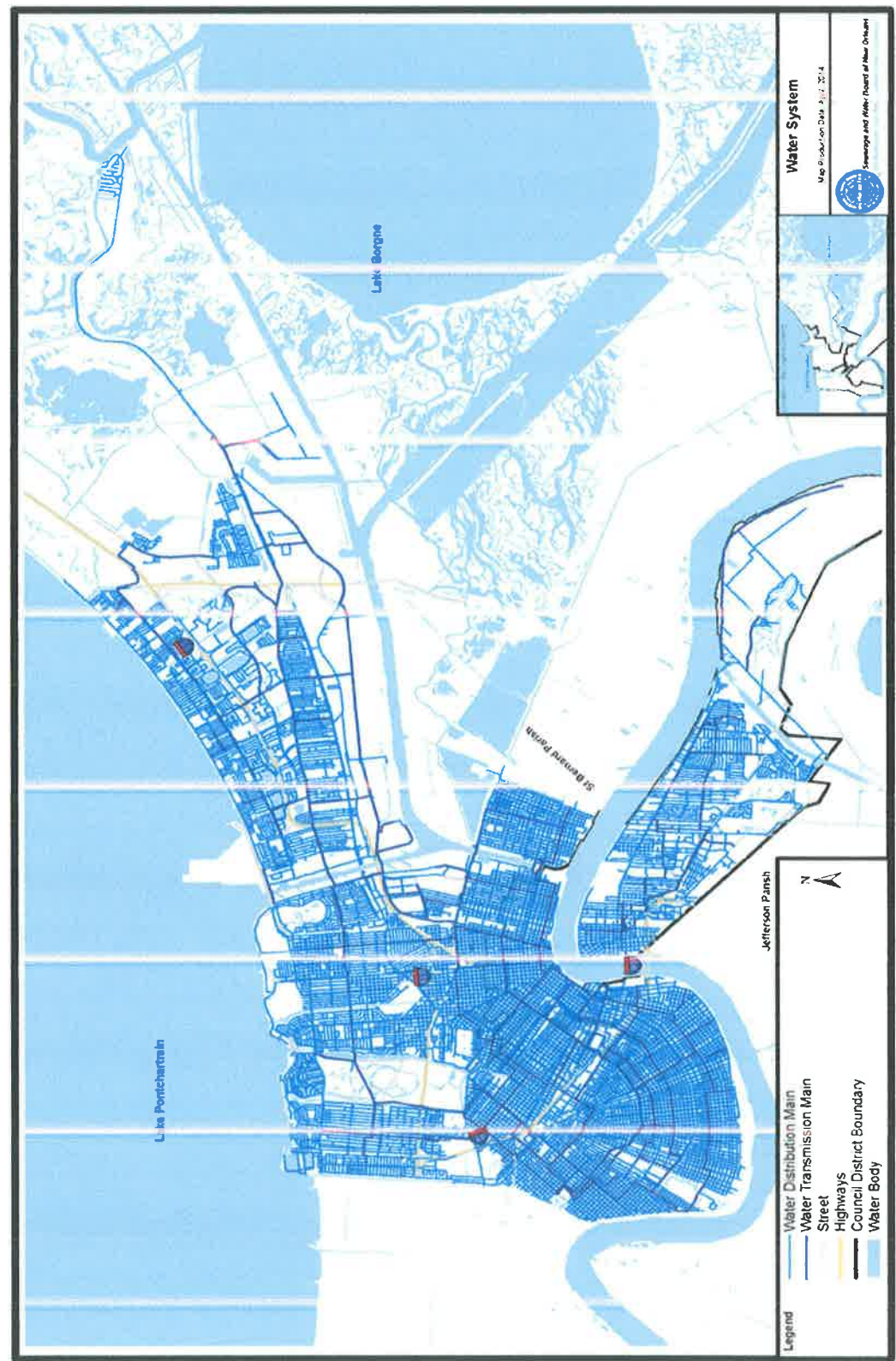


Figure 2—Overview of the SWBNO Water System

2. Population

The estimated population for Orleans Parish in August 2005, prior to Hurricane Katrina was 463,000. In November 2005, the population was estimated at 138,700 or about 30 percent of the pre-Hurricane Katrina population. At July 2013, the U.S. Census Bureau estimated New Orleans' population at 378,715, or 82 percent of the August 2005 population. As part of its annual report to the USEPA for the consent decree, SWBNO also provides an estimate of New Orleans' population. For the 2014 annual report, the estimated population for the east bank is 333,403. Combined with the 2013 annual report value of 53,053 for Algiers, the total is estimated at 386,456, or 83.4 percent of the August 2005 population.

C. WATER SYSTEM PLANNING INITIATIVES AND COMPLIANCE

Based on discussions with staff, and a review of annual water quality reports, SWBNO is in compliance with all drinking water regulations. The USEPA promulgated two regulations in 2005 that went into full effect in 2012. SWBNO is in compliance with these new regulatory requirements as described in more detail below. This section describes SWBNO's water quality initiatives, compliance with present regulations, and planning initiatives and actions being taken to meet anticipated future regulations, water system demands and goals.

1. Regulatory Requirements

The water operations of SWBNO are subject to the requirements of the SDWA of 1974, as amended in 1986 and 1996. The 1986 amendments extended the regulatory agenda of the USEPA to include, among other things, the development of drinking water standards for 83 contaminants, criteria by which surface water supplies would be required to utilize filtration performance standards for disinfection, and the banning of lead-containing materials from distribution and home plumbing systems. The 1996 amendments changed the emphasis of developing rules only slightly, but these latest amendments did stress some new issues such as the protection of source waters, annual reports to consumers on the quality of their drinking water, regulation of filter backwash water within treatment facilities, and the establishment of a state revolving loan fund. Since 1998, several additional rules have been implemented.

The Interim Enhanced Surface Water Treatment Rule (ESWTR) and the Stage 1 Disinfectants and Disinfection Byproducts Rule (D/DBPR) were both promulgated in December 1999 and became effective in January 2002. The Filter Backwash Recycling Rule was promulgated in May 2001 and became effective in December 2003. The Radionuclides Rule was promulgated in December 2000 and also became effective in December 2003. The Arsenic Rule was promulgated in March 2001 and became effective in January 2006. The Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) and the Stage 2 D/DBPR were promulgated in January 2006 and became effective in March 2006 with full compliance required as of April 2012. The Groundwater Rule (GWR) was promulgated in November 2006 and became effective January 2007, but is not relevant to SWBNO who relies exclusively on surface water from the Mississippi River. Several of these key regulations are discussed below. The third Unregulated Contaminant Monitoring Rule (UCMR-3) was published in May 2012 with monitoring to begin in 2013. In addition to the above requirements, the State of Louisiana has recently required utilities to comply with a temporary emergency rule that has been established to prevent the harmful effect of amoeba parasites that have been found in two other

water systems in Louisiana. The emergency rule was renewed on March 5, 2014 and effective March 6.

The following sections provide an overview of specific areas of the SDWA and SWBNO's compliance. Concentrations are shown in milligrams per liter (mg/L) and micrograms per liter (µg/L). One milligram per liter is the equivalent of one part per million, while one microgram per liter is the equivalent of one part per billion.

a) Lead and Copper Rule

The Lead and Copper Rule was promulgated in June 1991. It addresses the control of copper and lead that may leach from home plumbing systems. Compliance with the rule is based upon treatment technique requirements that are triggered if measured lead and copper levels exceed the action levels of 0.015 mg/L for lead or 1.3 mg/L for copper at more than 10 percent of customer taps sampled. SWBNO adds lime to water to control the rate of metal loss by corrosion in the water supply network, which includes the internal piping in residences and commercial or industrial facilities.

Compliance Status: SWBNO is in full compliance with this regulation. Based on 2013 results, it achieved a 90th percentile lead level of 0.006 mg/L and 0.002 mg/L for the service areas served by the Carrollton and Algiers WPPs, respectively. It also achieved a 90th percentile copper level of 0.1 mg/L and 0.0 mg/L for the service areas served by the Carrollton and Algiers WPPs, respectively. USEPA uses a 90th percentile action level for the lead and copper rule. This means that hypothetically, a system with 10 required samples would use the ninth highest result to compare to the action levels for lead and copper.

b) Total Coliform Rule (TCR)

The TCR was published in 1989 and became effective in 1990. It set goals and limits for the presence of total coliforms in drinking water and required water systems to monitor for total and fecal coliform at specific locations throughout their distribution systems. USEPA published revisions to the TCR in February 2013. The Revised Total Coliform Rule (RTCR) goes into effect April 1, 2016.

The RTCR removes the maximum contaminant levels (MCL) for total coliform that was established under the TCR, and focuses more on using detection of total coliform as a means of identifying and addressing potential contamination issues. The rule also establishes criteria that enable systems to transition to reduced monitoring requirements. Such a system creates incentives for better system operation and has the potential to reduce monitoring burden. The RTCR maintains the MCL for *E.Coli* and the associated required actions.

Compliance Status: A review of the annual water quality reports for SWBNO shows that it is in compliance with the TCR.

c) Disinfectants/Disinfection By-Products Rule (D/DBPR)

This rule regulates levels of disinfectants and disinfection by-products. Stage 1 of the rule was promulgated in December 1998 and became effective on January 1, 2002. Stage 2 of this Rule was promulgated in January 2006 and became effective on March 6, 2006. These rules contain

maximum residual disinfectants levels (MRDLs), MCLs for disinfection by-products and a treatment technique for total organic carbon (TOC) removal. The Stage 1 Rule reduced the MCL for total trihalomethanes (TTHM) from 100 µg/L to 80 µg/L and established an MCL of 60 µg/L for the sum of five haloacetic acids (HAA5), another group of disinfection by-products. In addition, MRDLs were established for chlorine (4 mg/L), chloramines (4 mg/L), chlorine dioxide (0.8 mg/L), chlorite (1.0 mg/L), and bromate (0.010 mg/L).

Compliance Status with Stage 1: SWBNO is in compliance with the required MCLs and treatment technique based on a review of the 2014 Water Quality Report. Both water treatment plants are being operated to achieve TOC removal credits at or above the required running annual average. The highest running annual average level of TTHMs at the conclusion of 2014 for SWBNO's two water treatment plants was 29 µg/L. For HAA5s, the highest running annual average was 31 µg/L. SWBNO is in compliance with the 4.0 mg/L MRDL for chloramines, with the highest running annual average of monthly samples measuring 3.4 mg/L.

Compliance Status with Stage 2: The Stage 2 phase of the D/DBPR was promulgated in January 2006 and became effective on March 6, 2006 with compliance monitoring required as of April 2012. This rule maintains the TTHM and HAA5 MCLs at 80 µg/L and 60 µg/L, respectively, but changes the method of calculating the system annual average from running annual averages (RAAs) to locational running annual averages (LRAAs). Per discussions with SWBNO, LRAA concentrations for TTHM and HAA5s are similar to the system-wide averages seen for the Stage 1 Compliance which would indicate compliance with Stage 2.

d) ESWTR

This rule was promulgated in December 1998 and became effective on January 1, 2002. This Rule lowered the turbidity treatment technique level to 0.3 nephelometric turbidity unit (NTU) in 95 percent of the samples from the previous level of 0.5 NTU. It also set a maximum turbidity of 1.0 NTU in the finished water and required installation of continuous turbidity monitors on each filter. The Rule requires that operating procedures be revised and follow-up investigations be conducted if individual filters are found to exceed specific monitoring criteria.

Compliance Status: SWBNO is in compliance with all requirements of this Rule. SWBNO maintained filtered effluent turbidity at levels less than or equal to 0.3 NTU during 2014.

e) Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)

The LT2ESWTR was promulgated in January 2006 and became effective on March 6, 2006 with compliance monitoring to begin in April 2012. Regulatory requirements under the LT2ESWTR are based upon the concentration of *Cryptosporidium* or *E. coli* in the source water of individual treatment plants. The Rule required microbial monitoring (2 years of monthly *Cryptosporidium* and *E. coli* monitoring) to determine each drinking water treatment plants average source water *Cryptosporidium* level. Based on this level, the treatment plants are placed in different "bins" with varying removal and/or inactivation credit requirements, with higher influent *Cryptosporidium* levels requiring greater removal or inactivation. Utilities must meet their resulting requirements by implementing enhanced treatment practices as defined in the "microbial toolbox." The microbial toolbox defines a range of treatment, prevention or optimization options that utilities can

implement to obtain the additional removal and/or inactivation credits required to meet the treatment technique of this Rule.

Compliance Status: Per discussions with SWBNO, the required raw water sampling was conducted to assess the *Cryptosporidium* levels in the raw water. Based on those results, SWBNO indicates that no additional treatment credits were required.

f) Consumer Confidence Reports Rule

The 1996 SDWA Amendments require SWBNO to issue an annual report on treated water quality to its consumers, called the Consumer Confidence Report (CCR).

Compliance Status: SWBNO has done this annually in the format required by the Rule. SWBNO's CCR meets the requirements and provides educational information regarding source water and the water treatment process, along with information about current initiatives and projects being completed by SWBNO.

g) Filter Backwash Recycling Rule (FBRR)

The FBRR became effective in December 2003. The recycle streams regulated by the FBRR are filter backwash water, sludge thickener supernatant, and liquids from dewatering processes. The rule requires recycled flows to pass through all processes of the treatment plant in order to maintain removal credit for *Cryptosporidium*. In the case of conventional treatment facilities like those of SWBNO, this requires the return of recycled streams prior to or concurrent with the point of primary coagulant addition.

Compliance Status: The Carrollton WPP includes the ability to deliver water used in the filter backwash process to the beginning of the plant where it is recycled through the entire treatment process; therefore it meets the requirements of the FBRR. The Algiers WPP backwash and sludge from the settling tanks is discharged via permit to the Mississippi River.

h) Emergency Rule

As mentioned above, the State of Louisiana has recently established a new rule that is focused on preventing any harmful instances of amoeba parasites entering state water systems. Particular focus of this rule is on two areas, including requiring systems to maintain a minimum disinfection chloramine residual of 0.5 mg/L, as well as additional TCR sampling focused on areas of the distribution system with longer residence times. The new rule requires a greater number of TCR samples each month, as well as the reporting of instances where a system's disinfection residual drops below 0.5 mg/L.

Compliance Status: SWBNO is in full compliance with this new rule.

i) Source Water Assessment Program

The 1996 SDWA Amendments required each state to develop a Source Water Assessment Program, designed to stress protection of the source water prior to treatment. The Source Water Assessment for SWBNO was completed in August of 2001. The Assessment provides information related to potential threats or risks related to the source water, including high, medium and low risks to SWBNO's treatment plants. As the intakes for SWBNO are located on the Mississippi River, high

threats includes spills from barge traffic, storage tanks located adjacent to the river, and chemical plants

Compliance Status: As noted above, the source water assessment was completed for both the Carrollton WPP and Algiers WPP in 2001.

j) Arsenic Rule

The Arsenic Rule became effective on March 3, 2001 and established an MCL of 0.01 mg/L for total arsenic. The compliance date for systems with arsenic levels that exceed the MCL is January 23, 2006.

Compliance Status: SWBNO is in compliance with the Arsenic Rule. In 2014, Arsenic levels in the finished water supply were well below the established MCL of 10 ug/L.

2. Water Accountability

Table 4 on the following page provides SWBNO's assessment of non-revenue water for the years 2012, 2013 and 2014. SWBNO has a high percent of non-revenue water. Some of the non-revenue water is considered a loss (leaks), while other non-revenue water is free water, metered and accounted for. Out of the total water pumped in 2014, only about 25.7% is water sold to customers. The other 74.3% of the water pumped is either tracked and accounted for as free metered water (municipal swimming pools, libraries, display fountains, parks and playgrounds, fire department and police department use, etc.), or it is categorized as unidentified leaks, accounted for leaks, or unmetered water used in firefighting or flushing of sewers. Water loss through leaks and unmetered use is by far the largest category of non-revenue water, accounting for 71.1% of the total pumped water in 2014. This category includes several items, the majority of which is likely unmeasured leaks in the distribution system. This amount of water results in a significant negative impact to SWBNO's operating costs and revenue.

Some other information about the non-revenue water:

- The free metered process water category (fountains, municipal swimming pools, etc.) accounts for approximately 1.20% of the total pumped water, and decrease slightly from 2013 to 2014.
- The free metered process water category accounts for 1.52% of the total pumped water in 2014, a increase from 2013.

Table 4 on the following page shows a summary of SWBNO's non-revenue water for 2012, 2013 and 2014 as it compares to the total pumped water for each year.

Table 4—SWBNO's Water Pumped and Consumed

CATEGORY	2012		2013		2014	
	Gallons	Percent	Gallons	Percent	Gallons	Percent
Free Metered Process Water to Various City Departments and Charitable Institutions	672,837,900	1.23%	745,453,200	1.33%	622,811,700	1.20%
Free Metered Process Water by SWBNO	622,443,400	1.14%	593,075,100	1.06%	791,880,700	1.52%
Allowance for Leaks on Private Property	205,961,300	0.38%	209,863,900	0.38%	227,469,900	0.44%
Water Loss through Leaks and Unmetered Use	39,419,612,200	72.04%	40,753,881,800	72.90%	36,941,784,500	71.13%
Water Sold to Customers	13,801,965,200	25.22%	13,599,636,000	24.33%	13,352,983,200	25.71%
Total Water Pumped	54,722,820,000	100.00%	55,901,910,000	100.00%	51,936,930,000	100.00%

Additionally, a consultant for SWBNO has conducted a water audit in accordance with AWWA guidelines for the fiscal year 2008-2014 timeframe. The audit also shows that non-revenue water by volume is approximately 76 percent. According to the consultant's report, the Infrastructure Leakage Index, which is a ratio of annual real losses to unavoidable annual real losses, reflects ratios for SWBNO that are significantly higher than other large U.S. water systems.

To address the issue of non-revenue water in the SWBNO water system, there are several initiatives that are currently being planned or conducted including:

a) Leakage Management

The Networks Department has been employing leak detection technology to proactively seek, find, and fix leaks in the system. This technology includes proactive use of acoustic equipment to identify and subsequently fix leaks as they are discovered. It also has included using SmartBall® technology to survey larger transmission mains for leaks. While SWBNO believes this program has been effective, it has not been able to find significant leaks that would explain the large value of Leaks and Unmetered Use noted in the Table above.

b) Water Main Replacement Program

Another initiative that is being pursued is the FEMA-funded project to replace much of the water distribution system. This project is focusing on the identification of portions of the distribution system that experience multiple main breaks for replacement. The CIP includes approximately \$15

million annually to identify and replace main segments in the east bank portion of the water system.

c) Account Validation

The Plumbing Department is focusing on account validation related to ensuring the proper billing of existing customers. This program was initiated in 2011 and focuses on reviewing accounts in the field to ensure meters are working accurately and accounts are being billed properly.

d) New Meters and Advanced Metering Infrastructure (AMI) Equipment

The determination of non-revenue water is dependent on metered water leaving the WPPs, as well as metered water at the customer endpoint. SWBNO has included a project in its CIP to fund the installation of AMI equipment (\$20 million), as well as associated meters (\$20 million). This initiative would be funded by internal SWBNO funds.

e) Water Hammer Program

The Water Hammer Program is to address surges within the water distribution system which damage water mains. Two elevated tanks will be added to the distribution system to minimize surges. In addition, high service pumps and piping will be rehabilitated to reduce the impact of water hammer on the distribution system. Improvement include converting the high service pumps to variable speed pumps, as well as improvements to better control the opening and closing of major valves.

Each of the aforementioned initiatives should have a positive impact toward reducing non-revenue water over time. It is recommended that an annual, internally-driven water audit using the AWWA methodology continue to be conducted to 1) gain a better understanding of the causes of the high non-revenue water level; and 2) track improvement toward a more reasonable non-revenue water level.

3. Water System Planning

SWBNO has several planning initiatives ongoing that are specific to assessing the long-term needs of the water supply and system.

a) Water Quality Master Plan

SWBNO recently completed a Water Quality Master Plan to assess the current condition of the treatment plants. The assessment is a holistic look at the current treatment process and the future needs of New Orleans and surrounding communities and provides guidance with respect to prioritizing CIP projects related to the Carrollton WPP and Algiers WPP. Management is in the process of adopting the final document and anticipates the development of future capital projects based on the Water Quality Master Plan.

D. WATER TREATMENT PLANTS

The water system is served by the Carrollton WPP and Algiers WPP. Both plants utilize water from the Mississippi River. Each plant provides similar treatment, consisting of raw water coagulation, flocculation, sedimentation, disinfection, media filtration, fluoridation and corrosion control.

Finished water can be stored at the treatment site for later distribution, or discharged directly to the distribution system. Portions of the Carrollton WPP date from the early 1900s. The last major

improvements and additions were completed at the plant in the 1960s. The Algiers WPP was built in the early 1900s and the last major improvements were completed in the 1990s. The plants have been maintained over the years to ensure quality water for the surrounding community.

1. Carrollton WPP

The Carrollton WPP became operational in the early 1900s. The plant draws water from the Mississippi River and sends treated water to either the Claiborne Pumping station, Panola Pumping Station or to the two steam driven pumps within the Power Station building. The Carrollton WPP is the larger of the two water plants, with an operating capacity of 232 mgd. Plant production information for the past five years is shown below in Table 5.

Table 5—Carrollton WPP Annual Plant Water Treated per Day

FISCAL YEAR	DAILY OUTPUT (MGD)	
	AVERAGE	MAXIMUM
2009	138	148
2010	137	157
2011	139	151
2012	138	163
2013	131	142
2014	133	157

The plant is budgeted for a staff of 72 but is in need of experience operators with Level IV certification. Currently, the personnel with Class IV licenses spend overtime to cover shifts that need class IV operators. This is consistent with the vacancies seen in Section III of this Report.

The Carrollton WPP is currently treating approximately 135 mgd of water in spite of serving only 83.4 percent of the pre-Katrina population. Leaks in the distribution network are a source of persistent problems as additional unaccounted for water is also an issue. The water delivery pressure has been consistent throughout the last year at 70 pounds per square inch (psi) to maintain minimum pressure throughout the distribution system.

The plant has recently completed commissioning a new sodium hypochlorite feed system for disinfection. This has eliminated the need to bring in large rail cars of chlorine gas through the City of New Orleans. The Risk Management Plan has been updated to reflect the change from chlorine gas to sodium hypochlorite and the reduced hazards to the surrounding area. Some of the other major accomplishments related to the facility are listed below:

- There have been no violations at the Carrollton WPP within 2014 with respect to meeting drinking water standards.
- The G4 sedimentation basin rehabilitation was completed but is still not service. It is anticipated that G4 will be placed into service later this year.
- L3 sedimentation basin was removed from service on September 10, 2014 for a complete rehabilitation.

- All chemical systems are functional.

Items of concern at the plant include the following:

- The piping for the Sycamore filters is severely corroded and in need of replacement.
- Media replacement for Claiborne filters is currently ongoing.
- Eight of 28 filters in the Sycamore filter building are not functional due to failures of valves and actuators.
- Nine additional filters of the 28 filters in the Sycamore filter building are operational, but the rate of filtration actuators are not functional and must be controlled manually.
- Static mixing for ferric sulfate is insufficient due to low velocity through the mixers. In addition, the chemical flow through the rotameters that separate flow to the various application points are not accurate and are in need of constant monitoring.
- There are corrosion issues with the finished water tanks which need to be addressed. Tanks should be inspected, cleaned, sandblasted, and painted on a regular basis.
- The lime system is in need of replacement.
- A new dryer for the air compressor is needed with the Sycamore filter building to reduce condensation in the instrument air lines which causes plugging.
- A new compressor and dryer system is required for the Claiborne filter building for instrument air.
- The Sycamore wash water pump for the filters needs replacement. The packing seal was leaking during site visit and the pump is nearing the end its service life. The project has gained approval from the board and is waiting on a notice to proceed. Construction will be completed end of this year.
- The recycle basin pumps need to be replaced. Two of the four pumps are currently inoperable, and the other two pumps are nearing the end of their service life. The design for the pump replacement is complete, and construction will begin next year.
- Due to new Ten State Standards adopted by the LDEQ, all liquid chemical feed systems must have a day tank with walled containment. Currently, double walled tanks are used on site which does not meet the standards.
- The anhydrous ammonia system according to the new standards is required to be in a building and a scrubber system in place in case of a leak. Currently, the SWBNO tank is located outside in the plant yard.
- Overflow vents are recommended for the finished water tanks to reduce the potential for erosion around the tanks.
- The ferric sulfate chemical feed system should be expanded to 30 days of storage. Currently, there is only three to five days of storage onsite.

The CIP includes a variety of projects to address the above issues, most notably CIP Project #122 seen in Section VIII for approximately \$34,490,000 from 2015-2020 for work on the Sycamore and Claiborne filters, which are in poor condition.

2. Algiers WPP

The Algiers WPP began service in the 1900s. The plant was improved several times, including a renovation in the 1980s. The plant draws water from the Mississippi River and serves as the main distribution point the west bank portion of the system. The plant's current operating capacity is 24 mgd. Recent plant production rates are shown below in Table 6.

Table 6—Algiers WPP Annual Plant Water Treated per Day

FISCAL YEAR	DAILY OUTPUT (MGD)	
	AVERAGE	MAXIMUM
2009	10.8	14.0
2010	11.3	15.7
2011	11.7	16.8
2012	11.6	15.5
2013	11.3	15.3
2014	10.4	15.6

There have been no violations at the Algiers WPP within 2014 with respect to meeting drinking water standards.

This plant has had issues with TOC removal, but has been able to use alternative criteria to comply with the regulation. The plant has had no violations in the past year and has fed required chemicals at the required dosages despite issues with the sodium hypochlorite generation system. Due to equipment issues and the cost of keeping the process online, the sodium hypochlorite generation system was decommissioned 6 months ago and the plant converted to liquid sodium hypochlorite.

The facility has partially commissioned a new ferric storage and feed system for flocculation. The new storage and feed system should be finished at the end of 2015. The following are additional improvements required at the Algiers WPP.

- The Supervisory Control and Data Acquisition (SCADA) system is out of service and its absence is impacting plant monitoring capabilities. At the time of the visit, a SCADA node was installed to help the lead operator monitor the turbidity readings from the filters and troubleshoot filter issues. Planned improvements to this system have been on hold due to insufficient funding.
- Nitrification is a problem in the finished water tanks. One cause for nitrification in the tanks can be insufficient mixing within the finished water tanks. A new mixer was purchased and installed within one of the water storage tanks. However, this new mixer has not resolved the current nitrification issues.
- Clarifier No. 3 and 4 are under contract for design of replacement of launder troughs. Clarifier 2 is scheduled to be painted by end of 2015.
- The raw water pumping and piping systems need to be improved to provide redundancy to the intake system. Currently, Intake Station No. 2 cannot provide redundant raw water

- pumping capacity. Modifications to the pumps and piping are required to pump from each station.
- Mud balls have formed in the filters. Super chlorination is helpful to clean the filters and return the filters to optimum efficiency. In addition, a few of the valves and actuators in the filter gallery are in need of replacement.

The plant is adequate to serve the public but is in need of funds to adequately address issues within the plant. The abovementioned issues are either included in the CIP, or are under consideration by SWBNO.

3. Water Quality Laboratory at the Carrollton WPP

The water quality laboratory conducts daily analyses of river water quality and purified water at the Carrollton WPP and Algiers WPP. Water samples from the distribution network are also analyzed at the laboratory facility. The lab continues to meet the State/Federal mandated analytical requirements of the water plants, and is certified by the Louisiana Department of Health and Hospitals for analysis of coliform bacteria.

In addition to coliform analysis, the lab collects samples for protozoan analysis. Other regular analyses include hardness, turbidity, fluoride, ammonia, pH, alkalinity, TOC, dissolved organic carbon (DOC), phosphorus, corrosion monitoring, and chlorine residual at different stages of treatment. The solids are analyzed for total suspended solids (TSS) and total dissolved solids concentrations. River water and finished water samples are analyzed for volatile organic compounds.

The laboratory continues to maintain its involvement in the EWOCDS run by the LDEQ; however, several upstream stations have proved unreliable. Management indicates that the EWOCDS program has also been underfunded by the State of Louisiana, which has caused a reduction in sampling and analysis.

The laboratory is currently adequately staffed with one supervisor, one microbiologist, four chemists, and four technicians. Much of the lab instrumentation and equipment is reaching or has reached the end of its service life and is in need of replacement. Analytical instruments and equipment, such as a new gas chromatograph/mass spectrometer (GC/MS), autoclaves for the microbiology lab, and fume hoods in the chemistry lab are needed. Repairs have been made to the some of the fume hoods and they are operational. Currently, the lab staff is working toward certification of TOC analysis in order for TOC analysis to be performed at the lab facility.

E. WATER PUMPING AND POWER

The Water Pumping and Power unit of SWBNO's Operations Department operates the power plant, as well as the low lift and high service pumps that bring raw water to the plants and pump treated water to the distribution systems. The power plant is located at Carrollton WPP. The power plant is currently undergoing significant rehabilitation work related to the FEMA-funded hazard mitigation project. This project consists of storm proofing the power plant, and rehabilitation of boilers and turbines to improve SWBNO's ability to provide 25 Hertz (Hz) power to the drainage pump stations and other pumping assets during a hurricane or flood event.

Significant assets managed by Water Pumping and Power include:

- Six boilers capable of producing 650,000 pounds of steam per hour. All boilers are to be rehabilitated as part of the hazard mitigation project. #1 and #3 boilers are to be redesigned to include more automation. Currently, the #5 boiler is out of service for rehabilitation.
- Three steam-powered turbines that produce 25 Hz power. #1 Turbine = 6 MW capacity; #3 Turbine = 15 MW capacity; #4 Turbine = 20 MW capacity. Currently, #4 Turbine is out of service for rehabilitation.
- One Natural Gas/Diesel powered turbine that produces 25 Hz power. #5 Turbine 20 MW.
- One Natural Gas/Diesel powered turbine that produces 60 Hz power. #6 Turbine 15 MW.

Significant high service pumping units include:

- Pump A and Pump B are steam-powered pumps located at the power plant. They are each capable of pumping 40 mgd. Pump A rehabilitation was completed and Pump B rehabilitation is scheduled to be completed by the end of the 3rd quarter in 2015.
- The Panola pump station is adjacent to the power plant and includes two pumps capable of pumping 50 mgd each. The pumps have the ability to operate on 25 Hz or 60 Hz power depending on the availability of 60 Hz power from the local electricity provider.
- The Claiborne pump station, located at the Carrollton WPP, consists of four pumps capable of pumping 40 mgd each. Currently, all of these pumps are in operation.

The intake structures for the two Carrollton WPP pump stations include the Old River Station and the New River Station. The New River Station is able to provide sufficient water to the Carrollton WPP. The Old River Station has pumps which are used for backup supply to the Carrollton WPP. The two pump stations cannot be used simultaneously, as the head created by the pumps at the New River Station is too great for the pumps at the Old River Station to overcome.

The Algiers WPP is served by a separate intake structure that is capable of supplying all of its raw water needs. There are also backup intake pumps from a second station for the Algiers WPP to provide redundancy. In addition to the assets above that serve the majority of the SWBNO system, Water Pumping and Power also manages power and pumping assets for the smaller, west bank portion of the system. While the primary power source for the west bank is the local energy provider Entergy, there is a generating station at the Algiers WPP that is capable of generating 60 cycle power using diesel generators. The power generation facility can also generate enough power to support operations at the Algiers WPP. This station is also capable of performing a frequency change to convert 25 Hz power supplied from the power plant at WPP to 60 Hz power for west bank treatment and pumping assets.

As mentioned above, there are significant improvements included in the proposed CIP related to Water Pumping and Power. Two significant projects to be funded by FEMA include:

- FEMA HMGP for power-related projects including, refurbishment of turbines, replacement of power feeds; and design and construction of new Oak Street Raw Water Intake. The cost of these FEMA-funded projects is approximately \$246.7 million from 2015 through 2024.

- FEMA-funded Water Hammer program to rehabilitate low service and high service pumps used to provide drinking water as described above. These projects are expected to cost \$49.1 million from 2015 through 2024.

These projects are designed to rehabilitate key Water Pumping and Power assets from the effects of past hurricanes, as well as to harden and prepare them to sustain operations during future storm events.

F. DISTRIBUTION SYSTEM

SWBNO's distribution system consists of approximately 1,812 miles of main generally ranging in size from 1-inch diameter to 54-inch diameter. There is little storage in the distribution system with the storage located at the treatment plants in ground storage tanks. Key components of the 1,812 mile distribution system also include approximately 29,730 valves and 23,117 hydrants.

The Networks Department provides preventative maintenance in terms of investigating leaks, exercising valves, and inspecting hydrants. The type and number of distribution system-related maintenance work orders completed for 2013 and 2014 are shown below in Table 7:

Table 7—Summary of Distribution Work Orders

TYPE OF WORK ORDER	2013 TOTAL	2014 TOTAL
Investigation of Water Leaks	339	309
Water Valves	1,340	1,190
Water Service Lines	10,027	10,219
Water Mains	1,643	1,647
Hydrants	1,132	1,074
Manholes	25	39
Total	14,506	14,478

As mentioned above, the FEMA-funded Water Hammer project and distribution system replacement will provide significant funds for improving the distribution system. The 2015 – 2020 CIP reflects approximately \$169.1 million in FEMA funds for this initiative, which includes \$120 million for main replacement, as well as eight new water distribution pumps at Claiborne, Panola and Low Lift Pump Stations. SWBNO's Management indicates that the distribution system replacement will be coordinated with City street projects.

G. WATER SYSTEM CONCLUSIONS

Based on the review of SWBNO's water system, Black & Veatch has reached the following conclusions:

- SWBNO has an abundant water supply via the Mississippi River to provide service to existing and future customers.

- SWBNO consistently meets or exceeds state and federal standards for the provision of drinking water. The treatment capacity for the Carrollton WPP and Algiers WPP is sufficient to meet current and projected demands.
- Overall, SWBNO's water purification plants are adequate and include processes and components that are common in the water industry. The water purification plants are in need of infrastructure upgrades or replacements to sustain reliable operation. Most critical are the Carrollton WPP filters and underdrains which are in poor condition.
- The amount of non-revenue water, which is water produced by SWBNO but not sold to customers, is well above what is typical for a similar sized utility. SWBNO is taking action to address the issue through the use of several initiatives, including the use of leak detection technology; the FEMA-funded replacement of the distribution system; the FEMA-funded Water Hammer program; meter replacement; and account validation. These initiatives are common techniques in the water industry for identifying and reducing non-revenue water and should eventually yield improved results over the long term.
- From 2008 through 2014, an outside consultant performed a water audit per AWWA guidelines. The American Water Works Association guidelines recommend that a water audit is developed annually. This annual water audit can provide an effective basis for understanding areas of non-revenue water and tracking progress toward reducing the amount of non-revenue water to more typical levels.
- Over the years, SWBNO has developed a redundant power supply that is available to primarily sustain drainage operations during significant emergencies such as hurricanes. The power plant is also able to provide power to sustain drinking water low service pumping, treatment operations, and high service pumping during events where the local power source is down. These power assets are unique within the water industry and provide a mechanism for SWBNO to sustain critical operations during significant storm events.
- Significant FEMA funds are being dedicated over the coming years to rehabilitate and prepare the power assets to provide reliable power during future storm events.
- SWBNO continues to rebuild the water system to recover from the impact of Hurricane Katrina in 2005. The FEMA-funded hurricane recovery projects will rehabilitate or replace significant pumping assets, as well as a significant portion of the water distribution system.

VI. Sewerage System

A. INTRODUCTION

The sewerage system operated by SWBNO dates back to the late 19th Century when City leaders decided to create a sewerage system for collecting sanitary sewage to alleviate various diseases and improve the overall sanitary health of the City. The current system consists of approximately 1,547 miles of sewers ranging in size from 4-inch to 72-inch in diameter, and are of various type including polyvinyl chloride, steel, vitrified clay, cast iron, ductile iron, and other. There are four major pump stations and 79 smaller, automatically operated pump and lift stations. There are two treatment plants, the East Bank Plant and the West Bank Plant. The permitted capacity of the East Bank Plant is 122 mgd and the permitted capacity of the West Bank Plant is 40 mgd. The sewerage system service areas are shown in Figure 3 on the following page.

The sewage collection and conveyance system, including the pumping and lift stations, are operated and maintained by SWBNO employees. The day to day operation and maintenance of the treatment plants is performed by Veolia. Major capital improvements for the treatment plants are funded by SWBNO.

B. CONSENT DECREE FOR SEWERAGE SYSTEM

SWBNO is party to a consent decree lodged by the USEPA related to compliance issues with the CWA and the CAA. The original consent decree was lodged and agreed to by the parties in 1998. During the implementation of the elements of the original consent decree, Hurricane Katrina struck and prevented the Board from meeting several requirements. As a result, a Modified 2010 Consent Decree was entered into by the parties to continue the Board's progress toward compliance with the CWA and CAA. Due to the ongoing impact caused by Hurricane Katrina a Third Modified Consent Decree was entered into between SWBNO and the USEPA and USDOJ in 2014.

1. Original and Second Modified Consent Decree

Major elements of the original and Second Modified Consent Decree include the following items. It should be noted that many of these items have already been completed by SWBNO.

- CAA Remedial Measures—SWBNO agreed to develop an operation and maintenance plan for operating its fluidized bed incinerator at the East Bank Plant, as well as to submit regular reports documenting its compliance with the approved plan.
- CWA Remedial Measures Pump Stations—SWBNO agreed to operate all pump stations such that if the largest capacity pump goes out of service, additional pumps can be activated to prevent unauthorized sewage discharges.
- CWA Remedial Measures SCADA—SWBNO agreed to install SCADA systems in its pump stations that continuously monitor the performance of the pump stations. The purpose of SCADA monitoring equipment is to allow personnel to more quickly respond to any malfunction of pumps that would lead to an unauthorized sewage discharge.



Figure 3—Overview of the SWBNO Sewerage System

- **CWA Remedial Measures Cross Connections**—SWBNO agreed to eliminate any cross connections that were not identified in the Cross Connection Security plan and inspect all retained cross connections. In addition, SWBNO agreed to not operate the retained cross connections without notifying USEPA.
- **CWA Remedial Measures Preventive Maintenance Program**—SWBNO agreed to develop a preventative maintenance program for its sewage collection system and East Bank plant. The purpose of the program is to document the type and frequency of inspections, cleaning, and maintenance procedures to be conducted.
- **CWA Remedial Measures Sewer Overflow Action Plan**—SWBNO agreed to develop a sewer overflow action plan for the purpose of efficiently responding the incidence of a sewer overflow to minimize the amount of unauthorized discharge.
- **CWA Remedial Measures Tracking and Reporting of Unauthorized Discharges**—SWBNO agreed to establish a tracking program to ensure the all unauthorized discharges are identified and reported to USEPA.
- **CWA Remedial Measures Comprehensive Collection System Remedial Program**—SWBNO agreed to perform comprehensive studies of its collection system basins to determine system needs and develop remedial action plans. Subsequent to approval of the remedial action plans by the USEPA, and due to the impact of Hurricane Katrina, SWBNO agreed to complete Emergency Sanitary Sewer Assessment (ESSA) of the collection systems served by SWBNO. This includes performing inspections of sewer mains to identify and repair blockages that would disrupt sewage flow from SWBNO pump stations. Additionally, SWBNO agreed to implement remedial measures action plans (RMAPs) for each of its nine basins. The schedule for implementing the RMAPs for the MidCity, Ninth Ward, Carrolton, New Orleans East, and South Shore basins was extended. The MidCity, South Shore, and Carrolton basins are to be implemented in 2015, the Ninth Ward basin by 2018, and the New Orleans East basin in 2019.
- The timeline for completing projects in the Ninth Ward basin was extended to March 31, 2018.
- The timeline for completing projects in the New Orleans East basin was extended to October 31, 2019.
- **CWA Remedial Measures Storm Sewer Monitoring Program**—SWBNO agreed to collect samples at its drainage pump stations in the East Bank storm water drainage system to detect any presence of sewage before and after the implementation of the collection system remedial action plans described above.
- **Green Infrastructure**—SWBNO agreed to explore areas for including green infrastructure measures as part of its Comprehensive Collection System Remedial Program. This includes cooperating with USEPA and the other interveners on green infrastructure projects in each of its east bank basins.

In addition to these remedial measures, the Board also agreed to undertake training for SWBNO's employees, conduct outreach and public awareness, and submit regular reports to USEPA documenting its progress toward complying with the terms of the consent decree.

2. Third Modified Consent Decree

The Third Modified Consent Decree is essentially the same as the original and Second Modified Consent Decree, with the following adjustment to the schedule for completing the Remedial Measures Comprehensive Collection System Remedial Program:

- Mid-City Basin—Extended Completion Date from 2015 to July 31, 2023
- South Shore Basin—Extended Completion Date from 2015 to October 31, 2021
- Carrollton Basin—Extended Completion Date from 2015 to October 31, 2025
- Ninth Ward Basin—Completion Date Remains at March 31, 2018
- New Orleans East Basin—Completion Date Remains at October 31, 2019

For each of these basins, SWBNO must report when the 25 percent, 50 percent, and 75 percent completion milestones have been completed. Additionally, SWBNO committed to developing a plan for coordinating green infrastructure into the collection system remedial program. SWBNO also committed to spending \$500,000 per year, averaged over the next five years, toward implementing green infrastructure projects as part of its collection system remedial program. Finally, the work for this Third Modified Consent Decree is to be coordinated with City street repair projects.

C. RELEVANT REGULATORY PERMITS

SWBNO's sewage treatment plants and the collection system are regulated by three primary permits which include:

- NPDES Permits
- MS4 Permit
- Title V Major Source Operating Permits-Clean Air Act (Title V) Permit

1. NPDES Permits

The NPDES permits provide the regulatory guidelines that apply to both the East Bank and West Bank Plants. The primary function of the NPDES permits is to set the effluent limitations for both plants. The East Bank Plant has a second outfall that allows for discharge of treated sewage to the Bayou Bienvenue Wetlands for a wetlands assimilation project. At this time there is no discharge being conveyed to the wetlands assimilation project. Table 8, on the following page, provides a summary of the effluent limitations for both of SWBNO's primary treated sewage outfalls. Monthly Discharge Monitoring Reports (DMR) are submitted on the 15th day of each month to the LDEQ. Historically, this has been done by Veolia; however, Environmental Affairs now reviews, certifies, and submits DRMs to the regulatory agencies using NetDMR. Veolia will still be responsible for providing the DMR information to Environmental Affairs.

In addition to the effluent limits noted above, there are several other requirements identified in the NPDES permits including reporting requirements and procedures for monitoring and record keeping. It should be noted that the following provides a general description of NPDES permit items; the actual permits should be referred to for more specific details and information that is required by SWBNO.

Table 8—Current NPDES Key Effluent Limitations

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATION (EAST BANK PLANT)	DISCHARGE LIMITATION (WEST BANK PLANT)
BOD ₅ (mg/L) Monthly Average	30	30
BOD ₅ (mg/L) Weekly Average	45	45
BOD ₅ (lbs./day) Monthly Average	30,524	10,008
TSS (mg/L) Monthly Average	30	30
TSS (mg/L) Weekly Average	45	45
TSS (lbs./day) Monthly Average	30,524	10,008
Daily pH	6-9	6-9
Fecal Coliform Monthly Average	200 colonies/100 ml	200 colonies/100 ml
Fecal Coliform Weekly Average		400 colonies/100 ml
Fecal Coliform Daily Maximum	400 colonies/100 ml	
Total Residual Chlorine (mg/L)	0.5	1.4
Whole Effluent Toxicity Testing	Report Pass/Fail	Report Pass/Fail
Average Monthly Flow - AMF (mgd)	monitor/report	monitor/report
Average Weekly Flow – AWF (mgd)	monitor/report	monitor/report

mg/L milligrams per liter
 lbs./day pounds per day
 mgd million gallons per day
 ml milliliter
 BOD₅ Biochemical Oxygen Demand (five day)
 TSS Total Suspended Solids

- **Stormwater Discharge**—This section refers to the stormwater management at both the East Bank and West Bank Plants. The permits require the development of a Stormwater Pollution Prevention Plan (SWP3) to assure that plant personnel are appropriately managing stormwater runoff. The SWP3 includes site map, employee training, potential pollutant sources, descriptions of stormwater Best Management Practices (BMPs) used, inspection areas, and washwater requirements (if not handled through the treatment process). Violation of the permit consists of stormwater runoff that has TOC concentration greater than 50 mg/L; Oil and grease concentrations greater than 15 mg/L; and pH levels that are outside the range of 6.0 to 9.0.
- **Municipal Water Pollution Prevention**—This item requires SWBNO to perform an Environmental Audit Report each year during the life of the permit. The audit should generally include information on influent and effluent loadings to each plant; bypasses and overflows of the tributary sewer system and treatment plant; sludge disposition; employee training; condition status; and other new developments at each facility. The audit must be completed under a resolution from the Board, and must be signed by a duly authorized representative.

- **Pretreatment Program**—SWBNO is required to have a pretreatment program in conjunction with requirements of the CWA. The pretreatment program is designed to identify and monitor the discharges related to Significant Industrial Users (SIU) that discharge sewage to the SWBNO system. This item requires SWBNO to establish discharge limits for SIUs, as well as monitor discharges from these customers to determine compliance. SWBNO has to keep track of its monitoring activities, and also track those industrial users that are in noncompliance with the established SWBNO discharge limitations for industrial users. SWBNO must also monitor the influent and effluent to the treatment plants for toxic substances.
- **Monitoring of Toxic Substances**—SWBNO must also monitor and report for many potential toxic substances in its sewage effluent. There are Minimum Quantification Levels (MQLs) for each potential toxic substance. If any of the MQLs are exceeded, SWBNO must initiate action to try and determine the source, as a means of abating the substance from entering the river source that is used by other communities downstream.
- **Whole Effluent Toxicity Guidelines**—The NPDES permits provide a section that outlines the requirements for conducting tests related to determining Whole Effluent Toxicity.
- **Standard Permit Conditions**—There is a section related to standard permit conditions that apply, including penalties for non-compliance; reporting and monitoring requirements; and definitions of significant terms.

The current status of the NPDES permit for the East Bank Plant is that it went into effect on June 1, 2009 and expired on June 1, 2014. SWBNO indicates that it submitted a permit renewal application with LDEQ, and has been notified that its submittal is administratively complete. Until a new permit is issued by LDEQ, SWBNO will continue to operate under the terms of the existing NPDES permit. With respect to the West Bank Plant, the effective date of the existing NPDES permit is June 1, 2014.

2. Title V Air Permit

SWBNO maintains Title V Air permits for its power plant at the Carrollton WPP and the East Bank Plant. The permit for the East Bank Plant is related to the FBI that incinerates sludge from the sewage process. The permit expired on October 1, 2013, and SWBNO had already submitted a renewal application on March 21, 2013. LDEQ has notified SWBNO that the application is administratively complete. SWBNO has received a draft permit from LDEQ and the final permit was issued with an effective date of January 23, 2015. SWBNO indicates that the permit for the East Bank Plant has been able to meet all requirements. There is a new requirement issued by the USEPA for sewage sludge incinerators outlined in 40 CFR 60, subpart Mmmm which establishes new final emissions limits for existing sewage sludge incinerators. SWBNO notes that the change of the mercury emissions limit to 0.037 milligrams per dry standard cubic meter (mg/dscm) will likely put the FBI over the new limit. Testing will also have to be conducted for several other emissions to determine compliance with the new rule.

The permit for the power plant at Carrollton WPP is in effect until January 24, 2017. SWBNO indicates that there have been past compliance issues with respect to meeting reporting requirements for this permit that have resulted in compliance orders from LDEQ. All compliance orders have been resolved and SWBNO has settled all outstanding compliance order.

SWBNO has also registered each of its backup generators located at various facilities with LDEQ. The Environmental Affairs Department has been developing training manuals and conducting training to assure that employees operate equipment in accordance with Title V regulations.

3. Municipal Separate Storm Sewer System Permit

SWBNO is a party to the MS4 permit issued by the LDEQ to regulate stormwater discharges to canals and rivers that are adjacent to Orleans Parish. Other parties include Jefferson Parish, City of New Orleans, Port of New Orleans, Orleans Levee District, and Louisiana Department of Transportation and Development (District 02). The permit covers all areas within Orleans Parish that are served by the separate storm sewer system. The effective date of the existing permit is October 1, 2013 and will expire October 1, 2018.

General items of the MS4 permit to which SWBNO is a party include:

- **Authorized and Unauthorized Discharges**—Generally, authorized discharges occur from wet weather events via approved system discharge points and should not be reasonably expected to result in a water quality violations. Unauthorized discharges are generally related to spills and other instances where non-stormwater discharges enter the separate storm sewer system.
- **Stormwater Pollution Prevention and Management**—The parties are required to establish a stormwater prevention and management program. This includes establishing controls to reduce the amount of pollutants in stormwater related to areas such as roadway, pesticides, areas of new development, and other areas that can contribute to stormwater pollution.
- **Monitoring and Reporting Requirements**—There are no discharge limitations for reporting, however, the parties must monitor for specific pollutants twice annually from a representative sample of stormwater outfalls.

There are also standard permit conditions (including penalties for violations of the permit) and additional guidelines related to monitoring, permit modifications, and definitions for specific terms used throughout the MS4 permit.

The effective date of the current permit is October 1, 2013, and the permit expires on September 30, 2018.

D. OVERALL PERFORMANCE OF SWBNO'S SEWAGE TREATMENT PLANTS

The two sewage treatment plants are operated under a contract with Veolia for the operation and maintenance of all plant components. Major capital improvements are funded by SWBNO. The treatment plants generally remain in compliance; however, there have been several recent permit violations at the East Bank Plant that were reported to LDEQ. These include exceedance of daily max limit for fecal coliforms in January and December of 2014; exceedance of the monthly BOD average limit in February and April of 2014; and the exceedance of the monthly TSS average limit in April 2014. A review of the incident reports provided to SWBNO by Veolia indicates that:

- The cause of the January and December 2014 fecal coliform exceedances were investigated and believed to be a sample collection error on the part of the operator.

Veolia did indicate that samples prior to, and after the sample in question were all in compliance.

- The cause of the April 2014 BOD and TSS exceedance was due to high flows and having several clarifiers down for maintenance. Within 10 days, the clarifiers were repaired and back online.
- The cause of the February 2014 BOD exceedance is believed to be related to fluctuating flows to the plant, combined with maintenance issues at the oxygen facility, and needing an additional reactor in service.

The West Bank Plant has not had any permit violations over the past year.

In general, SWBNO indicates that Veolia's performance with respect to the operation of the treatment plants has been good. Excluding the permit exceedances above, there appear to have been few issues or permit violations.

1. Operation and Maintenance Agreement

On December 9, 2014, SWBNO entered into a new ten-year contract with Veolia to provide operation, maintenance, and management of SWBNO's East Bank and West Bank treatment plants. The scope of services in the agreement contains the following elements:

- Operate, maintain and manage the WWTP's such that they meet compliance with all applicable regulations, laws and permits.
- Staff the WWTP's with sufficient qualified employees to perform managerial, administrative and technical duties.
- Conduct preventive maintenance and repairs on both WWTP's to maximize the service life of the facilities.
- Develop forward looking, ten-year capital plan for non-routine upgrades to the WWTP's.
- Keep an inventory of chemicals, equipment, material, supplies, spare parts and other assets on hand.
- Maintain all plans and reports required by permits, regulations and laws such as Emergency Response Plan, Worker Safety Plan, Hazardous Material Management Plan, etc.

E. EAST BANK SEWAGE TREATMENT PLANT

1. Capacity and Performance

SWBNO's East Bank Plant has a permitted average day capacity of 122 million gallons per day. The maximum day effluent flow from the plant in 2014 was 190 mgd, indicating significant infiltration and inflow in the collection system. Compared with average day effluent flows for 2012, 2013 and 2014 of 93 mgd, 98 mgd and 93 mgd, respectively, the current and near term permitted capacity is appears sufficient. SWBNO should continue to assess the impact of increasing population, combined with the impact of the collection system rehabilitation on the potential future need for increased sewage treatment capacity. The East Bank Plant is the larger of SWBNO's two sewage treatment plants. During wet weather events, operators utilize abandoned primary clarifiers onsite to control

the flow through the secondary treatment process. After the wet weather flow subsides, the diverted flow is then conveyed through the secondary treatment process.

Plant performance is normally well below permit limits. In calendar years 2013 and 2014 effluent concentrations for BOD averaged 21.3 mg/L and 23.2 mg/L compared to a permit monthly average limit of 30 mg/L. The effluent concentrations for TSS averaged 15.5 mg/L and 15.8 mg/L compared to a permit monthly average limit of 30 mg/L.

There are approximately 35 Veolia employees that provide operations and maintenance of the facilities 24 hours per day. A tour of the plant was conducted on June 23, 2015. The Veolia capital projects manager provided an overview of plant operations and provided an update on recent operational and capital improvements.

2. Plant Treatment Components

The plant consists of three influent bar screens that remove larger materials in the sewage such as rags and miscellaneous debris. Mechanical rakes are available to continually remove the debris from the screens and were in operation during the tour. There are six separate grit chambers for removal of grit that has passed through the screens. Grit from the chambers and debris from the screens are collected and eventually conveyed to the landfill. One recent addition to the plant is an odor control system consisting of Hydrogen Peroxide that is added to the influent flow.

From the grit chamber, sewage flows to the aerobic reactors via two channels. There are four reactors with eight mixers per reactor train. High purity oxygen is generated onsite and supplied to the reactors for use in the removal of BOD. There are approximately 35 tons per day of oxygen generated on average. The sewage then flows to secondary clarifiers for the settling of remaining solids. There are seven secondary clarifiers available at the plant. After secondary settling, the sewage is disinfected with a chlorine solution. The solution is generated onsite from chlorine gas that is stored onsite on a 90 ton rail car. After disinfection, the treated sewage is pumped to the Mississippi River via five effluent pumps.

The treatment of sewage is very reliant on electricity to keep the processes functioning properly. The plant is supplied primarily by Entergy via a 60 Hz power feed. In the event of an emergency, the plant has a 4.0 MW generator located above flood level to power the entire plant.

3. Plant Sludge Processing Components

Sludge, which settles in the clarifier, is recycled in the process; this sludge is called Return Activated Sludge (RAS). A portion of the RAS called Waste Activated Sludge (WAS) is sent to sludge processing for disposal. RAS can be siphoned from the aerobic reactors and returned to the two reactor influent channels to keep the optimal level of microbes in the reactors for removing BOD. WAS is collected from the reactors and secondary clarifiers and conveyed to the plant's gravity thickening and belt filter press. After thickening and dewatering, it is either conveyed to an onsite incinerator or trucked to a landfill. Ash from the incinerator is stored onsite until it is collected and also transported to a landfill. During calendar year 2014, Veolia disposed of approximately 7,110 tons of sludge.

4. Plant Site Visit

Black & Veatch conducted a site visit to the East Bank Plant on June 23, 2015, accompanied by the Veolia capital projects manager. Overall, the plant facilities appeared in good condition with appropriate maintenance being conducted. Some items noted during the site visit included:

- Reactors #1 and #4 were out of service for rehabilitation. The mixers on Reactor #1 were removed and the representative noted that the basin is scheduled to be cleaned by the end of 2015. Reactor #4 is scheduled to be rehabilitated in 2016.
- There is no automation for mechanical rake on bar screens; raking must be conducted manually at regular intervals.
- Cyclone grit separators showed corrosion.
- Operator noted that two channels from the grit chambers to the aerobic reactors will need cleaning.
- Return sludge line was corroded and out of service. A temporary, above ground, replacement line is being used to return sludge from the RAS pump stations to the influent channel. A project to install a permanent buried RAS line was awarded in February 2015.
- Operator noted that liquid oxygen tank is nearing the end of its useful life. High purity oxygen system components appeared in good condition.
- Several mechanical mixers on aerobic reactors were out of service due to regular preventative maintenance.
- Effluent pumps appeared in fair condition. The operator noted that there have been issues keeping these pumps operating reliably. The electrical system is to be evaluated and will likely require upgrades to increase the reliability of the effluent pumps.
- Electrical controls and switchgear for the effluent pumps appeared in poor condition. The operator noted that the older electrical equipment presents ongoing maintenance issues.
- A flood protection berm was completed at the plant to minimize future flooding at the plant.

5. Planned Capital Improvements

Veolia generates a list of capital projects that is provided to SWBNO for consideration. SWBNO retains the decision-making and funding authority for projects over \$15,000. Based on discussions with the plant operator during the site visit and a review of the SWBNO capital budget, the following capital improvements are planned for the East Bank plant to be completed over the next five years:

- Rehabilitation of aerobic reactor #1
- Pave access from Florida Ave. to Plant gate
- Rehabilitate OASIS Trains #1 - 4
- Electrical system evaluation and upgrades

- Automation of headworks
- Improvements to RAS line
- Install automated valves on influent lines
- Incinerator and sludge handling improvements
- Replacement of liquid oxygen tank
- Install new sludge handling station for sludge from West Bank Treatment Plant
- Purchase spare pumps for RAS pump station
- Demolition of multiple hearth
- Upgrade electrical switchgear
- SCADA upgrades
- Rehabilitate belt filter press
- Install a new sludge dryer and heat recovery system to replace the multiple hearth incinerator

A review of the CIP indicates that a majority of these projects are included.

F. WEST BANK SEWAGE TREATMENT PLANT

1. Capacity and Performance

SWBNO's West Bank Plant has a permitted average day capacity of 40 mgd. It is the smaller of SWBNO's two sewage treatment plants and generally serves the southern portion of Orleans Parish.

During calendar years 2012, 2013 and 2014, the West Bank Plant's average day treated effluent flows were approximately 9.3 mgd, 10.1 mgd and 9.23 mgd, respectively. The maximum day plant effluent during 2014 was approximately 30 mgd, indicating significant infiltration and inflow into the collection system during storm events. The current capacity is sufficient to meet demand. Plant performance with respect to removal of BOD and TSS is typically well below permit limits. In calendar year 2013 and 2014, effluent concentrations for BOD averaged 8.9 mg/L and 8.68 mg/L compared to the permit monthly average of 30 mg/L. The effluent concentrations for TSS averaged 10.5 mg/L and 10.83 mg/L compared to the permit monthly average of 30 mg/L. SWBNO indicates that the West Bank Plant has not exceeded any of its NPDES permit limits.

Veolia operates and maintains the plant with six employees. Four are focused on operations and two are maintenance employees. There is also a contract employee that is an electrician that spends two days per week at the plant.

2. Plant Treatment Components

The West Bank Plant consists of four influent bar screens with mechanical rake for removing larger debris as the flow enters the plant. Once through the bar screens, the flow enters two aerated grit chambers where larger solids are settled to prevent these from continuing through the process. Flow from the two aerated grit chambers then enters three primary sedimentation basins. This allows for continued settling of finer solids before moving to the secondary treatment process.

From the primary sedimentation basins, the flow moves to a collection basin where pumps distribute flow to two trickling filters. The trickling filters contain a plastic media that is used to facilitate the biological removal of BOD from the sewage. From the trickling filters, flow is distributed to four final sedimentation basins. The final sedimentation basins provide additional settling of suspended solids, and there are two basins for each trickling filter.

After the final settling process, the sewage is disinfected with a chlorine solution (derived from chlorine gas) before moving to the wet well adjacent to the effluent pump station. There are four effluent pumps that convey the treated sewage to the Mississippi River.

The main power source for the West Bank Plant is 60 cycle power provided by Entergy. For emergency power, there is a standby generator onsite and associated diesel fuel storage tank.

3. Plant Sludge Processing Components

Sludge from the treatment process is collected from the primary sedimentation basins, as well as the final sedimentation basins. The sludge is conveyed to a gravity thickening tank where it is stored and thickened. Filtrate from the gravity thickener is sent to the adjacent influent line and returned through the process. Sludge from the gravity thickener is trucked to the East Bank Plant five times a day, although the gravity thickener is capable of storing sludge for several days. Hauling sludge to the East Bank Plant occurs Monday through Friday. Sludge is not hauled on the weekends.

4. Plant Site Visit

Black & Veatch conducted a site visit to the West Bank Plant on June 23, 2015, accompanied by the Veolia plant supervisor. Overall, the plant facilities appeared in good condition with appropriate maintenance being conducted. Some items noted during the site visit include:

- Concrete and pavement adjacent to the bar screens and aerated grit basins showed cracks and settling.
- There are four bar screens. Bar screen #2 is in need of an adjustment. Bar Screen #3 is inoperable at time of visit and will be completed rehabbed in 2015. Bar screens 1, 2 and 4 are operational.
- Grit cyclones for collecting grit from the grit basins showed significant corrosion.
- Two grit pumps were replaced in late 2014.
- West Primary Clarifier will be rehabbed and painted by the end of 2015. A contractor is currently under contract to conduct the work. Effluent well on the back of West Primary Clarifier was recently repaired due to concrete cracking. Lastly, West Primary Clarifier also has a leaking valve during site visit. Central Primary Clarifier will have center well repairs conducted, but time frame not determined as of site visit.
- Main Collection Basin Pumps 4 and 5 had impellers replacements and rehab work completed in 2015. Pumps 1, 2 and 3 impellers will be checked and rehabbed later in 2015 or early 2016. The structural condition of the trickling filters appeared to be good. Minor structural issues with Trickling Filter No. 1 were noted and are getting worse since last site visit in 2014.

- The drive motor for the arms on the trickling filters is currently inoperable and operates based on hydraulics; however, treatment is still acceptable.
- Check valve on effluent pump 2 was replaced. Pump 2 is offline due to an additional inoperable valve. Maintenance is working on removing and repairing the valve in 2015.
- Standby generator is operational. An addition of air filtration system was made to the generator, as well as, a flap placed on the exhaust to prevent rain water from entering the generator.
- SCADA system was down during site visit and has been down for most of 2015. SCADA is currently being reloaded and updated and should be completed by end of 2015.

5. Planned Capital Improvements

Veolia generates a list of capital projects that is provided to SWBNO for consideration. SWBNO retains the decision-making and funding authority for projects over \$5,000. Based on discussions with the plant operator during the site visit and a review of the SWBNO capital budget, the following capital improvements are planned for the West Bank Plant to be completed over the next five years:

- Replacement of grit pumps
- Rehab of main pumps that feed the trickling filters
- Repair projects related to effluent pumps
- Rehab emergency generator and associated switchgear
- Rehab primary sedimentation basins
- Rehab belt filter press and other improvements to solids handling

A review of the CIP indicates that the majority of these projects are included.

G. SEWAGE COLLECTION AND PUMPING

SWBNO's sewage collection and pumping systems are operated and maintained by SWBNO. The following sections provide an overview of these systems.

1. Sewage Collection

The sewage collection system has been a primary focus for SWBNO since the original consent decree for the larger, east bank portion of the system was entered into in the 1990s. Since that time, SWBNO has devoted considerable resources toward the rehabilitation of the sewage collection system and pump stations to reduce the occurrences of sanitary sewer overflows and assure that sewage flows properly to the two treatment plants.

The sewage collection system consists of approximately 1,547 miles of sewer lines ranging in size from 4-inch diameter to 72-inch diameter. The collection system is delineated into 10 basins. Nine of the basins (Lakeview, Uptown, Central Business District, Carrollton, Mid-City, Gentilly, Ninth Ward, New Orleans East, and South Shore) flow to the East Bank Plant; while the Algiers Basin flows to the West Bank Plant. The consent decree requires that each of the nine east bank basins be rehabilitated as part of the Comprehensive Collection System Remedial Program. To date, SWBNO

has completed work that consists of replacement, lining, point repairs, and other measures for four of the basins (Lakeview, Central Business District, Gentilly, and Uptown). The remaining basins are to be completed per the schedules outlined in the consent decree as noted above.

A key objective of the consent decree related to the collection system is the reduction of sanitary sewer overflows. The Table 9 shows the number of unauthorized sanitary sewer overflows for the east bank portion of the system from 2008-2014. This number of SSOs per mile of sewerage system is still significant, although management indicates that much progress has been achieved in reducing these instances since the inception of the consent decree in 1998.

Table 9—Unauthorized Sanitary Sewer Discharges for East Bank Portion of System

CALENDAR YEAR	2008	2009	2010	2011	2012	2013	2014
Unauthorized Discharges	163	214	225	189	184	177	207

To achieve the requirements of the consent decree, SWBNO has several projects anticipated for the coming years including:

- FEMA-funded HMGP projects for collection system point repairs, or the ESSA program. This program is related to finding and fixing issues in the collection system related to the effects of Hurricane Katrina. This program has been ongoing, however, \$6 million is included in the proposed CIP.
- Consent Decree rehabilitation of sewage system basins, including Lower Ninth Ward rehabilitation at approximately \$10.5 million, New Orleans East basin rehabilitation at approximately \$13.4 million, and South Shore basin rehabilitation at approximately \$18.0 million. These projects would be funded by SWBNO.
- Additional consent decree projects for the MidCity and Carrollton basins are also anticipated, as well as routine cleaning and inspections throughout Orleans Parish. These projects would be funded by SWBNO.

These projects that continue to rehabilitate the collection system should continue to reduce the instances of SSOs, as well as the amount of infiltration and inflow that enters the collection system.

2. Sewage Pumping

SWBNO operates and maintains 83 sewage pump stations with 65 serving the east bank collection system and 18 serving the west bank collection system. The majority of pumps related to these stations have been rehabilitated since Hurricane Katrina. There are continued improvements anticipated by SWBNO in the coming years, including:

- FEMA-funded HMGP projects related to relocating underground pump stations above ground for approximately \$4.0 million.
- Internal funds to storm proof Sewage Pump Station A for approximately \$3.0 million.
- Internal funds for miscellaneous repairs to the various pump stations at approximately \$1.0 million annually.

- Internal funds for the relocation and expansion of Sewage Pump Station No. 1 for approximately \$2.2 million.

3. Performance Metrics

As part of its consent decree compliance, SWBNO is required to track and report activities related to several operation and maintenance initiatives for the larger, east bank portion of the sewerage system. A review of SWBNO's 2014 annual report to the USEPA for the consent decree shows the following performance:

- **Sanitary Sewer Line Inspection**—SWBNO is required to inspect at least 9 percent of the east bank sanitary sewer system each year and 100 percent in 8 years. For 2014 SWBNO inspected 942,808 feet or approximately 16 percent of the east bank collection system.
- **Sanitary Sewer Collection System Line Cleaning**—SWBNO is required to clean at least 7 percent of the east bank sanitary sewer system each year and 100 percent in 10 years. For 2014 SWBNO cleaned 1,442,493 feet or approximately 24 percent of the east bank collection system.
- **Sanitary Sewer System Manhole Inspections**—SWBNO is required to inspect at least 25 percent of the east bank sanitary sewer system manholes each year and 100 percent in 3.3 years. For 2014 SWBNO inspected 8,094 manholes or approximately 35 percent of the total east bank collection system manholes.
- **Sanitary Sewer Collection System Repairs**—SWBNO is required to report all repairs made to the east bank collection system. In 2014 SWBNO made 3,487 repairs to the east bank collection system.
- **Sewage Pump Station Preventative Maintenance**—SWBNO is required to complete 90 percent of preventive maintenance work orders related to its sewage pump stations within two weeks of the scheduled date of completion. For 2014 SWBNO completed 4,941 work orders within two weeks of the scheduled date out of a total of 4,942 work orders or approximately 99.98 percent.
- **Air Relief Valve Inspections**—SWBNO is required to inspect the 34 air relief valves on a semi-annual basis. For 2014 SWBNO met this requirement.
- **Force Main Isolation Valve Inspection and Exercise**—SWBNO is required to inspect and exercise 172 force main isolation valves on an annual basis. SWBNO reports meeting this requirement for 2014.
- **Cathodic Protection System Surveys**—SWBNO is required to conduct annual surveys of cathodic protection sites. There are currently 22 sites and SWBNO reports meeting the requirement to survey these sites.

The preventive nature of these checks and inspections provides a proactive approach to maintenance and viewed as a positive outcome of the consent decree.

H. SEWERAGE SYSTEM CONCLUSIONS

Based on the review of SWBNO's sewerage system, Black & Veatch has reached the following conclusions:

- Complying with the consent decree continues to be a major focus for SWBNO. Significant improvements have been made to the system including rehabilitation of sewage pump stations and the implementation of the Comprehensive Collection System Remedial Program. The number of SSOs has been reduced but is still significant, and SWBNO has recently been able to negotiate an extension of its schedule for completing the rehabilitation of east bank basins at varying milestones through 2025. Meeting this schedule appears feasible, but will require diligent coordination between SWBNO and the City to keep sewer rehabilitation and street projects on track.
- The preventive maintenance inspections developed as part of the consent decree provide an effective means for consistently checking and correcting deficiencies in the east bank collection system. Based on a review of 2014 annual report to the USEPA, SWBNO has been complying with these important inspections.
- The sewage treatment plants have historically been compliant with meeting the limits set forth in their respective NPDES permits. There have been several, recent exceedances of the permit limits for the East Bank Plant; however, additional focus by the operator, Veolia, should return the plant to performance that is more in line with its historical performance.
- The sewage treatment plants are comprised of processes and components for treating sewage and handling sludge that are common within the wastewater industry. The treatment capacity of the East Bank Plant is sufficient to meet existing and near term demand. SWBNO should continue to monitor the population growth and the impact of the collection system rehabilitation projects to appropriately plan for any needed future expansions.
- Historically, there were several compliance issues related to meeting the reporting requirements for SWBNO's Title V permit for the power plant at the Carrollton WPP. There were no compliance issues in 2014 and SWBNO does not anticipate future occurrences.
- There is a new emissions rule developed by the USEPA related to sewage sludge incinerators that could result in needed modifications to the FBI located at the East Bank Plant. The new rule includes increased standards for mercury emissions, and it appears that emissions for current operations would exceed this limit. SWBNO is working with its operator, Veolia to design and construct exhaust improvements to the FBI to assure compliance.

VII. Drainage System

Within the Orleans Parish, a number of drainage stations are used to pump rain and surface water out of the City through a network of canal systems and drainage pump stations. These pumps allow SWBNO to dewater the City, particularly during large storms or hurricanes. The drainage pump stations employed are low head high flow pumps which are primarily powered by 25 cycle power from the SWBNO power plant located at the Carrollton WPP and 60 cycle power supplied by the local electrical utility company. The West Bank drainage pump stations use 25 cycle and 60 cycle power. There is a frequency changer available to convert 25 cycle power from SWBNO's power plant to 60 cycle power to power the West Bank drainage pump stations during an emergency. Figure 4 on the following page shows the drainage system and the associated pump stations located throughout the New Orleans area. In general, the drainage system operated by SWBNO consists of the following major assets:

- Approximately 90 miles of open channel canals
- Approximately 90 miles of covered, or below ground canals
- 25 major drainage pumps stations; 23 located on the east bank portion of the system and 2 located on the west bank portion of the system
- 13 smaller underpass pump stations that start automatically as water levels rise during wet weather
- 122 total pumps are located in the 25 major drainage stations

Since Hurricane Katrina in 2005, SWBNO has been undertaking significant improvements to the drainage pump stations, including the rebuilding of drainage pumps, storm proofing of facilities, and installation of backup generators. The following section provides an overview of significant projects anticipated as part of SWBNO's CIP.

A. SELA PROJECTS

The SELA Drainage program is a partnership primarily between SWBNO and USACE to improve the drainage within Orleans Parish since Hurricane Katrina. The program has been funded by Federal government appropriation of approximately \$1.3 billion. Generally, individual projects for this program are funded 65 percent from the Federal government and 35 percent from SWBNO or other local governments, to be paid back over a 30 year period. In terms of project management, SWBNO is generally responsible for project design and public outreach, while the USACE is generally responsible for permitting, as well as the hiring and managing the construction contractors. A review of reports from SWBNO reflects several projects that are ongoing and described below:

- The Florida Avenue Canal, Phases 2-3 and 4 projects consists of widening the existing concrete flume section of the canal from Elysian Fields Avenue to Drainage Pump Station 19. In addition, modifications will be made to the existing drainage near Peoples Avenue and along the south and north sides of the Florida Avenue Canal to aid in getting more flow to this new canal. Both Phases were awarded September 2014 for construction cost of \$119 million and \$157.2 million, respectively.
- The Jefferson Avenue Canal, Phase 1 and 2 projects consists of adding a canal from Constance Street to S. Liberty Street and another canal from S. Liberty Street to S.

- Claiborne Avenue in the Jefferson Avenue neutral ground. Additionally a canal from Nashville Avenue to Jefferson Avenue along Prytania Street will be constructed. Phase 1 was awarded July 2013 for a construction cost of \$55.9 million and Phase 2 was awarded January 2013 for a construction cost of \$46.2 million.
- The Louisiana Avenue Canal project consists of constructing a concrete box canal from Constance St. to S. Claiborne Ave in the Louisiana Avenue neutral ground. The project was awarded July 2014 for a construction cost of \$82.6 million.
 - The Napoleon Avenue, Phase 2 and 3 projects consists of building a larger concrete box canal adjacent to the existing canal. Phase 2 was awarded September 2011 for a construction cost of \$55.1 million and Phase 3 was awarded October 2013 for a construction cost of \$38.1 million.
 - The S. Claiborne Avenue, Phase 1 and 2 projects consists of adding a canal from Lowerline Street to Leonidas Street and a canal from Leonidas Street to Monticello Avenue in the S. Claiborne Avenue neutral ground. Phase 1 was awarded October 2011 for a construction cost of \$27.1 million and Phase 2 was awarded June 2012 for a construction cost of \$27.8 million.
 - Participation in City Department of Public Works street projects where replacement of drainage assets are needed. The CIP includes internal funds of \$4.3 million.



Figure 4—Overview of the SWBNO Drainage System

B. DRAINAGE PUMP STATIONS

As noted above, the drainage pump stations are critical assets for preventing flooding of Orleans Parish during storm events. There are 25 major drainage pump stations with 122 pumps of various sizes. Since Hurricane Katrina, there has been considerable Federal disaster-recovery and hazard mitigation funds expended to rehabilitate the pumps and harden the station structures. During site visit to one of the two major drainage pump stations, the pump generally appeared to be operational and in good condition. There was evidence of completed storm proofing work, including a new roof, windows, doors, as well as new generators to provide backup power. One aspect of the drainage pump stations is that many of the pumps are old, and in-house fabrication of parts must be done when components break.

SWBNO is planning future work related to the drainage pump stations including:

- Normal extensions and replacement for the drainage pumping stations of approximately \$135.2 million. The majority of this (approximately \$120.7 million) is anticipated to be from internal SWBNO funds.

In the coming years, there are several initiatives related to drainage pump stations which will impact the SWBNO's operation of the drainage system. These initiatives include:

- West Closure Complex—The West Closure Complex is a drainage pump station constructed by the USACE. The new station handles flows from three separate systems during storm events, including SWBNO's system. The West Closure Complex is operated and maintained by the SELA Flood Control Authority.
- Permanent Drainage Pump Stations on Lake Pontchartrain—The USACE is also constructing three permanent drainage pump stations located adjacent to Lake Pontchartrain at the 17th Street, Orleans, and London canals. The combined pumping capacity for the three facilities is expected to be approximately 23,000 cubic feet per second, and will allow for more effective pumping of the drainage system to Lake Pontchartrain during storm events. SWBNO is expected to inherit responsibility and associated costs for operating and maintaining these three systems, which would include the need for additional employees and associated O&M expense.

C. DRAINAGE SYSTEM CONCLUSIONS

Based on the review of SWBNO's drainage system, Black & Veatch has reached the following conclusions:

- SWBNO has made significant progress with the rehabilitation of its drainage pump stations with the help of Federal disaster-recovery and hazard mitigation funds. Completed work includes rehabilitation of drainage pumps and motors; storm proofing of stations to protect the pumping assets from flood and wind; and installation of backup generators to ensure operations should loss of power occur. The proposed CIP includes additional, internal funds to continue the normal repair and replacement of drainage pumping assets.
- SWBNO is a participant along with the USACE in the SELA Drainage program. The CIP includes significant funds provided by the Federal government and SWBNO for

constructing and improving canals to facilitate better drainage and flood control in the drainage system. The implementation of these improvements will continue to be a major focus of SWBNO in the coming years.

- Additional pumping stations (Lake Pontchartrain permanent stations) are being constructed by the USACE to improve the drainage of the system. SWBNO will likely assume some or all of responsibility for the three permanent stations on Lake Pontchartrain. These additional responsibilities would require additional O&M expense and employee resources that are yet to be determined.

VIII. Capital Improvement Program

A. OVERVIEW

SWBNO's CIP is managed by the General Superintendent's office and reflects the capital items requested by each of the Departments within SWBNO. SWBNO has developed a relatively new process for developing the CIP budget that includes a prioritization process to rank order projects for each operational sub-unit, i.e., water, sewerage, and drainage. Generally, the prioritization of capital projects falls to a committee consisting of the General Superintendent, Deputy General Superintendent, Chief of Engineering, Chief of Networks, Chief of Operations, and Planning and Budget. Projects are ranked on a scale of 1 to 10, with 10 receiving the highest priority for implementation by SWBNO. The prioritization process using criteria that includes the following:

- General service criteria for SWBNO are weighted to provide a basis for comparing individual projects. The general service criteria includes customer service; regulatory compliance; system reliability; system repair/replacement; operational flexibility; system growth; and several other general service criteria. Criteria related to regulatory compliance and system repair/replacement would generally receive greater weighting compared to the criteria for system growth.
- Individual projects are assessed and ranked against each of the general service criteria to derive a weighted ranking for each project.
- Projects that are already underway, or that have designated funds from other sources, e.g., FEMA funds, typically receive the highest ranking.

The timing and cost included in the CIP are developed by managers using their experience or other information as known to provide a budget estimate for the CIP. The costs do not include any inflation for projects identified in future years. Many of the projects are yet to be designed, at which time more detailed design will likely result in changes to the CIP amounts prior to project implementation.

From a timing standpoint, individual or specific projects are noted in the year for which SWBNO anticipates initiating the project. For ongoing capital expenditures, e.g., annual renewal and replacement, the CIP shows annual amounts.

As mentioned in Section III of this Report, SWBNO anticipates undertaking more projects to continue improving the water, sewerage, and drainage systems. As such, SWBNO will need additional resources and focus on its processes to keep the pipeline of projects moving forward. SWBNO is taking steps to focus on getting projects ready for implementation, and will shortly begin seeking qualifications from engineering firms that will lead the design of projects based on their specific qualifications and focus areas. Engineers within SWBNO will provide overall program management with respect to the design and schedule of project implementation. Another focus to be sought by SWBNO from the aforementioned engineering firms is a focus on developing project scheduling and cash flows to track the implementation of the CIP. This will be an important process component for managing personnel and financial resources as the implementation of the CIP moves forward.

Another important component with respect to implementing the CIP is the purchasing process. As indicated in Section III, obtaining approval to get a capital project started can take 6 to 8 months. SWBNO will have to manage significantly more projects through this process to keep the project pipeline moving.

B. FISCAL YEARS 2015-2020 CAPITAL IMPROVEMENT PROGRAM

A summary of the CIP for the years 2015 through 2020 is shown below in Table 10.

Table 10—Capital Improvement Program (Fiscal Years 2015-2020)

	FUNDED FROM OTHER SOURCES	INTERNAL FUNDS	UNFUNDED	TOTAL
Water System	\$232,489,000	\$312,874,000	\$28,277,000	\$573,640,000
Sewerage System	\$69,995,000	\$314,903,000	\$15,290,000	\$400,188,000
Drainage System	\$354,728,000	\$13,464,000	\$315,581,000	\$683,773,000
Total	\$657,212,000	\$641,241,000	\$359,148,000	\$1,657,601,000

Note:

1. Uninflated costs derived from SWBNO Capital Budget.

The six-year CIP for the years 2015 through 2020 is comprised of projects to improve the water, sewerage, and drainage systems. Tables 11, 12, and 13 on the following pages provide a summary of the proposed projects anticipated by SWBNO. The majority of projects are focused on rehabilitation, replacement and upgrades, as well as Federally-funded disaster-recovery and hazard mitigation projects.

To reflect the difference in funding sources, each Table is broken out into two segments. The first segment reflects projects to be funded by other sources. These projects mainly consist of FEMA and USACE sources for disaster-recovery and hazard mitigation. The second segment of the Tables reflects the projects to be funded from internal SWBNO funds which include bond proceeds and self-generated funds.

1. Water System

Table 11—Water Capital Improvement Program

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
FEMA & OTHER FUNDING SOURCES							
175 Water Hurricane Recovery Bonds	69,717	20,000	20,000	20,000	20,000	20,000	169,717
214 Normal Extensions & Replacements	2,070	2,070	2,070	2,070	2,070	2,070	12,420
676 Modifications to Power Generating System HMGP	38,858	5,524	5,324	-	-	-	49,706
807 Improvements to Central Yard & St Joseph St	646	-	-	-	-	-	646
TOTAL WATER SYSTEM - FEMA & OTHER SOURCES	\$111,291	\$27,594	\$27,394	\$22,070	\$22,070	\$22,070	\$232,489
INTERNAL CAPITAL							
110 Normal Extensions & Replacements	\$14,569	\$24,520	\$24,720	\$18,520	\$12,420	\$13,970	\$108,719
112 Modifications to Oak St Raw Water Intake Station	1,200	5,500	5,000	-	-	-	11,700
122 Sycamore and Claiborne Filter Rehabilitation	1,490	3,000	0	30,000	-	-	34,490
135 Improvements to Chemical System	220	1,300	3,000	-	-	-	4,520

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
156 Advanced Water Treatment (Carr.)	6,815	200	20,120	120	120	560	27,935
157 Advanced Water Treatment (Algiers)	1,940	3,250	175	2,750	-	-	8,115
159 Water Plant Security Improvements	-	2,000	-	2,000	-	-	4,000
160 SELA Water Relocation Costs	843	643	320	-	-	-	1,806
214 Normal Extensions & Replacement	1,330	1,350	1,350	1,375	1,375	1,400	8,180
216 Water System Replacement Program	4,000	2,000	2,000	2,000	2,000	2,000	14,000
239 Mains D P W Contracts	5,200	3,200	3,200	3,200	3,200	3,200	21,200
492 – Donner Canal Improvements	-	17	578	2,145	-	-	2,740
600 Water Share of Power Projects	2,483	352	928	280	1,590	3,490	9,123
701 Water Reserve for Emergencies	1,500	1,500	1,500	1,500	1,500	1,500	9,000

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
800 Water Share - General Budget Items	12,396	8,190	7,163	6,669	6,492	6,436	47,346
TOTAL WATER SYSTEM - INTERNAL CAPITAL¹	\$53,986	\$57,022	\$70,054	\$70,559	\$28,697	\$32,556	\$312,874
TOTAL WATER DEPARTMENT COMBINED	\$165,277	\$84,616	\$97,448	\$92,629	\$50,767	\$54,626	\$545,363

SWBNO has budgeted approximately \$545 million for its water system capital improvement projects for the six year period between fiscal years 2015 and 2020. Of the \$545 million total, \$313 million will be funded through internal capital funds and \$233 through a combination of other sources, including FEMA and USACE funds. The projects included for SWBNO's water system are summarized in Table 11 and include water plant security improvements, FEMA-funded hurricane recovery bond projects (e.g., Water Hammer Project and Waterline Replacement), normal extension and replacement, water intake modifications, filter rehabilitation, chemical system improvements, water treatment plan improvements, and main extensions among others. Some of the key project spending includes:

- Water Point repairs to be funded internally by SWBNO, including replacement of water mains damaged by hurricane Katrina. The total cost of the project is \$30 million for the FY 2015 through FY 2020 period (project # 110-51).
- Citywide AMI installation, for a total cost of \$20 million (project # 110-41). In addition to the \$20 million budgeted for AMI equipment installation, a total of \$10 million was budgeted between FY 2015 and FY 2020 for the replacement of water meters (project # 823).
- Sycamore Filter Modification, rehabilitation of filters 1-28 at the Sycamore Filter Gallery. Filter media replacement, underdrain inspection and maintenance, replacement of valve, actuator, meter and loss of head instrument, for a total project cost of \$33 million (project # 122-3).

¹ Approximately \$28,277,000 of the total Water System Internal Capital has been identified by SWBNO as being unfunded.

- Improvements to the Carrollton WPP, including a new sludge line, sedimentation study, and improvements to the G&L sedimentation basins, for a total project cost of \$27.94 million (projects # 156-1 to 156-9).
- The Water Hammer and Waterline Replacement projects are part of the FEMA-Funded Water Line Replacement Program (WLRP). WLRP is intended to restore the City's water distribution system and is part of a larger City-wide, multi-year infrastructure repair/recovery effort. The total cost of the project is \$49 million for the FY 2015 through FY 2020 period (project # 175-11).
- Participation in DPW's Roadwork initiative results in a total project cost of \$21.2 million for the FY 2015 through FY 2020 planning period (project # 239).
- Included in the General Budget Items for the water system are improvements to SWBNO's information systems that were mentioned earlier in this Report. This includes \$750,000 for CAM, \$1,333,000 for the human resources/payroll system, \$1,167,000 for the financial system, and \$1,600,000 for the work order management system.

2. Sewerage System

Table 12—Sewerage Capital Improvement Program

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
FEMA & OTHER FUNDING SOURCES							
318 Rehabilitation Gravity Sewer System	\$1,035	\$1,035	\$1,035	\$1,035	\$1,035	\$1,035	\$6,210
368 Wetland Assimilation	8,400	200	-	-	-	-	8,600
375 Sewerage Hurricane Recovery Bonds	15,610	5,000	5,000	7,000	-	-	32,610
676 Modifications to Power Generating System HMGP	17,143	2,437	2,349	-	-	-	21,929
807 Improvements to Central Yard & St Joseph St	646	-	-	-	-	-	646
TOTAL SEWERAGE SYSTEM - FEMA & OTHER SOURCES	\$42,834	\$8,672	\$8,384	\$8,035	\$1,035	\$1,035	\$69,995
INTERNAL CAPITAL							
313 Ext & Replace - Sewer Force Mains EPA Consent Decree	\$5,000	\$1,000	\$10,700	\$2,000	\$10,700	\$1,000	\$30,400
317 Ext & Replace - Gravity Mains EPA Consent Decree	1,817	19,969	7,086	16,893	13,754	39,115	98,634
318 Rehabilitation Gravity Sewer System	6,400	4,000	5,400	4,000	7,400	4,000	31,200

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
319 Extension and Replacements - Sanitary Sewer Mains Algiers	-	-	500	-	-	-	500
326 Ext & Rep. to Pumping Stations EPA Consent Decree	3,934	4,760	5,550	2,500	5,800	1,650	24,194
339 Mains In D P W Contracts EPA Consent Decree	7,800	6,300	6,300	6,300	6,300	6,300	39,300
348 Extension and Replacement - WWTP	5,860	4,805	4,495	3,925	3,655	350	23,090
360 SELA Relocation Costs	1,043	643	337	578	1,945	-	4,546
375 Sewerage Hurricane Recovery Bonds	2,000						2,000
381 Modification & Extension of WBSTP to 20/50 MGD	1,270	355	4,170	245	-	-	6,040
600 Sewer Share of Power Projects	848	46	5,594	40	170	495	7,193
702 Sewer Reserve for Emergencies	700	700	700	700	700	700	4,200
800 Sewer Share of General Budget Items	14,910	7,415	6,385	6,006	5,813	5,777	46,306

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
TOTAL SEWERAGE SYSTEM - INTERNAL CAPITAL ²	\$51,582	\$49,993	\$54,517	\$43,187	\$56,237	\$59,387	\$314,903
TOTAL SEWER DEPARTMENT COMBINED	\$94,416	\$58,665	\$62,901	\$51,222	\$57,272	\$60,422	\$384,898

SWBNO's sewerage system budget is approximately \$385 million for the fiscal years 2015 through 2020. Out of the \$385 million, \$315 million will be funded through internal capital funds and \$70 through a combination of other sources, including FEMA funds. The projects included for SWBNO's sewerage system are summarized in Table 12, and include rehabilitation of the gravity sewer system, extension and replacement of sewer force mains and gravity mains, extensions and replacements of pump stations and mains work in conjunction with the USEPA Consent Decree, and normal extensions and replacements to the sewage treatment plants among others. Some of the key project spending includes:

- Rehabilitation of the gravity sewer system, including restoration of gravity sewer mains by point repairs and Cured in Place Pipe (CIPP) lining at sites throughout Orleans parish. The budgeted spending is between \$2 and \$4 million per year, with a total project cost of \$15.2 million for the FY 2015 through FY 2020 planning period (project # 318-2).
- Rehabilitation of the gravity sewer system, including manhole to manhole sanitary sewer system replacement at various locations throughout Orleans Parish. The budgeted spending from internal funds is between \$2 and \$3.4 million per year, with a total project cost of \$17 million for the FY 2015 through FY 2020 planning period (project # 318-3).
- Participation in DPW's Roadwork initiative results in a total project cost of \$33.3 million for the FY 2015 through FY 2020 planning period (project # 339).
- Included in the General Budget Items for the water system are improvements to SWBNO's information systems that were mentioned earlier in this Report. This includes \$750,000 for CAM, \$1,333,000 for the human resources/payroll system, \$1,167,000 for the financial system, and \$800,000 for the work order management system.

² Approximately \$15,290,000 of the total Sewerage System Internal Capital has been identified by SWBNO as being unfunded.

3. Drainage System

Table 13—Drainage Capital Improvement Program

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
	FEMA & OTHER FUNDING SOURCES						
418 Normal Extensions & Replacements	\$230	\$230	\$2300	\$2300	\$2300	\$230	\$1,380
453 Improvements to Metairie Relief Canal (S&WB 76% Part.)	\$5,992	-	15,000	100	-		21,092
472 Tchoupitoulas Corridor Drainage	-	-	-	1,850	-		1,850
483 Airline & Monticello Canal Improvements	50	948	30,000	500	-		31,498
492 Donner Canal Improvements (SELA)	-	-	-	82,500			82,500
496 General De Gaulle Canal (SELA)	-	-	52,500	52,500			105,000
511 Normal Extensions & Replacements - Stations	1,013	13,457	-	-	-		14,470
535 DPS # 6 Improvements	-	-	160	320	320		800
575 Hurricane Recovery Bonds	6,600		-	-	-		6,600
613 Modifications to Power Generating System	5,330	-	-	-	-		5,330

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
676 Modifications to Power Generating System HMGP	74,692	571	8,299	-	-	-	83,562
807 Improvements to Central Yard & St Joseph St	646	-	-	-	-	-	646
TOTAL DRAINAGE SYSTEM - FEMA & OTHER SOURCES	\$94,553	\$15,206	\$106,189	\$138,000	\$550	\$230	\$354,728
INTERNAL CAPITAL							
466 Louisiana Avenue Canal (SELA)	600	600	600	-	-	-	1,800
478 So. Claiborne-Lowerline To Monticello St. (SELA)	220	220	-	-	-	-	440
486 Napoleon Avenue Canal Improvements (SELA)	450	300	-	-	-	-	750
497 Florida Avenue Canal - DPS # 19 to Peoples (SELA)	950	300	-	-	-	-	1,250
498 Dwyer Intake Canal (St. Charles Canal to Dwyer DPS) (SELA)	50	-	-	-	-	-	50
499 Jefferson Avenue Canal (SELA)	910	910	510	-	-	-	2,330
511 Normal Extensions & Replacements - Stations	2,500	550	550	600	600	650	5,450

CAPITAL SPENDING (IN \$000)	2015	2016	2017	2018	2019	2020	TOTAL SIX-YEAR PROGRAM
800 Drainage Share of General Budget Items	814	140	122	88	140	90	1,394
TOTAL DRAINAGE SYSTEM - INTERNAL CAPITAL³	\$6,494	\$3,020	\$1,782	\$688	\$740	\$740	\$13,464
TOTAL DRAINAGE DEPARTMENT COMBINED	\$101,047	\$18,226	\$107,971	\$138,688	\$1,290	\$970	\$368,192

SWBNO has budgeted approximately \$368 million for drainage system capital improvements for the fiscal years 2015 through 2020. Out of the \$368 million, approximately \$13 million will be funded through internal capital funds, and approximately \$355 million through a combination of other sources, including FEMA funds. The projects included for SWBNO's drainage system are summarized in Table 13, and include improvements to several canals, normal extensions and replacements, and pump station improvements among others. In addition to the drainage projects noted in Section VIII, some of the other key project spending includes:

- Participation in DPW's Roadwork initiative results in a total project cost of \$25.8 million for the FY 2015 through FY 2020 planning period (project # 439).
- Included in the CIP for the drainage system is a portion of the FEMA-funded improvements for the power plant noted in Section III. The drainage system portion is approximately \$83.6 million to be funded by FEMA.
- Included in the General Budget Items for the water system are improvements to SWBNO's information systems that were mentioned earlier in this Report. This includes \$1,167,000 for the human resources/payroll system, \$1,333,000 for the financial system, and \$1,600,000 for the work order management system.

³ Approximately \$315,581,000 of the total Drainage System Internal Capital has been identified by SWBNO as being unfunded.

C. CONCLUSIONS

Based on the review of SWBNO's water, sewerage, and drainage systems and associated reports and documents, Black & Veatch has reached the following conclusions:

- The CIP developed by SWBNO appropriately addresses major system deficiencies and initiatives.
- About 40 percent of the total CIP is projected to be funded from other sources, including FEMA and USACE disaster-recovery and hazard mitigation funds. The majority of these projects are focused on rebuilding the water, sewerage, and drainage systems, as well as preparing SWBNO to sustain operations during future storm events.
- SWBNO is developing its processes for monitoring and re-evaluating a prioritized CIP on an annual basis; as well as implementing a significant number of projects over the coming years. Adjustments to the costs and timing of CIP projects are expected once SWBNO initiates more detailed design. The prioritization component of SWBNO's CIP development process provides a logical basis for managing the implementation of the CIP.
- The CIP will result in a more aggressive schedule for completing capital projects. SWBNO is qualified to manage the implementation of the CIP, and is planning to retain additional, outside engineering support to complete these projects. Increased focus by SWBNO on program management, purchasing, and project approval processes will be needed to prevent significant delays in the completion of the CIP.



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: September 25, 2015

From: Dexter Joseph, Planning and Budget Director

To: Board of Directors

Re: Authorization to enter into agreement with Black & Veatch to perform the 2015 Report on Operations.

The staff is asking for your authorization to enter into a contract with Black & Veatch Consultants (B&V) that is for one year with four one-year renewal options to perform the Report on Operations for 2015. Black & Veatch is a global engineering, consulting and construction company specializing in infrastructure development and water and wastewater systems.

B&V plans to utilize the services of Bruno & Tervalon Certified, Public Accountants to assist in the financial section of the report and Julien Engineering & Consultants Services to assist in the evaluation of the Board's facilities. They both are certified participants in the Board's Economically Disadvantage Business Program and will be paid approximately 47% of their proposed fee of \$118,000 or approximately \$54,950.

Black & Veatch is in the final stages of completing the 2014 Report on Operations and have satisfactorily completed the Report on Operations for 2013, which was adopted by the Board on November 19, 2014.

Staff advertised a Request for Proposal (RFP) for the 2015 Report on Operations and it was received August 28, 2015. The bid opening was on the date received at 11:00am.

An evaluation team of 5 employees was selected to analyze and score the proposal based on the evaluation team's respect for the importance of this report to our agency and based on their years of experience in their perspective areas.

The team was given seven criteria to base their scores on. Please find the analysis of the criteria used to score the RFP below:



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

1. Company's experience in operations project areas and reviews for bond covenants	25%
2. Fees and cost for proposed service	10%
3. Economic Disadvantage Business Participation	15%
4. Company size and capability of completing the work on time	15%
5. Quantity and quality of previous work with S&WB	20%
6. Work plan and schedule	10%
7. Location of firm	<u>5%</u>
Total	100%

There were eight interested parties in the advertisement of the RFP, but only one firm attended the Mandatory Pre-Bid Conference, on August 10, 2015. Per the Board's Policy that one attendant, B&V, was the only firm qualified to submit a proposal.

There was only one area that Black & Veatch scored low in which was:

- Criterion # 7 Location of firm, the Firms home office is in Overland Park, Ks.

With the exception of the above-mentioned area the evaluation team gave B & V's proposal a composite score of 93.2% out of a 100%.

With the above synopsis of how and why Black and Veatch was chosen to perform the 2015 Report on Operations and because we are satisfied with their previous performances, we are requesting your approval to enter into contract with Black and Veatch Engineering.

cc: Cedric S. Grant, Executive Director
Robert Miller, Deputy Director
Nolan Lambert, Chief Counsel
Joseph Becker, General Superintendent
Willie Mingo, Purchasing Agent
Theresa Terrell

**AUTHORIZATION TO ENTER INTO AN AGREEMENT WITH BLACK & VEATCH
CONSULTANTS FOR PREPARATION OF THE REPORT ON OPERATIONS FOR 2015**

WHEREAS, Black & Veatch is in the process of finalizing the Report on Operations for 2014; and

WHEREAS, The budget for the 2015 Report on Operations is \$118,000; and

WHEREAS, Black & Veatch has submitted a proposal for preparation of the Report on Operations for 2015 and with a proposed maximum fee of \$116,000; and

WHEREAS, the contract is for one year with four one year renewal; and

WHEREAS, Black & Veatch plans to utilize the services of Bruno & Tervalon, an Economically Disadvantaged Business, to assist in the proposed study at a minimum of approximately 24% of the work effort equal to \$28,000 of project billings; and

WHEREAS, Black & Veatch also plans to utilize the services of Julien Engineering & Consulting Services, an Economically Disadvantaged Business, to assist in the proposed study at a minimum of approximately 23% of the work effort equal to \$26,950 of project billings;

NOW THEREFORE BE IT RESOLVED, by the Sewerage and Water Board of New Orleans that the President or President Pro Tem is hereby authorized to enter into an agreement with Black & Veatch for Preparation of the Report on Operations for 2015.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of the resolution adopted at a Regularly Monthly Meeting of said Board, duly called and held, according to law on October 21, 2015.

Cedric S. Grant
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21ST CENTURY"

Sewerage & Water Board OF NEW ORLEANS

MITCHELL J. LANDRIEU, President
WM. RAYMOND MANNING, President Pro-Tem

625 ST. JOSEPH STREET
NEW ORLEANS, LA 70165 • 504-529-2837 OR 52W-ATER
www.swbno.org

October 19, 2015

Finance and Administration Committee
Sewerage and Water Board of New Orleans
New Orleans, Louisiana

Dear Directors:

Subject: Biometric Screening and Disease Management

Summary. Sewerage and Water Board is the plan sponsor of a self-funded group health plan and is facing certain challenges regarding employee health:

- A significant number of Board employees likely have undiagnosed health conditions about which they are unaware and may become catastrophic by the time that the employee becomes aware.
- A significant number of Board employees likely have been diagnosed with health conditions but are not complying with their doctors' instructions and may incur catastrophic health consequences.
- Both of the above issues are accompanied by high costs that could be avoided if employees were effectively incentivized to become aware of their health conditions and to become fully compliant with their doctors' instructions.

In an effort to control costs while improving the health of the employees and retirees, management recommends implementation of Disease Management and Biometric Screening.

Background. The objective of this initiative is to identify and help employees and retirees manage certain chronic health conditions, such as diabetes, coronary artery disease, congestive heart failure, and hypertension. Undiagnosed health conditions are the leading drivers of increasing health care costs and deteriorating health for the individuals. Nationally, over fifty percent of the people with diabetes, high cholesterol, or anemia are unaware of their health conditions.

Biometric screening can be provided a no cost to the employees and retirees. The test results will provide a comprehensive health profile to the individual and will be available to the medical professional of their choice. Lab results for each individual will be loaded into a member profile. This will augment existing patient information from medical records that will also be loaded into member profiles.

Individuals with abnormal lab results, usually an indicator of a chronic condition, will be referred to Disease Management. Health coaches will reach out to members offering education, counseling and guidance. Assistance with scheduling necessary medical appointments will also be offered.

Anticipated Additional Expenses. The Sewerage and Water Board Health Plan will cover all out-of-pocket expenses related to the management of certain chronic conditions; such as doctor visits, lab work, prescriptions and medical supplies. The Biometric Screening Program is voluntary. However, a premium incentive through level healthcare payroll deductions can be offered to increase participation in the program. Payroll deductions will be increased for those members not participating.

The anticipated annual cost for Disease Management is \$102,600 based upon an estimated 1,900 total contracts at \$4.50 per month per contract. The initial cost for Biometric Screening could reach \$370,500 based on an estimated 1,900 participants at \$195 per screening; however, a significant portion of that cost will either not be incurred or will be reimbursed to the Health Plan through increased payroll contributions paid by those employees and retirees who choose not to participate.

Staff will monitor these anticipated additional expenses as well as cost savings through lower health plan costs.

Recommendation. Staff recommends adoption of the attached draft resolution to implement Biometric Screening and Disease Management.



Robert K. Miller
Deputy Director

R-199-2015

Biometric Screening and Disease Management

WHEREAS, Sewerage and Water Board of New Orleans currently provides health insurance coverage for its Employees and Retirees; and

WHEREAS, Sewerage and Water Board desires to add a program of biometric screening and disease management for employees, retirees, and their spouses;

NOW THEREFORE, BE IT FURTHER RESOLVED, that the Executive Director is authorized to add these capabilities to the Sewerage and Water Board health insurance coverage at an anticipated annual cost for Disease Management of \$102,600 and Biometric Screening at an estimated annual cost \$370,500.

I, Cedric S. Grant, Executive Director, of the Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of a resolution adopted at the Regular Monthly Meeting of said Board, duly called and held, according to law, on Wednesday, October 21, 2015.

**CEDRIC S. GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

Sewerage and Water Board of New Orleans

Summary of Financial Results

Through August 31, 2015

Prior Year Variances

Revenues
Operating Expenses
Non-Operating Revenues and Expenses
Income before Capital Contributions

	Water	Sewer	Drainage
Revenues	5,087,557	6,210,548	2,775,596
Operating Expenses	3,593,935	4,920,516	3,500,446
Non-Operating Revenues and Expenses	1,249,233	1,376,316	2,866,384
Income before Capital Contributions	2,742,855	2,666,348	2,141,534

Budget Variances

Revenues
Operating Expenses
Non-Operating Revenues and Expenses
Income before Capital Contributions

	Water	Sewer	Drainage
Revenues	(277,127)	104,467	3,354,382
Operating Expenses	(3,747,958)	(2,819,576)	(8,779,346)
Non-Operating Revenues and Expenses	349,127	1,743,613	1,654,308
Income before Capital Contributions	3,819,958	4,667,656	13,788,036

Days of Cash

	Water	Sewer	Drainage
Days of Cash	167.7	202.9	428.2

Projected Debt Service Coverage Times

	Water	Sewer	Drainage
Projected Debt Service Coverage Times	3.28	3.04	Not Applicable



SEWERAGE AND WATER BOARD OF NEW ORLEANS

October 19, 2015

Finance Committee
Sewerage and Water Board of New Orleans
New Orleans, Louisiana

Re: Financial Results through August 2015

Attached are the *Statement of Net Position and the Statement of Revenues, Expenses, and Changes in Net Position* with budget and prior year comparisons for the water, sewer, drainage and total systems through August 2015. The *Statement of Cash Flows, Variance Indicators for Financial Results through August 2015*, and the Number of Open Accounts and Amount of Billed Consumption are also attached.

Operating Revenues:

Water System Fund (pages 7 and 8, line 5) for August of \$7,381,641 is \$476,413 or 6.9% more than budgeted and \$367,420 or 5.2% more than August 2014. August YTD operating revenues of \$53,785,642 is \$277,127 or 0.5% less than budgeted and \$5,087,557 or 10.4% more than August YTD 2014. MTD and YTD budget variances are due to rate increase implemented January 1.

Sewer System Fund (pages 13 and 14, line 5) for August of \$8,608,948 is \$487,282 or 6.0% more than budgeted and \$591,532 or 7.4% more than August 2014. August YTD operating revenues of \$63,637,963 is \$104,467 or 0.2% more than budgeted and \$6,210,548 or 10.8% more than August YTD 2014. MTD and YTD budget variances are due to rate increase implemented January 1.

Drainage System Fund (pages 19 and 20, line 5) for August of \$3,079,899 is \$3,079,899 or 100.0% more than budgeted and \$3,077,672 or 138198.1% more than for August 2014. August YTD operating revenues of \$3,354,382 is \$3,354,382 or 100.0% more than budgeted and \$2,775,596 or 479.6% more than August YTD 2014. MTD and YTD budget variances are due to proceeds from settlement of litigation.

Total System Funds (pages 1 and 2, line 5) for August of \$19,070,488 are \$4,043,594 or 26.9% more than budgeted and \$4,036,624 or 26.9% more than August 2014. August YTD operating revenues of \$120,777,987 is \$3,181,722 or 2.7% more than budgeted and \$14,073,701 or 13.2% more than August YTD 2014.

Operating Expenses:

Water System Fund (pages 7 and 8, line 18) for August of \$7,461,203 is \$355,654 or 4.5% less than budgeted and \$1,310,397 or 21.3% more than August 2014. August YTD operating expenses of \$57,304,058 is \$3,747,958 or 6.1% less than budgeted and \$3,593,935 or 6.7% more than August YTD 2014. MTD and YTD budget variances are due to allocation of a portion of overhead from expense to capital.

Sewer System Fund (pages 13 and 14, line 18) for August of \$5,622,427 is \$459,866 or 7.6% less than budgeted and \$1,571,634 or 38.8% more than August 2014. August YTD operating expenses of \$44,947,647 is \$2,819,576 or 5.9% less than budgeted and \$4,920,516 or 12.3% more than August YTD 2014. MTD and YTD budget variances are due to allocation of a portion of overhead from expense to capital.

Drainage System Fund (pages 19 and 20, line 18) for August of \$3,748,682 is \$1,121,757 or 23.0% less than budgeted and \$142,335 or 3.9% more than August 2014. August YTD operating expenses



SEWERAGE AND WATER BOARD OF NEW ORLEANS

of \$32,383,549 is \$8,779,346 or 21.3% less than budgeted and \$3,500,446 or 12.1% more than August YTD 2014. MTD and YTD budget variances are due to allocation of a portion of overhead from expense to capital.

Total System Funds (pages 1 and 2, line 18) for August of \$16,832,312 are \$1,937,278 or 10.3% less than budgeted and \$3,024,366 or 21.9% more than August 2014. August YTD operating expenses of \$134,635,254 is \$12,014,897 or 9.8% less than budgeted and \$12,014,897 is 9.8% more than August YTD 2014.

Net Non-Operating Revenues:

Water System Fund (pages 7 and 8, line 28) for August of \$38,969 is \$27,978 or 254.5% more than budgeted and \$1,076,014 or 103.8% more than August 2014. August YTD net non-operating revenues of \$437,056 are \$349,127 or 397.1% more than budgeted and \$1,249,233 or 153.8% more than August YTD 2014.

Sewer System Fund (pages 13 and 14, line 28) for August of \$10,586 is \$189,471 or 105.9% more than budgeted and \$1,354,897 or 100.8% more than August 2014. August YTD net non-operating revenues of \$312,532 are \$1,743,613 or 121.8% more than budgeted and \$1,376,316 or 129.4% more than August YTD 2014.

Drainage System Fund (pages 19 and 20, line 28) for August of \$617,725 is \$580,513 or 1560.0% more than budgeted and \$30,285 or 4.7% less August 2014. August YTD net non-operating revenues of \$49,174,360 are \$1,654,308 or 3.5% more than budgeted and \$2,866,384 are 6.2% more than August YTD 2014.

Total System Funds (pages 1 and 2, line 28) for August of \$667,280 is \$797,962 or 610.6% more than budgeted and \$2,400,626 or 138.5% more than August 2014. August YTD net non-operating revenues of \$49,923,948 are \$3,747,048 or 8.1% more than budgeted and \$5,491,933 or 12.4% more than August YTD 2014.

Income Before Contributions in Aid of Construction:

Water System Fund (pages 7 and 8, line 29) for August of -\$40,593 is \$860,045 or 95.5% more than budgeted and \$133,037 or 76.6% more than August 2014. August YTD income before capital contributions of -\$3,081,360 is \$3,819,958 or 55.4% more than budgeted and \$2,742,855 or 47.1% more than August YTD 2014.

Sewer System Fund (pages 13 and 14, line 29) for August of \$2,997,107 is \$1,136,620 or 61.1% more than budgeted and \$374,795 or 14.3% more than August 2014. August YTD income before capital contributions of \$19,002,848 is \$4,667,656 or 32.6% more than budgeted and \$2,666,348 or 16.3% more than August YTD 2014.

Drainage System Fund (pages 19 and 20, line 29) for August of -\$51,058 is \$4,782,169 or 98.9% more than budgeted and \$2,905,052 or 98.3% more than August 2014. August YTD income before capital contributions of \$20,145,193 is \$13,788,037 or 216.9% more than budgeted and \$2,141,534 or 11.9% more than August YTD 2014.

Total System Funds (pages 1 and 2, line 29) for August of \$2,905,456 is \$6,778,834 or 175.0% more than budgeted and \$3,412,884 or 672.6% more than August 2014. August YTD income before capital contributions of \$36,066,681 is \$22,275,651 or 161.5% more than budgeted and \$7,550,737 or 26.5% more than August YTD 2014.

The balances of funds from the Series 2014 bond proceeds available for capital construction as of June 30, 2015 are:



SEWERAGE AND WATER BOARD OF NEW ORLEANS

	Water	Sewer	Total
Original Balance	\$43,317,517.45	\$10,211,084.42	\$53,528,601.87
Less Disbursements	(3,000,000.00)	(5,500,000.00)	(8,500,000.00)
Plus Reimbursements	112,662.44	-	112,662.44
Plus Income	34,453.62	5,797.18	40,250.80
Ending Balance	\$40,464,633.51	\$4,716,881.60	\$45,181,515.11

The days-of-cash at July 31, 2015 were 167.7 for the water system, 202.9 for the sewer system, and 428.2 for the drainage system.

The projected coverage for the year ending December 31, 2015, based upon financial results through June 30, 2015, remains at the budgeted level of 3.28 times for the water system and 3.04 times for the sewer system.

Certification. In connection with the accompanying monthly financial report of the Sewerage and Water Board of New Orleans for the period ended August 31, 2015, I hereby certify that, to my knowledge, the information contained in the report fairly presents, in all material respects, the financial condition and results of the Board.

Robert K. Miller
Deputy Director

Sewerage and Water Board of New Orleans
Comparative Variance Indicators for Financial Results
Through August 2015

Statement of Revenues, Expenses, and Changes in Net Position with Prior Year Comparisons				
	Total	Water	Sewer	Drainage
Revenues				
Operating Expenses				
Non-Operating Revenues and Expenses				
Income before Capital Contributions				
Statement of Revenues, Expenses, and Changes in Net Position with Budget Comparisons				
	Total	Water	Sewer	Drainage
Revenues				
Operating Expenses				
Non-Operating Revenues and Expenses				
Income before Capital Contributions				
Statement of Net Position with Prior Year Comparisons				
	Total	Water	Sewer	Drainage
Plant, Property, and Equipment				
Restricted Current Assets				
Unrestricted Designated Current Assets				
Unrestricted Undesignated Current Assets				
Net Position				
Long-Term Liabilities				
Current Liabilities from Unrestricted Assets				
Current Liabilities from Restricted Assets				
Statement of Cash Flows with Prior Year Comparisons				
	Total	Water	Sewer	Drainage
Operating Activities				
Non-Capital Financing Activities				
Capital and Related Financing Activities				
Investing Activities				
Net Increase in Cash				

Green = Favorable Variance

Yellow = Unfavorable Variance / No Action Recommended

Red = Unfavorable Variance / Action Recommended

Sewerage and Water Board of New Orleans

Total Number of Open Accounts

EUM Attribute:
Financial Viability

Description: Establish and maintain an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues.

Constituency:
Customer Ratepayers

Objective: Increase number of open accounts by two percent per year.

Goal: Increase number of customers by two percent per year.

Currently Meeting Goal: Close

Process Operating Within Control Limits:
Yes

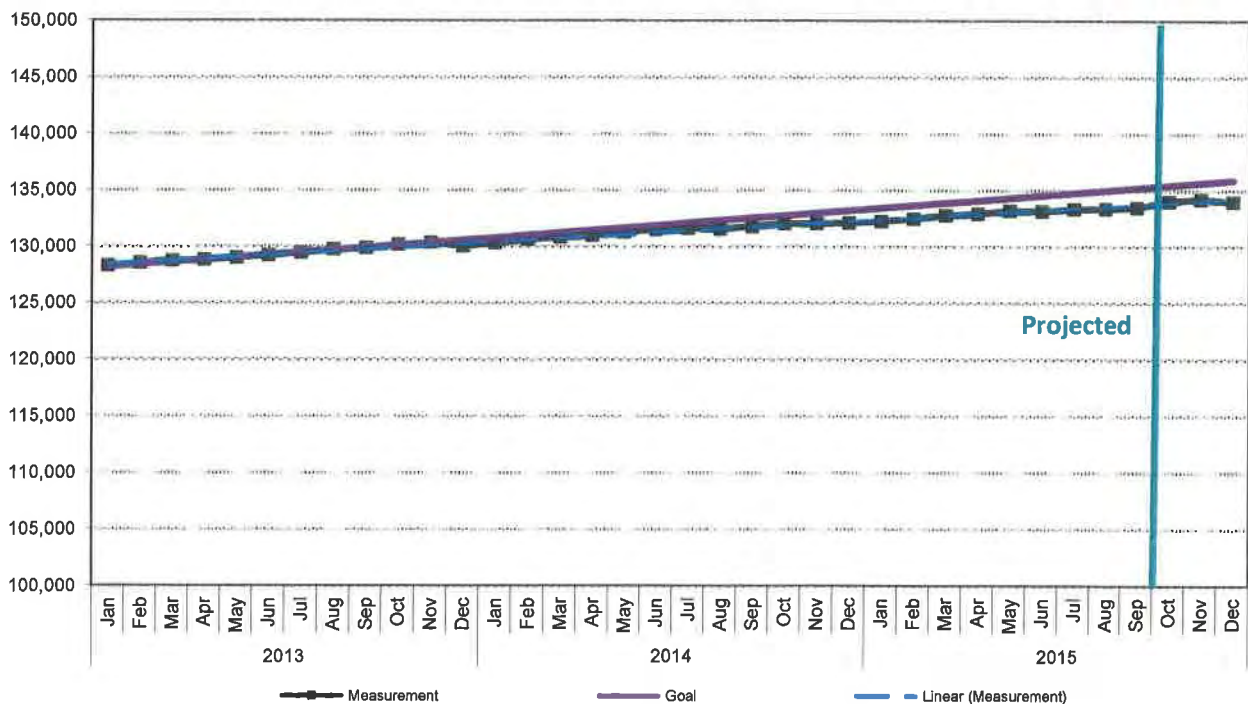
Trend: Favorable

Analysis

The 2013-2020 Financial Plan assumed that the number of open accounts would increase by 2.0% annually from a baseline of 128,002 accounts at the end of 2012. Results through third quarter 2015 indicate that the actual number of open accounts has increased by 1.5%. Note that the y-axis intersects with the x-axis at 100,000 accounts.

Plans for Improvement

No further action is contemplated at this time. Future calibrations of the financial plan may reflect a slightly lower growth rate assumption.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	128,266	128,515	128,718	128,777	128,969	129,192	129,419	129,719	129,845	130,139	130,326	130,007
2014	130,278	130,597	130,803	130,946	131,251	131,493	131,600	131,525	131,749	131,994	132,005	132,091
2015	132,237	132,459	132,735	132,896	133,157	133,104	133,316	133,330	133,463	134,002	134,200	133,967

Sewerage and Water Board of New Orleans

Total Billed Consumption

EUM Attribute:
Financial Viability

Description: Establish and maintain an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues.

Constituency:
Bondholders

Objective: Sell volume of water targeted in financial plan and operating budget.

Goal: Sell targeted number of gallons per month considering customer growth rate and consumption drag rate.

Currently Meeting Goal: Yes, based upon actual to-date and seasonally adjusted projection.

Process Operating Within Control Limits:
Yes

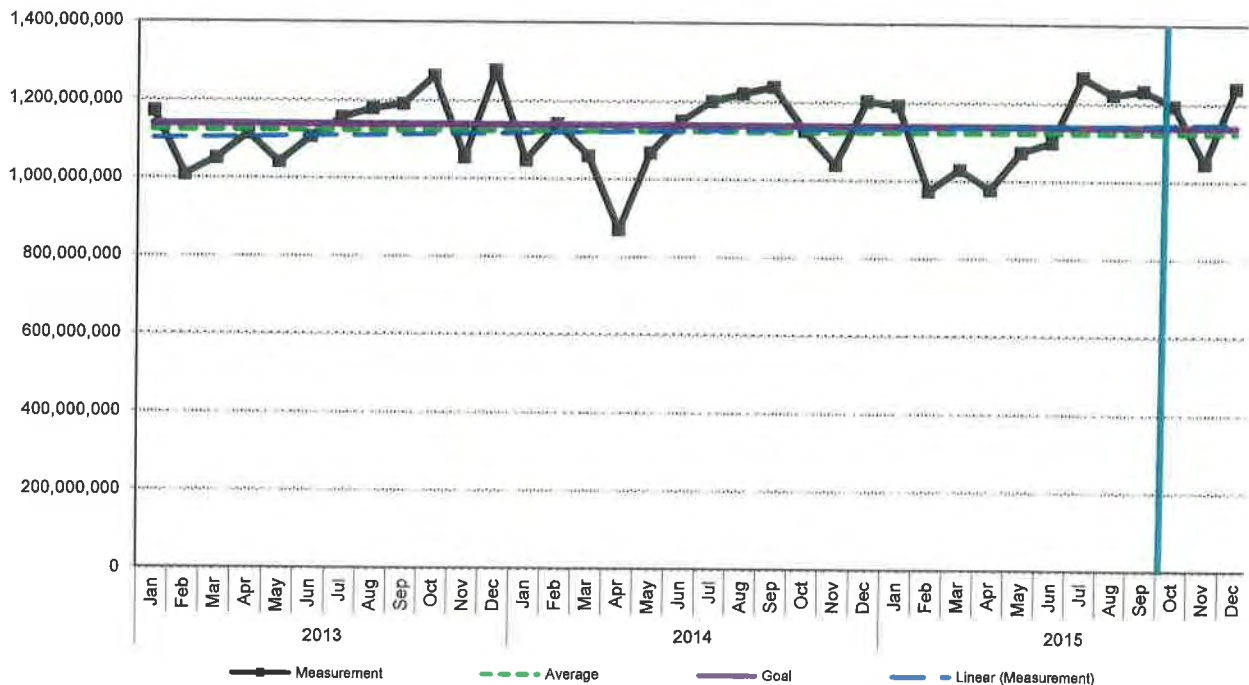
Trend: Level

Analysis

Billed consumption is anticipated to increase as new customer accounts are added to the system and decrease as consumption per account decreases due to price elasticity of demand associated with annual rate increases, with total billed consumption remaining relatively level. Average monthly total billed consumption is nearly identical to the volume targeted in the financial plan and operating budget.

Plans for Improvement

Billed consumption may increase as older water meters are exchanged with newer, more accurate meters and as Field Account Review activities identify and correct customer account records to accurately reflect field conditions. Future calibrations of the financial plan may reflect a slightly lower growth rate assumption.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	1,170 M	1,007 M	1,050 M	1,113 M	1,040 M	1,105 M	1,155 M	1,178 M	1,190 M	1,261 M	1,054 M	1,277 M
2014	1,047 M	1,140 M	1,058 M	869 M	1,067 M	1,149 M	1,199 M	1,219 M	1,238 M	1,126 M	1,039 M	1,202 M
2015	1,192 M	973 M	1,028 M	977 M	1,072 M	1,098 M	1,265 M	1,221 M	1,232 M	1,194 M	1,046 M	1,239 M

Sewerage and Water Board of New Orleans

Total System Unrestricted Cash and Cash Equivalents in Days of O&M Expenses at Month End

EUM Attribute:
Financial Viability

Description: Establish and maintain an effective balance between long-term debt, assets values, operations and maintenance expenditures, and operating revenues.

Constituency:
Suppliers and Bondholders

Objective: Provide adequate cash to pay invoices on a timely basis

Goal: Cash balance of at least 180 days of O&M expenses.

Currently Meeting Goal: Yes

Process Operating Within Control Limits:
Yes

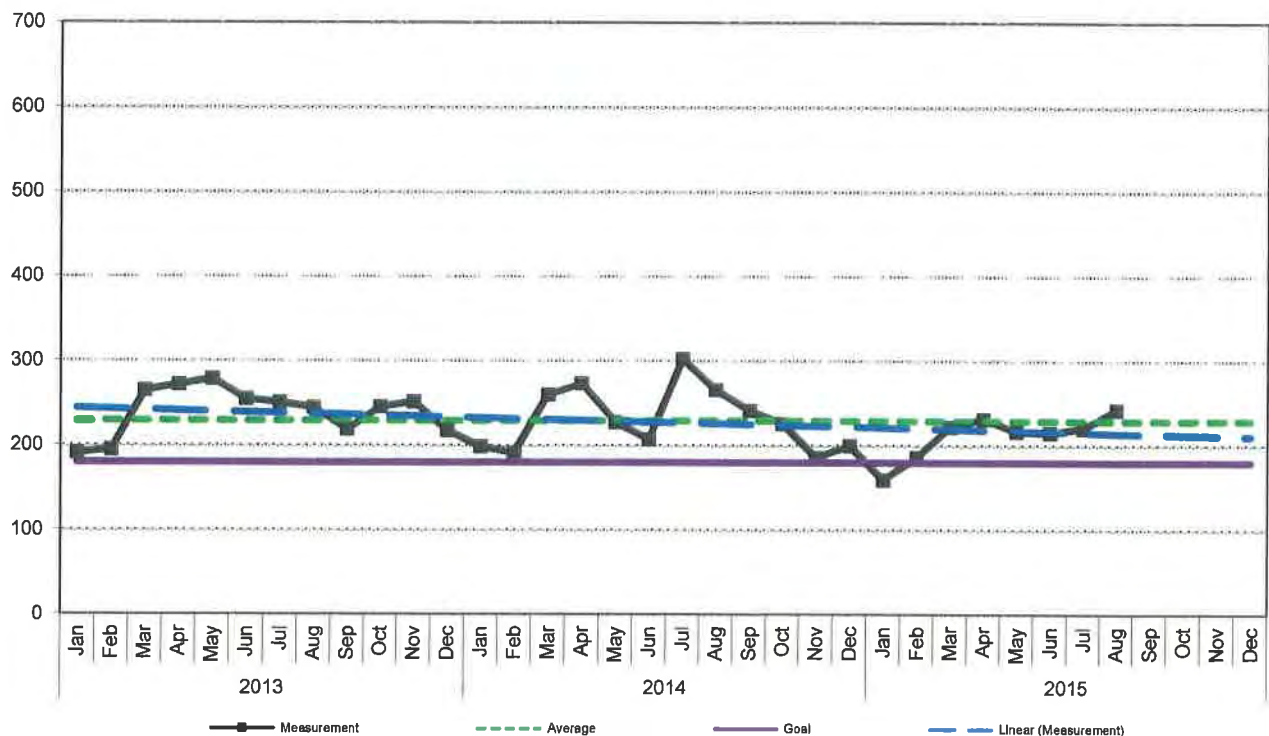
Trend: Favorable

Analysis

Monthly cash balances have remained stable except for repayment of previous inter-system loans. Note: Reclassification of certain current assets from restricted to unrestricted in October 2013 resulted in higher unrestricted balances.

Plans for Improvement

Utilize revenues generated from operations to increase cash balances according to 2011-2020 Financial Plan.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	190.6	194.5	264.6	271.5	278.3	254.4	250.3	244.0	218.2	244.8	250.9	217.0
2014	197.8	190.6	259.3	272.6	226.7	206.7	301.8	265.2	240.8	225.2	185.2	199.1
2015	158.8	185.6	221.5	230.9	216.1	214.6	220.1	241.7				

Sewerage and Water Board of New Orleans

Water System Unrestricted Cash and Cash Equivalents in Days of O&M Expenses at Month End

EUM Attribute:
Financial Viability

Description: Establish and maintain an effective balance between long-term debt, assets values, operations and maintenance expenditures, and operating revenues.

Constituency:
Suppliers and
Bondholders

Objective: Provide adequate cash to pay invoices on a timely basis

Goal: Cash balance of at least 180 days of O&M expenses.

Currently Meeting Goal: No

Process Operating Within Control Limits:
Yes

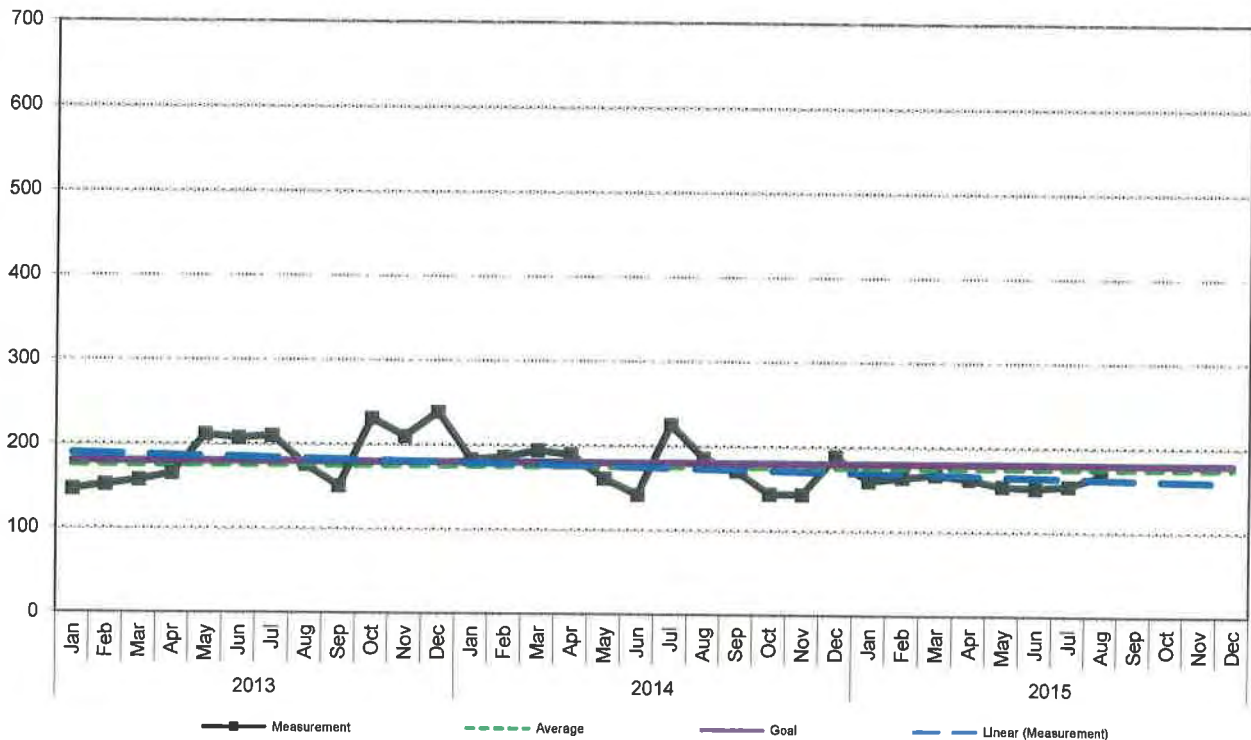
Trend: Unfavorable

Analysis

Monthly cash balances have remained stable except for repayment of previous inter-system loans. Note: Reclassification of certain current assets from restricted to unrestricted in October 2013 resulted in higher unrestricted balances.

Plans for Improvement

Utilize revenues generated from operations to increase cash balances according to 2011-2020 Financial Plan.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	145.7	151.1	156.7	164.7	210.8	206.5	209.5	175.1	150.3	230.8	209.5	238.2
2014	182.5	185.4	193.5	189.0	160.4	141.3	224.6	185.3	170.4	143.0	142.9	188.1
2015	158.9	163.6	167.0	162.1	153.4	151.6	154.2	167.7				

Sewerage and Water Board of New Orleans

Sewer System Unrestricted Cash and Cash Equivalents in Days of O&M Expenses at Month End

EUM Attribute:
Financial Viability

Description: Establish and maintain an effective balance between long-term debt, assets values, operations and maintenance expenditures, and operating revenues.

Constituency:
Suppliers and Bondholders

Objective: Provide adequate cash to pay invoices on a timely basis

Goal: Cash balance of at least 180 days of O&M expenses.

Currently Meeting Goal: Yes

Process Operating Within Control Limits:
Yes

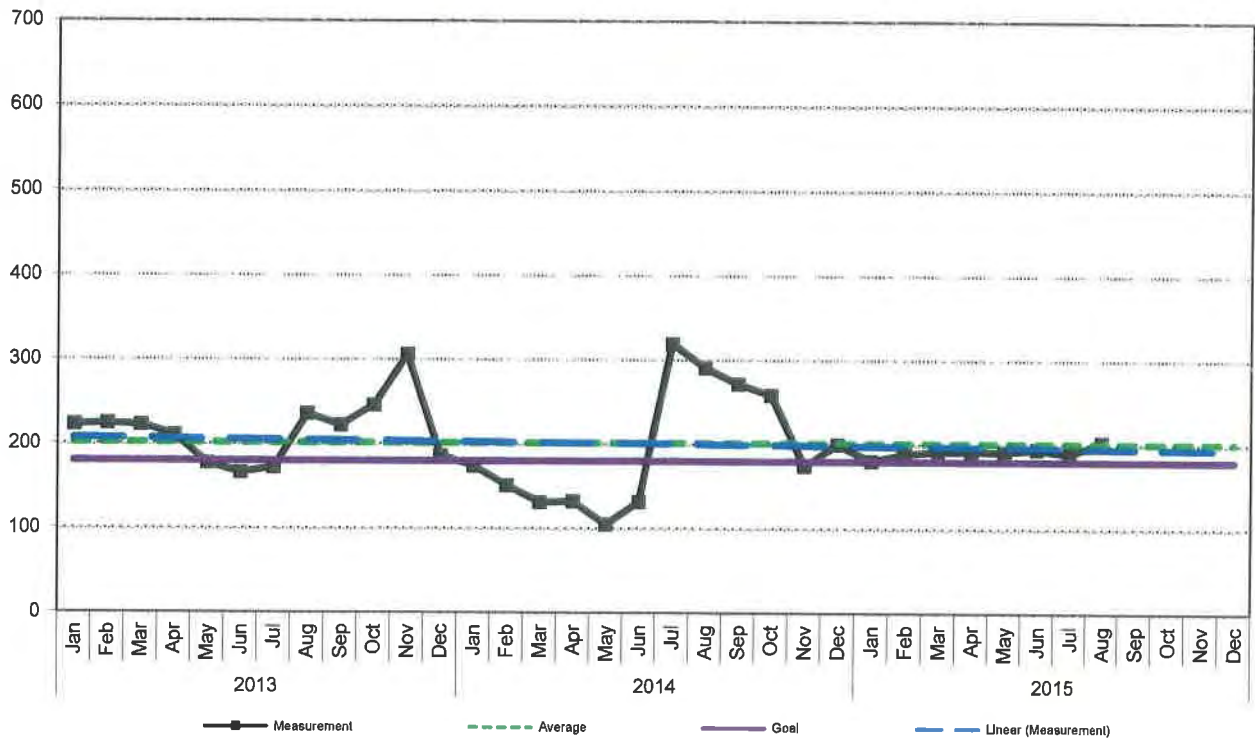
Trend: Favorable

Analysis

Monthly cash balances have remained stable except for repayment of previous inter-system loans. Note: Reclassification of certain current assets from restricted to unrestricted in October 2013 resulted in higher unrestricted balances.

Plans for Improvement

Utilize revenues generated from operations to increase cash balances according to 2011-2020 Financial Plan.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	222.4	224.0	222.2	210.2	176.8	165.7	171.4	235.5	221.9	245.6	305.7	186.0
2014	173.5	150.4	130.5	131.7	104.5	130.8	319.0	290.3	271.4	258.1	174.1	199.8
2015	180.0	188.6	191.4	191.4	191.1	194.5	188.9	202.9				

Sewerage and Water Board of New Orleans

Drainage System Unrestricted Cash and Cash Equivalents in Days of O&M Expenses at Month End

EUM Attribute:
Financial Viability

Description: Establish and maintain an effective balance between long-term debt, assets values, operations and maintenance expenditures, and operating revenues.

Constituency:
Suppliers and Bondholders

Objective: Provide adequate cash to pay invoices on a timely basis

Goal: Cash balance of at least 180 days of O&M expenses.

Currently Meeting Goal: Yes

Process Operating Within Control Limits:
Yes

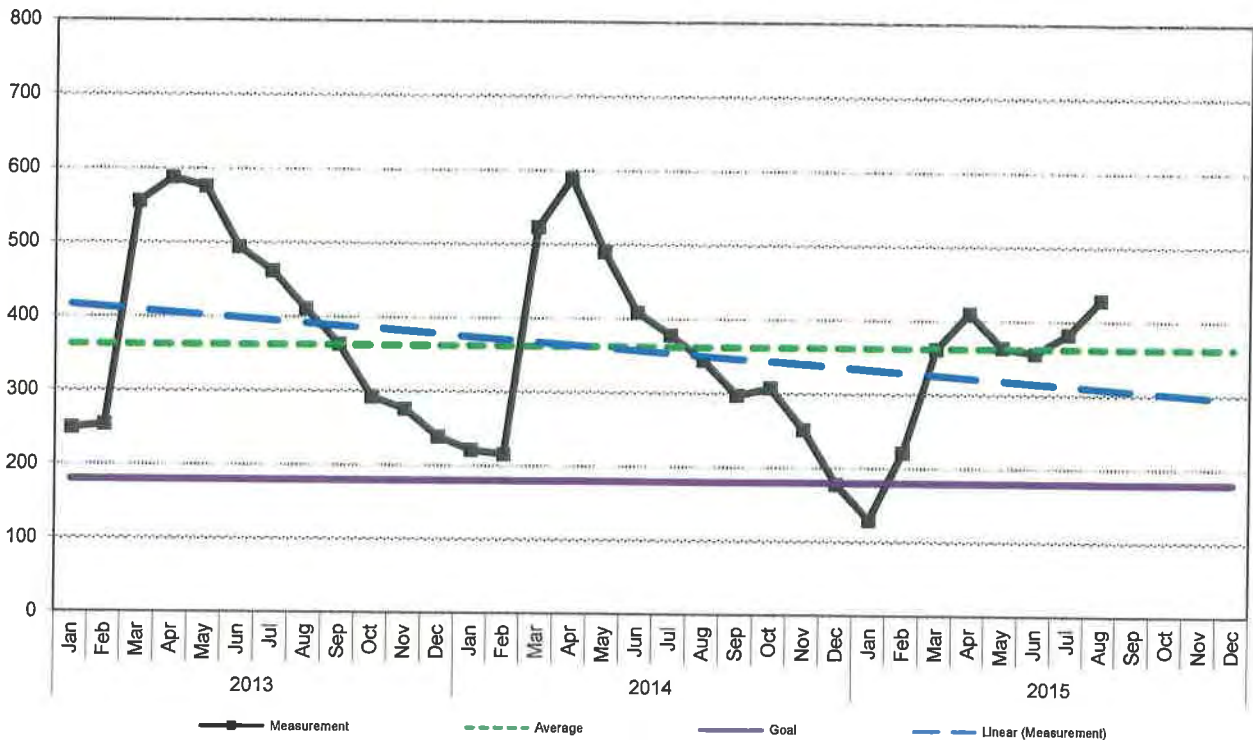
Trend: Favorable

Analysis

Monthly cash balances typically increase during the first quarter from property tax collections and then decrease for the remainder of the year. The long-term goal will not be met until a new revenue stream for the drainage system is created and implemented.

Plans for Improvement

Utilize revenues generated from operations to increase cash balances according to 2011-2020 Financial Plan.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	248.8	253.6	555.2	587.3	575.5	493.6	461.4	410.0	362.5	291.8	275.4	238.4
2014	220.7	215.0	522.7	588.7	489.2	407.8	377.6	343.8	296.8	306.8	251.0	177.3
2015	129.2	220.6	360.8	409.2	363.2	355.3	381.5	428.2				

SEWERAGE AND WATER BOARD OF NEW ORLEANS
ALL SYSTEM FUNDS
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD	MTD	MTD	%	YTD	YTD	YTD	%
	Actual	Prior Year	Variance		Actual	Prior Year	Variance	
Operating revenues:								
1 Sales of water and delinquent fees	7,110,424	6,768,843	341,581	5.0%	51,391,302	46,514,131	4,877,171	10.5%
2 Sewerage service charges and del fees	8,516,266	7,959,087	557,179	7.0%	63,152,684	56,831,832	6,320,852	11.1%
3 Plumbing inspection and license fees	40,070	40,972	(902)	-2.2%	399,638	448,758	(49,120)	-10.9%
4 Other revenues	3,403,728	264,962	3,138,766	1184.6%	5,834,363	2,909,565	2,924,798	100.5%
5 Total operating revenues	19,070,488	15,033,864	4,036,624	26.9%	120,777,987	106,704,286	14,073,701	13.2%
Operating Expenses:								
6 Power and pumping	1,142,806	1,070,556	72,250	6.7%	8,152,394	8,217,187	(64,793)	-0.8%
7 Treatment	1,530,668	1,693,914	(163,246)	-9.6%	12,210,796	12,629,809	(419,013)	-3.3%
8 Transmision and distribution	3,429,089	2,194,565	1,234,524	56.3%	18,728,746	15,645,297	3,083,449	19.7%
9 Customer accounts	275,085	256,697	18,388	7.2%	2,312,196	2,254,530	57,666	2.6%
10 Customer service	335,496	332,209	3,287	1.0%	2,514,534	2,455,135	59,399	2.4%
11 Administration and general	859,050	(1,529,926)	2,388,976	-156.1%	11,792,002	12,219,985	(427,983)	-3.5%
12 Payroll related	2,119,133	4,226,458	(2,107,325)	-49.9%	22,651,435	24,680,131	(2,028,696)	-8.2%
13 Maintenance of general plant	2,136,461	2,197,939	(61,478)	-2.8%	16,299,821	17,739,054	(1,439,233)	-8.1%
14 Depreciation	4,679,821	3,074,342	1,605,479	52.2%	37,438,568	24,594,736	12,843,832	52.2%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	185,403	165,235	20,168	12.2%	1,483,224	1,321,880	161,344	12.2%
17 Provision for claims	139,300	125,957	13,343	10.6%	1,051,538	862,613	188,925	21.9%
18 Total operating expenses	16,832,312	13,807,946	3,024,366	21.9%	134,635,254	122,620,357	12,014,897	9.8%
19 Operating income (loss)	2,238,176	1,225,918	1,012,258	82.6%	(13,857,267)	(15,916,071)	2,058,804	-12.9%
Non-operating revenues (expense):								
20 Two-mill tax	60	-	60	0.0%	930	-	930	0.0%
21 Three-mill tax	113,969	183,152	(69,183)	-37.8%	13,934,276	13,121,422	812,854	6.2%
22 Six-mill tax	115,229	185,116	(69,887)	-37.8%	14,083,687	13,262,028	821,659	6.2%
23 Nine-mill tax	380,324	277,482	102,842	37.1%	21,110,632	19,879,240	1,231,392	6.2%
24 Interest income	57,427	6,415	51,012	795.2%	505,733	270,340	235,393	87.1%
25 Other Income	-	-	-	0.0%	288,285	283,796	4,489	1.6%
26 Interest expense	-	(2,385,511)	2,385,511	-100.0%	-	(2,385,511)	2,385,511	-100.0%
27 Operating and maintenance grants	271	-	271	0.0%	405	700	(295)	-42.1%
28 Total non-operating revenues	667,280	(1,733,346)	2,400,626	-138.5%	49,923,948	44,432,015	5,491,933	12.4%
29 Income before capital contributions	2,905,456	(507,428)	3,412,884	-672.6%	36,066,681	28,515,944	7,550,737	26.5%
30 Capital contributions	3,123,259	2,518,937	604,322	24.0%	21,084,657	32,600,174	(11,515,517)	-35.3%
31 Change in net position	6,028,715	2,011,509	4,017,206	199.7%	57,151,338	61,116,118	(3,964,780)	-6.5%
32 Net position, beginning of year					1,968,799,361	1,816,132,598	152,666,763	8.4%
33 Net position, end of year					2,025,950,699	1,877,248,716	148,701,983	7.9%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
ALL SYSTEM FUNDS
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD Actual	MTD Budget	MTD Variance	%	YTD Actual	YTD Budget	YTD Variance	%
Operating revenues:								
1 Sales of water and delinquent fees	7,110,424	6,609,060	501,364	7.6%	51,391,302	51,693,422	(302,120)	-0.6%
2 Sewerage service charges and del fees	8,516,266	8,070,794	445,472	5.5%	63,152,684	63,126,522	26,162	0.0%
3 Plumbing inspection and license fees	40,070	53,586	(13,516)	-25.2%	399,638	428,689	(29,051)	-6.8%
4 Other revenues	3,403,728	293,454	3,110,274	1059.9%	5,834,363	2,347,631	3,486,732	148.5%
5 Total operating revenues	19,070,488	15,026,894	4,043,594	26.9%	120,777,987	117,596,265	3,181,722	2.7%
Operating Expenses:								
6 Power and pumping	1,142,806	1,121,475	21,332	1.9%	8,152,394	8,971,796	(819,402)	-9.1%
7 Treatment	1,530,668	1,727,477	(196,809)	-11.4%	12,210,796	13,819,818	(1,609,022)	-11.6%
8 Transmission and distribution	3,429,089	2,806,939	622,150	22.2%	18,728,746	17,342,700	1,386,046	8.0%
9 Customer accounts	275,085	287,327	(12,242)	-4.3%	2,312,196	2,298,615	13,581	0.6%
10 Customer service	335,496	375,995	(40,499)	-10.8%	2,514,534	3,007,963	(493,429)	-16.4%
11 Administration and general	859,050	3,203,992	(2,344,942)	-73.2%	11,792,002	23,467,911	(11,675,909)	-49.8%
12 Payroll related	2,119,133	2,362,837	(243,704)	-10.3%	22,651,435	18,902,695	3,748,740	19.8%
13 Maintenance of general plant	2,136,461	2,774,663	(638,202)	-23.0%	16,299,821	22,197,305	(5,897,484)	-26.6%
14 Depreciation	4,679,821	3,885,847	793,974	20.4%	37,438,568	37,438,568	-	0.0%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	185,403	-	185,403	0.0%	1,483,224	1,483,224	-	0.0%
17 Provision for claims	139,300	223,038	(83,738)	-37.5%	1,051,538	1,051,538	-	0.0%
18 Total operating expenses	16,832,312	18,769,590	(1,937,278)	-10.3%	134,635,254	149,982,134	(15,346,880)	-10.2%
19 Operating income (loss)	2,238,176	(3,742,696)	5,980,872	-159.8%	(13,857,267)	(32,385,870)	18,528,603	-57.2%
Non-operating revenues (expense):								
20 Two-mill tax	60	-	60	0.0%	930	-	930	0.0%
21 Three-mill tax	113,969	-	113,969	0.0%	13,934,276	13,357,609	576,667	4.3%
22 Six-mill tax	115,229	-	115,229	0.0%	14,083,687	13,500,746	582,941	4.3%
23 Nine-mill tax	380,324	-	380,324	0.0%	21,110,632	20,364,000	746,632	3.7%
24 Interest income	57,427	-	57,427	0.0%	505,733	-	505,733	0.0%
25 Other Income	-	131,095	(131,095)	-100.0%	288,285	1,048,760	(760,475)	-72.5%
26 Interest expense	-	(261,777)	261,777	-100.0%	-	(2,094,215)	2,094,215	-100.0%
27 Operating and maintenance grants	271	-	271	0.0%	405	-	405	0.0%
28 Total non-operating revenues	667,280	(130,682)	797,962	-610.6%	49,973,948	46,176,900	3,747,048	8.1%
29 Income before capital contributions	2,905,456	(3,873,378)	6,778,834	-175.0%	36,066,681	13,791,030	22,275,651	161.5%
30 Capital contributions	3,123,259	-	3,123,259	0.0%	21,084,657	-	21,084,657	0.0%
31 Change in net position	6,028,715	(3,873,378)	9,902,093	-255.6%	57,151,338	13,791,030	43,360,308	314.4%
32 Net position, beginning of year					1,968,799,361	1,816,132,598	152,666,763	8.4%
33 Net position, end of year					2,025,950,699	1,822,489,754	203,460,945	11.2%

AUGUST 2015

Page 3

SEWERAGE AND WATER BOARD OF NEW ORLEANS
ALL SYSTEM FUNDS
STATEMENTS OF NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G
	Prior	Variance	%	Current	Variance	%	Beginning of
NET ASSETS AND LIABILITIES	Year			Year			Year
Net position							
1 Net investments in capital assets	1,876,430,356	186,314,043	9.9%	2,062,744,399	49,684,022	2.5%	2,013,060,377
2 Restricted for Debt Service	33,165,862	22,965,972	69.2%	56,131,834	25,284,875	82.0%	30,846,959
3 Unrestricted	(32,347,502)	(60,578,032)	187.3%	(92,925,534)	(17,817,554)	23.7%	(75,107,980)
4 Total net position	1,877,248,716	148,701,983	7.9%	2,025,950,699	57,151,343	2.9%	1,968,799,356
Long-term liabilities							
5 Claims payable	1,913,607	680,547	35.6%	2,594,154	-	0.0%	2,594,154
6 Net pension obligation	18,301,300	3,198,375	17.5%	21,499,675	3,624,615	20.3%	17,875,060
7 Other postretirement benefits liability	59,249,256	5,585,325	9.4%	64,834,581	3,625,836	5.9%	61,208,745
8 Bonds payable (net of current maturities)	306,787,727	(13,107,823)	-4.3%	293,679,904	-	0.0%	293,679,904
9 Special Community Disaster Loan Payable	-	-	0.0%	-	-	0.0%	-
10 Southeast Louisiana Project liability	29,391,071	37,264,905	126.8%	66,655,976	-	0.0%	66,655,976
11 Debt Service Assistance Fund Loan payable	65,879,035	(4,225,896)	-6.4%	61,653,139	-	0.0%	61,653,139
12 Total long-term liabilities	481,521,996	29,395,433	6.1%	510,917,429	7,250,451.00	1.4%	503,666,978
Current liabilities (payable from current assets)							
13 Accounts payable and other liabilities	20,324,974	(2,446,851)	-12.0%	17,878,123	(28,851,025)	-61.7%	46,729,148
14 Due to City of New Orleans	304,174	800,334	263.1%	1,104,508	944,336	589.6%	160,172
15 Disaster Reimbursement Revolving Loan	17,426,830	(2,782,414)	-16.0%	14,644,416	(3,250,625)	-18.2%	17,895,041
16 Retainers and estimates payable	7,323,251	194,027	2.6%	7,517,278	(428,997)	-5.4%	7,946,275
17 Due to other fund	276,242	15,030	5.4%	291,272	(2,398)	-0.8%	293,670
18 Accrued salaries, vacation and sick pay	9,981,662	(560,814)	-5.6%	9,420,848	(1,758,935)	-15.7%	11,179,783
19 Claims payable	11,000,794	(780,755)	-7.1%	10,220,039	-	0.0%	10,220,039
20 Debt Service Assistance Fund Loan payable	4,038,502	187,390	4.6%	4,225,892	-	0.0%	4,225,892
21 Advances from federal government	10,887,732	(2,677,427)	-24.6%	8,210,305	2,052,756	33.3%	6,157,549
22 Other Liabilities	232,770	510,322	219.2%	743,092	668,883	901.4%	74,209
23 Total current liabilities (payable from current assets)	81,796,931	(7,541,158)	-9.2%	74,255,773	(30,626,005)	-29.2%	104,881,778
Current liabilities (payable from restricted assets)							
24 Accrued interest	1,897,290	584,388	30.8%	2,481,678	-	0.0%	2,481,678
25 Bonds payable	1,905,000	11,354,000	596.0%	13,259,000	-	0.0%	13,259,000
26 Retainers and estimates payable	284,602	(96,105)	-33.8%	188,497	64,814	52.4%	123,683
27 Customer deposits	10,590,249	476,375	4.5%	11,066,624	364,769	3.4%	10,701,855
28 Total current liabilities (payable from restricted assets)	14,677,141	12,318,658	83.9%	26,995,799	429,583	1.6%	26,566,216
29 Total current liabilities	96,474,072	4,777,500	5.0%	101,251,572	(30,196,422)	-23.0%	131,447,994
30 Total liabilities	577,996,068	551,604	0.1%	612,169,001	(22,945,971)	-3.6%	635,114,972
Deferred inflows or resources:							
31 Unavailable revenue -refunding of bonds	-	-	0.0%	-	-	0.0%	-
32 TOTAL DEFERRED INFLOWS OF RESOURCES	-	-	0.0%	-	-	0.0%	-
33 Total Net Position, Liabilities and Deferred Inflows of Resources	2,455,244,784	149,253,587	6.1%	2,638,119,700	34,205,372	1.3%	2,603,914,328

SEWERAGE AND WATER BOARD OF NEW ORLEANS
ALL SYSTEM FUNDS
STATEMENTS OF CASH FLOWS
August 2015

	A YTD Current Year	B YTD Prior Year	C YTD Variance	D %
Cash flows from operating activities				
1 Cash received from customers	113,089,894	100,921,819	12,168,075	12.1%
2 Cash payments to suppliers for goods and services	(83,901,075)	(71,753,240)	(12,147,835)	16.9%
3 Cash payments to employees for services	(38,831,069)	(40,183,073)	1,352,004	-3.4%
4 Other revenue	6,117,010	5,210,916	906,094	17.4%
5 Net cash used in operating activities	(3,525,240)	(5,803,578)	2,278,338	-39.3%
Cash flows from noncapital financing activities				
6 Proceeds from property taxes	49,662,007	46,667,582	2,994,425	6.4%
7 Proceeds from federal operating and maintenance grants	-	4,189,318	(4,189,318)	-100.0%
8 Cash received paid to an other government	-	-	-	0.0%
9 Net cash provided by noncapital financing activities	49,662,007	50,856,900	(1,194,893)	-2.3%
Cash flows from capital and related financing activities				
10 Acquisition and construction of capital assets	(44,626,026)	(34,571,880)	(10,054,146)	29.1%
11 Principal payments on bonds payable	-	(13,695,000)	13,695,000	-100.0%
12 Proceeds from bonds payable	-	284,063,460	(284,063,460)	-100.0%
13 Payments for bond issuance costs	-	-	-	0.0%
14 Payment to refunded bond escrow agent	-	(154,451,191)	154,451,191	-100.0%
15 Interest paid on bonds payable	625,250	(3,155,661)	3,780,911	-119.8%
16 Proceeds from construction fund, net	(3,250,639)	5,733,487	(8,984,126)	-156.7%
17 Capital contributed by developers and federal grants	31,145,649	(15,231,811)	46,377,460	-304.5%
18 Net cash used in capital and related financing activities	(16,105,766)	68,691,404	(84,797,170)	-123.4%
Cash flows from investing activities				
19 Payments for purchase of investments	-	-	-	0.0%
20 Proceeds from maturities of investments	-	1,692,754	(1,692,754)	-100.0%
21 Investment income	505,675	202,801	302,874	149.3%
22 Net cash provided by investing activities	505,675	1,895,555	(1,389,880)	-73.3%
23 Net increase in cash	30,536,676	115,640,281	(85,103,605)	-73.6%
24 Cash at the beginning of the year	196,048,912	119,451,442	76,597,470	64.1%
25 Cash at the end of the period	226,585,588	235,091,723	(8,506,135)	-3.6%
Reconciliation of cash and restricted cash				
26 Current assets - cash	47,105,817	47,975,362	(869,545)	-1.8%
27 Current assets - designated	60,621,263	125,803,734	(65,182,471)	-51.8%
28 Restricted assets - cash	118,858,508	61,312,627	57,545,881	93.9%
29 Total cash	226,585,588	235,091,723	(8,506,135)	-3.6%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
ALL SYSTEM FUNDS
STATEMENTS OF CASH FLOWS
August 2015

	A YTD Current Year	B YTD Prior Year	C YTD Variance	D %
Reconciliation of operating loss to net cash used in operating activities is as follows:				
Operating loss	(13,857,267)	(15,916,071)	2,058,804	-12.9%
Adjustments to reconcile net operating loss to net cash used in operating activities:				
Depreciation	37,438,568	24,594,736	12,843,832	52.2%
Provision for claims	1,051,538	862,613	188,925	21.9%
Provision for (revision) doubtful accounts	1,476,560	1,321,880	154,680	11.7%
Amortization	-	-	-	0.0%
Change in operating assets and liabilities:				
(Increase) decrease in customer and other receivables	(2,398,429)	(2,568,196)	169,767	-6.6%
Increase in inventory	-	-	-	0.0%
Increase (decrease) in prepaid expenses and other receivables	(110,326)	1,852,591	(1,962,917)	-106.0%
Decrease in net pension asset	-	-	-	0.0%
Increase (decrease) in accounts payable	(32,551,452)	(20,997,514)	(11,553,938)	55.0%
Increase (decrease) in accrued salaries, due to pension and accrued vacation and sick pay	(1,761,333)	(1,578,117)	(183,216)	11.6%
Increase in net other postretirement benefits liability	3,625,836	4,470,822	(844,986)	-18.9%
Increase (decrease) in net pension obligation	3,624,615	2,870,964	753,651	26.3%
Decrease in other liabilities	(63,550)	(717,286)	653,736	-91.1%
Net cash used in operating activities	(3,525,240)	(5,803,578)	2,278,338	-39.3%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD	MTD	MTD	%	YTD	YTD	YTD	%
	Actual	Prior Year	Variance		Actual	Prior Year	Variance	
Operating revenues:								
1 Sales of water and delinquent fees	7,110,424	6,768,843	341,581	5.0%	51,391,302	46,514,131	4,877,171	10.5%
2 Sewerage service charges and del fees	-	-	-	0.0%	-	-	-	0.0%
3 Plumbing inspection and license fees	20,035	20,486	(451)	-2.2%	199,819	224,379	(24,560)	-10.9%
4 Other revenues	251,182	224,892	26,290	11.7%	2,194,521	1,959,575	234,946	12.0%
5 Total operating revenues	7,381,641	7,014,221	367,420	5.2%	53,785,642	48,698,085	5,087,557	10.4%
Operating Expenses:								
6 Power and pumping	287,480	265,227	22,253	8.4%	1,788,239	1,866,842	(78,603)	-4.2%
7 Treatment	617,134	653,823	(36,689)	-5.6%	4,994,525	5,383,546	(389,021)	-7.2%
8 Transmission and distribution	2,018,353	1,214,346	804,007	66.2%	10,001,614	10,015,075	(13,461)	-0.1%
9 Customer accounts	137,449	128,076	9,373	7.3%	1,154,625	1,124,946	29,679	2.6%
10 Customer service	160,965	159,348	1,617	1.0%	1,209,437	1,181,924	27,513	2.3%
11 Administration and general	246,676	(741,702)	988,378	-133.3%	4,211,172	4,409,744	(198,572)	-4.5%
12 Payroll related	861,636	1,864,973	(1,003,337)	-53.8%	9,556,704	10,621,502	(1,064,798)	-10.0%
13 Maintenance of general plant	1,235,971	1,393,146	(157,175)	-11.3%	9,306,501	9,441,296	(134,795)	-1.4%
14 Depreciation	1,737,062	1,046,508	690,554	66.0%	13,896,496	8,372,064	5,524,432	66.0%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	95,834	117,022	(21,188)	-18.1%	766,672	936,176	(169,504)	-18.1%
17 Provision for claims	62,643	50,039	12,604	25.2%	418,073	357,008	61,065	17.1%
18 Total operating expenses	7,461,203	6,150,806	1,310,397	21.3%	57,304,058	53,710,123	3,593,935	6.7%
19 Operating income (loss)	(79,562)	863,415	(942,977)	-109.2%	(3,518,416)	(5,012,038)	1,493,622	-29.8%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	-	-	-	0.0%	-	-	-	0.0%
22 Six-mill tax	-	-	-	0.0%	-	-	-	0.0%
23 Nine-mill tax	-	-	-	0.0%	-	-	-	0.0%
24 Interest income	38,698	3,086	35,612	1154.0%	308,364	101,011	207,353	205.3%
25 Other Income	-	-	-	0.0%	128,287	126,289	1,998	1.6%
26 Interest expense	-	(1,040,131)	1,040,131	-100.0%	-	(1,040,131)	1,040,131	-100.0%
27 Operating and maintenance grants	271	-	271	0.0%	405	654	(249)	-38.1%
28 Total non-operating revenues	38,969	(1,037,045)	1,076,014	-103.8%	437,056	(812,177)	1,249,233	-153.8%
29 Income before capital contributions	(40,593)	(173,630)	133,037	-76.6%	(3,081,360)	(5,824,215)	2,742,855	-47.1%
30 Capital contributions	1,844,934	1,334,902	510,032	38.2%	7,505,990	7,234,115	271,875	3.8%
31 Change in net position	1,804,341	1,161,272	643,069	55.4%	4,424,630	1,409,900	3,014,730	213.8%
32 Net position, beginning of year					317,835,814	313,268,717	4,567,097	1.5%
33 Net position, end of year					322,260,444	314,678,617	7,581,827	2.4%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD Actual	MTD Budget	MTD Variance	%	YTD Actual	YTD Budget	YTD Variance	%
Operating revenues:								
1 Sales of water and delinquent fees	7,110,424	6,609,060	501,364	7.6%	51,391,302	51,693,422	(302,120)	-0.6%
2 Sewerage service charges and del fees	-	-	-	0.0%	-	-	-	0.0%
3 Plumbing inspection and license fees	20,035	26,793	(6,758)	-25.2%	199,819	214,345	(14,526)	-6.8%
4 Other revenues	251,182	269,375	(18,193)	-6.8%	2,194,521	2,155,002	39,519	1.8%
5 Total operating revenues	7,381,641	6,905,228	476,413	6.9%	53,785,642	54,062,769	(277,127)	-0.5%
Operating Expenses:								
6 Power and pumping	287,480	252,605	34,875	13.8%	1,788,239	2,020,839	(232,600)	-11.5%
7 Treatment	617,134	749,153	(132,019)	-17.6%	4,994,525	5,993,224	(998,699)	-16.7%
8 Transmission and distribution	2,018,353	1,514,064	504,289	33.3%	10,001,614	9,674,370	327,244	3.4%
9 Customer accounts	137,449	143,362	(5,913)	-4.1%	1,154,625	1,146,893	7,732	0.7%
10 Customer service	160,965	182,539	(21,574)	-11.8%	1,209,437	1,460,313	(250,876)	-17.2%
11 Administration and general	246,676	1,112,068	(865,392)	-77.8%	4,211,172	7,814,530	(3,603,358)	-46.1%
12 Payroll related	861,636	1,105,844	(244,208)	-22.1%	9,556,704	8,846,748	709,956	8.0%
13 Maintenance of general plant	1,235,971	1,126,732	109,239	9.7%	9,306,501	9,013,858	292,643	3.2%
14 Depreciation	1,737,062	1,537,917	199,145	12.9%	13,896,496	13,896,496	-	0.0%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	95,834	-	95,834	0.0%	766,672	766,672	-	0.0%
17 Provision for claims	62,643	92,574	(29,931)	-32.3%	418,073	418,073	-	0.0%
18 Total operating expenses	7,461,203	7,816,857	(355,654)	-4.5%	57,304,058	61,052,016	(3,747,958)	-6.1%
19 Operating income (loss)	(79,562)	(911,629)	832,067	-91.3%	(3,518,416)	(6,989,247)	3,470,831	-49.7%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	-	-	-	0.0%	-	-	-	0.0%
22 Six-mill tax	-	-	-	0.0%	-	-	-	0.0%
23 Nine-mill tax	-	-	-	0.0%	-	-	-	0.0%
24 Interest income	38,698	-	38,698	0.0%	308,364	-	308,364	0.0%
25 Other Income	-	33,375	(33,375)	-100.0%	128,287	267,001	(138,714)	-52.0%
26 Interest expense	-	(22,384)	22,384	-100.0%	-	(179,071)	179,071	-100.0%
27 Operating and maintenance grants	271	-	271	0.0%	405	-	405	0.0%
28 Total non-operating revenues	38,969	10,991	27,978	254.5%	437,056	87,929	349,127	397.1%
29 Income before capital contributions	(40,593)	(900,638)	860,045	-95.5%	(3,081,360)	(6,901,318)	3,819,958	-55.4%
30 Capital contributions	1,844,934	-	1,844,934	0.0%	7,505,990	-	7,505,990	0.0%
31 Change in net position	1,804,341	(900,638)	2,704,979	-300.3%	4,424,630	-	-	-
32 Net position, beginning of year	-	-	-	-	317,835,814	313,268,717	4,567,097	1.5%
33 Net position, end of year	-	-	-	-	322,260,444	313,268,717	8,991,727	2.9%

**SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND**

**STATEMENTS OF NET POSITION
WITH PRIOR YEAR AND BEGINNING OF YEAR COMPARISONS
AUGUST 2015**

		A		B		C		D		E		F		G	
		Prior		Variance		%		Current		Variance		%		Beginning of	
		Year		Year		Year		Year		Year		Year		Year	
Assets															
Noncurrent assets:															
1	Property, plant and equipment	693,668,960	41,075,993	5.9%	734,744,953	16,695,190	2.3%	718,045,763	1						
2	Less: accumulated depreciation	312,708,411	22,419,798	7.2%	335,128,209	13,896,495	4.3%	321,231,714	2						
3	Property, plant, and equipment, net	380,960,549	18,656,195	4.9%	399,616,744	2,802,695	0.7%	396,814,049	3						
Restricted cash, cash equivalents, and investments															
4	Cash and cash equivalents restricted for capital projects	2,586,055	44,770,088	1731.2%	47,356,143	(11,070,625)	-18.9%	58,426,768	4						
5	Debt service reserve	11,925,072	2,733,241	22.9%	14,658,313	4,436,214	43.4%	10,222,099	5						
6	Health insurance reserve	775,834	(116,667)	-15.0%	659,167	-	0.0%	659,167	6						
7	Total restricted cash, cash equivalents, and investments	15,286,961	47,386,562	310.0%	62,673,623	(6,634,411)	-9.6%	69,308,034	7						
Designated cash, cash equivalents, and investments															
8	Cash and cash equivalents designated for capital projects	66,817,386	(59,249,206)	-88.7%	7,568,180	(348,072)	-4.4%	7,916,252	8						
9	Customer deposits	10,590,249	476,375	4.5%	11,066,624	364,769	3.4%	10,701,855	9						
10	Other	1,557,246	121,078	7.8%	1,678,324	2,564	0.2%	1,675,760	10						
11	Total designated cash and cash equivalents, and investments	78,964,881	(58,651,753)	-74.3%	20,313,128	19,261	0.1%	20,293,867	11						
Current assets:															
Unrestricted and undesignated															
12	Cash and cash equivalents	15,023,448	(2,401,212)	-16.0%	12,622,236	418,629	3.3%	12,203,607	12						
Accounts receivable:															
13	Customers (net of allowance for doubtful accounts)	8,036,116	1,408,628	17.5%	9,444,744	811,175	8.6%	8,633,569	13						
14	Taxes	-	-	0.0%	-	-	0.0%	-	14						
15	Interest	-	-	0.0%	-	-	0.0%	-	15						
16	Grants	7,782,155	8,866,470	113.9%	16,648,625	(1,106,119)	-6.2%	17,754,744	16						
17	Miscellaneous	691,895	70,743	10.2%	762,638	89,328	13.3%	673,310	17						
18	Due from enterprise fund	(4,064,634)	(4,176,261)	102.7%	(8,240,895)	70,775	-0.9%	(8,311,670)	18						
19	Inventory of supplies	4,528,425	(838,553)	-18.5%	3,689,872	-	0.0%	3,689,872	19						
20	Prepaid expenses	505,681	(24,430)	-4.8%	481,251	-	0.0%	481,251	20						
21	Total unrestricted current assets	32,503,086	2,905,385	8.9%	35,408,471	283,788	0.8%	35,124,683	21						
Other assets:															
22	Bond issue costs	-	-	0.0%	-	-	0.0%	-	22						
23	Deposits	22,950	-	0.0%	22,950	-	0.0%	22,950	23						
24	Total other assets	22,950	-	0.0%	22,950	-	0.0%	22,950	24						
25	TOTAL ASSETS	507,738,427	10,296,489	2.0%	518,034,916	(3,528,667)	-0.7%	521,563,583	25						
Deferred outflows or resources:															
26	Deferred charge on refunding	34,901	(2,182)	-6.3%	32,719	-	0.0%	32,719	26						
27	TOTAL DEFERRED OUTFLOWS OF RESOURCES	34,901	(2,182)	-6.3%	32,719	-	0.0%	32,719	27						
28	TOTAL ASSETS AND TOTAL DEFERRED OUTFLOWS	507,773,328	10,294,307	-4.2%	518,067,635	(3,528,667)	-0.7%	521,596,302	28						

SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND
STATEMENTS OF NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G
NET ASSETS AND LIABILITIES	Prior Year	Variance	%	Current Year	Variance	%	Beginning of Year
Net position							
1 Net investments in capital assets	278,105,899	25,117,318	9.0%	303,223,217	17,633,351	6.2%	285,589,866
2 Restricted for Debt Service	11,733,931	2,924,382	24.9%	14,658,313	4,436,214	43.4%	10,222,099
3 Unrestricted	24,838,787	(20,459,873)	-82.4%	4,378,914	(17,644,926)	-80.1%	22,023,840
4 Total net position	314,678,617	7,581,827	2.4%	322,260,444	4,424,639	1.4%	317,835,805
Long-term liabilities							
5 Claims payable	637,869	226,849	35.6%	864,718	-	0.0%	864,718
6 Net pension obligation	6,005,276	1,066,125	17.8%	7,071,401	1,208,205	20.6%	5,863,196
7 Other postretirement benefits liability	22,190,918	1,861,775	8.4%	24,052,693	1,208,612	5.3%	22,844,081
8 Bonds payable (net of current maturities)	111,228,048	(3,865)	0.0%	111,224,183	-	0.0%	111,224,183
9 Special Community Disaster Loan Payable	-	-	0.0%	-	-	0.0%	-
10 Southeast Louisiana Project liability	-	-	0.0%	-	-	0.0%	-
11 Debt Service Assistance Fund Loan payable	5,788,945	(371,342)	-6.4%	5,417,603	-	0.0%	5,417,603
12 Total long-term liabilities	145,851,056	2,779,542	1.9%	148,630,598	2,416,817	1.7%	146,213,781
Current liabilities (payable from current assets)							
13 Accounts payable and other liabilities	9,127,654	(267,029)	-2.9%	8,860,625	(9,953,573)	-52.9%	18,814,198
14 Due to City of New Orleans	304,174	800,334	263.1%	1,104,508	944,336	589.6%	160,172
15 Disaster Reimbursement Revolving Loan	6,972,028	67,774	1.0%	7,039,802	(1,302,368)	-15.6%	8,342,170
16 Retainers and estimates payable	2,344,220	445,342	19.0%	2,789,562	(202,132)	-6.8%	2,991,694
17 Due to other fund	135,358	7,365	5.4%	142,723	(815)	-0.6%	143,538
18 Accrued salaries, vacation and sick pay	4,746,217	(218,598)	-4.6%	4,527,619	(779,093)	-14.7%	5,306,712
19 Claims payable	3,982,894	(131,891)	-3.3%	3,851,003	-	0.0%	3,851,003
20 Debt Service Assistance Fund Loan payable	354,869	16,469	4.6%	371,338	-	0.0%	371,338
21 Advances from federal government	8,182,773	(1,866,536)	-22.8%	6,316,237	158,688	2.6%	6,157,549
22 Other Liabilities	229,869	322,234	140.2%	552,103	479,473	660.2%	72,630
23 Total current liabilities (payable from current assets)	36,380,056	(824,536)	-2.3%	35,555,520	(10,655,484)	-23.1%	46,211,004
Current liabilities (payable from restricted assets)							
24 Accrued interest	191,142	363,307	190.1%	554,449	-	0.0%	554,449
25 Bonds payable	-	-	0.0%	-	-	0.0%	-
26 Retainers and estimates payable	82,208	(82,208)	-100.0%	-	(79,408)	-100.0%	79,408
27 Customer deposits	10,590,249	476,375	4.5%	11,066,624	364,769	3.4%	10,701,855
28 Total current liabilities (payable from restricted assets)	10,863,599	757,474	7.0%	11,621,073	285,361	2.5%	11,335,712
29 TOTAL CURRENT LIABILITIES	47,243,655	(67,062)	-0.1%	47,176,593	(10,370,123)	-18.0%	57,546,716
30 TOTAL LIABILITIES	193,094,711	2,712,480	1.4%	195,807,191	(7,953,306)	-3.9%	203,760,497
Deferred inflows or resources:							
31 Unavailable revenue -refunding of bonds	-	-	0.0%	-	-	0.0%	-
32 TOTAL DEFERRED INFLOWS OF RESOURCES	-	-	0.0%	-	-	0.0%	-
33 Total Net Position, Liabilities and Deferred Inflows of Resources	507,773,328	10,294,307	2.0%	518,067,635	(3,528,667)	-0.7%	521,596,302

SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND
STATEMENTS OF CASH FLOWS
August 2015

	A	B	C	D
	YTD	YTD	YTD	%
	Current Year	Prior Year	Variance	
Cash flows from operating activities				
1 Cash received from customers	51,122,560	45,518,916	5,603,644	12.3%
2 Cash payments to suppliers for goods and services	(32,411,299)	(30,272,607)	(2,138,692)	7.1%
3 Cash payments to employees for services	(19,343,604)	(25,758,992)	6,415,388	-24.9%
4 Other revenue	2,305,012	2,334,436	(29,424)	-1.3%
5 Net cash used in operating activities	1,672,669	(8,178,247)	9,850,916	-120.5%
Cash flows from noncapital financing activities				
6 Proceeds from property taxes	128,287	126,289	1,998	1.6%
7 Proceeds from federal operating and maintenance grants	-	3,770,115	(3,770,115)	-100.0%
8 Cash received paid to an other government	-	-	-	0.0%
9 Net cash provided by noncapital financing activities	128,287	3,896,404	(3,768,117)	-96.7%
Cash flows from capital and related financing activities				
10 Acquisition and construction of capital assets	(16,254,139)	(21,389,310)	5,135,171	-24.0%
11 Principal payments on bonds payable	-	-	-	0.0%
12 Proceeds from bonds payable	-	111,224,183	(111,224,183)	-100.0%
13 Payments for bond issuance costs	-	-	-	0.0%
14 Payment to refunded bond escrow agent	-	(27,884,012)	27,884,012	-100.0%
15 Interest paid on bonds payable	479,473	(827,868)	1,307,341	-157.9%
16 Proceeds from construction fund, net	(1,302,377)	4,576,811	(5,879,188)	-128.5%
17 Capital contributed by developers and federal grants	8,771,202	(1,921,563)	10,692,765	-556.5%
18 Net cash used in capital and related financing activities	(8,305,841)	63,778,241	(72,084,082)	-113.0%
Cash flows from investing activities				
19 Payments for purchase of investments	-	-	-	0.0%
20 Proceeds from maturities of investments	-	1,692,754	(1,692,754)	-100.0%
21 Investment income	308,364	87,695	220,669	251.6%
22 Net cash provided by investing activities	308,364	1,780,449	(1,472,085)	-82.7%
23 Net increase in cash	(6,196,521)	61,276,847	(67,473,368)	-110.1%
24 Cash at the beginning of the year	95,855,508	43,741,197	52,114,311	119.1%
25 Cash at the end of the period	89,658,987	105,018,044	(15,359,057)	-14.6%
Reconciliation of cash and restricted cash				
26 Current assets - cash	12,622,236	15,023,448	(2,401,212)	-16.0%
27 Current assets - designated	17,063,128	77,407,635	(60,344,507)	-78.0%
28 Restricted assets - cash	59,973,623	12,586,961	47,386,662	376.5%
29 Total cash	89,658,987	105,018,044	(15,359,057)	-14.6%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND
STATEMENTS OF CASH FLOWS
August 2015

	A	B	C	D
	YTD	YTD	YTD	%
	Current Year	Prior Year	Variance	
Reconciliation of operating loss to net cash used in operating activities is as follows:				
1 Operating loss	(3,518,416)	(5,012,038)	1,493,622	-29.8%
Adjustments to reconcile net operating loss to net cash used in operating activities:				
2 Depreciation	13,896,496	8,372,064	5,524,432	66.0%
3 Provision for claims	418,073	357,008	61,065	17.1%
4 Provision for (revision) doubtful accounts	766,672	936,176	(169,504)	-18.1%
5 Amortization	-	-	-	0.0%
Change in operating assets and liabilities:				
6 (Increase) decrease in customer and other receivables	(1,213,078)	(1,139,267)	(73,811)	6.5%
7 Increase in inventory	-	-	-	0.0%
8 Increase (decrease) in prepaid expenses and other receivables	(160,103)	(5,399,191)	5,239,088	-97.0%
9 Decrease in net pension asset	-	-	-	0.0%
10 Increase (decrease) in accounts payable	(10,680,165)	(7,831,107)	(2,849,058)	36.4%
11 Increase (decrease) in accrued salaries, due to pension and accrued vacation and sick pay	(779,908)	(696,198)	(83,710)	12.0%
12 Increase in net other postretirement benefits liability	1,208,612	1,490,274	(281,662)	-18.9%
13 Increase (decrease) in net pension obligation	1,208,205	956,988	251,217	26.3%
14 Decrease in other liabilities	526,281	(212,956)	739,237	-347.1%
15 Net cash used in operating activities	1,672,669	(8,178,247)	9,850,916	-120.5%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
SEWER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD Actual	MTD Prior Year	MTD Variance	%	YTD Actual	YTD Prior Year	YTD Variance	%
Operating revenues:								
1 Sales of water and delinquent fees	-	-	-	0.0%	-	-	-	0.0%
2 Sewerage service charges and del fees	8,516,266	7,959,087	557,179	7.0%	63,152,684	56,831,832	6,320,852	11.1%
3 Plumbing inspection and license fees	20,035	20,486	(451)	-2.2%	199,819	224,379	(24,560)	-10.9%
4 Other revenues	72,647	37,843	34,804	92.0%	285,460	371,204	(85,744)	-23.1%
5 Total operating revenues	8,608,948	8,017,416	591,532	7.4%	63,637,963	57,427,415	6,210,548	10.8%
Operating Expenses:								
6 Power and pumping	240,947	250,586	(9,639)	-3.8%	1,750,455	1,823,153	(72,698)	-4.0%
7 Treatment	903,513	1,030,110	(126,597)	-12.3%	7,151,032	7,179,104	(28,072)	-0.4%
8 Transmission and distribution	1,345,914	917,645	428,269	46.7%	8,073,149	5,156,819	2,916,330	56.6%
9 Customer accounts	137,449	128,076	9,373	7.3%	1,154,623	1,124,943	29,680	2.6%
10 Customer service	162,423	160,755	1,668	1.0%	1,222,127	1,195,918	26,209	2.2%
11 Administration and general	329,387	(1,041,555)	1,370,942	-131.6%	4,037,257	4,172,987	(135,730)	-3.3%
12 Payroll related	704,711	1,328,565	(623,854)	-47.0%	7,321,625	7,831,910	(510,285)	-6.5%
13 Maintenance of general plant	252,079	185,146	66,933	36.2%	1,919,432	2,835,720	(916,288)	-32.3%
14 Depreciation	1,417,143	1,011,382	405,761	40.1%	11,337,144	8,091,056	3,246,088	40.1%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	88,736	48,213	40,523	84.0%	709,888	385,704	324,184	84.0%
17 Provision for claims	40,125	31,870	8,255	25.9%	270,915	229,817	41,098	17.9%
18 Total operating expenses	5,622,427	4,050,793	1,571,634	38.8%	44,947,647	40,027,131	4,920,516	12.3%
19 Operating income (loss)	2,986,521	3,966,623	(980,102)	-24.7%	18,690,316	17,400,284	1,290,032	7.4%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	-	-	-	0.0%	-	-	-	0.0%
22 Six-mill tax	-	-	-	0.0%	-	-	-	0.0%
23 Nine-mill tax	-	-	-	0.0%	-	-	-	0.0%
24 Interest income	10,586	1,069	9,517	890.3%	152,534	124,066	28,468	22.9%
25 Other Income	-	-	-	0.0%	159,998	157,507	2,491	1.6%
26 Interest expense	-	(1,345,380)	1,345,380	-100.0%	-	(1,345,380)	1,345,380	-100.0%
27 Operating and maintenance grants	-	-	-	0.0%	-	23	(23)	-100.0%
28 Total non-operating revenues	10,586	(1,344,311)	1,354,897	-100.8%	312,532	(1,063,784)	1,376,316	-129.4%
29 Income before capital contributions	2,997,107	2,622,312	374,795	14.3%	19,002,848	16,336,500	2,666,348	16.3%
30 Capital contributions	969,932	893,040	76,892	8.6%	8,781,550	17,600,363	(8,818,813)	-50.1%
31 Change in net position	3,967,039	3,515,352	451,687	12.8%	27,784,398	33,936,863	(6,152,465)	-18.1%
32 Net position, beginning of year	-	-	-	-	732,566,915	666,666,891	65,900,024	9.9%
33 Net position, end of year	-	-	-	-	760,351,313	700,603,754	59,747,559	8.5%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
SEWER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD	MTD	MTD	Variance	YTD	YTD	YTD	%
	Actual	Budget			Actual	Budget	Variance	
Operating revenues:								
1 Sales of water and delinquent fees	-	-	-	0.0%	-	-	-	0.0%
2 Sewerage service charges and del fees	8,516,266	8,070,794	445,472	5.5%	63,152,684	63,126,522	26,162	0.0%
3 Plumbing inspection and license fees	20,035	26,793	(6,758)	-25.2%	199,819	214,345	(14,526)	-6.8%
4 Other revenues	72,647	24,079	48,568	201.7%	285,460	192,629	92,831	48.2%
5 Total operating revenues	8,608,948	8,121,666	487,282	6.0%	63,637,963	63,533,496	104,467	0.2%
Operating Expenses:								
6 Power and pumping	240,947	214,284	26,663	12.4%	1,750,455	1,714,275	36,180	2.1%
7 Treatment	903,513	964,066	(60,553)	-6.3%	7,151,032	7,712,529	(561,497)	-7.3%
8 Transmission and distribution	1,345,914	1,231,476	114,438	9.3%	8,073,149	7,177,136	896,013	12.5%
9 Customer accounts	137,449	143,362	(5,913)	-4.1%	1,154,623	1,146,893	7,730	0.7%
10 Customer service	162,423	184,088	(21,665)	-11.8%	1,222,127	1,472,707	(250,580)	-17.0%
11 Administration and general	329,387	1,180,864	(851,477)	-72.1%	4,037,257	8,364,904	(4,327,647)	-51.7%
12 Payroll related	704,711	726,300	(21,589)	-3.0%	7,321,625	5,810,399	1,511,226	26.0%
13 Maintenance of general plant	252,079	256,304	(4,225)	-1.6%	1,919,432	2,050,432	(131,000)	-6.4%
14 Depreciation	1,417,143	1,121,055	296,088	26.4%	11,337,144	11,337,144	-	0.0%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	88,736	-	88,736	0.0%	709,888	709,888	-	0.0%
17 Provision for claims	40,125	60,493	(20,368)	-33.7%	270,915	270,915	-	0.0%
18 Total operating expenses	5,622,427	6,082,293	(459,866)	-7.6%	44,947,647	47,767,223	(2,819,576)	-5.9%
19 Operating income (loss)	2,986,521	2,039,372	947,149	46.4%	18,690,316	15,766,273	2,924,043	18.5%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	-	-	-	0.0%	-	-	-	0.0%
22 Six-mill tax	-	-	-	0.0%	-	-	-	0.0%
23 Nine-mill tax	-	-	-	0.0%	-	-	-	0.0%
24 Interest income	10,586	-	10,586	0.0%	152,534	-	152,534	0.0%
25 Other Income	-	39,245	(39,245)	-100.0%	159,998	313,963	(153,965)	-49.0%
26 Interest expense	-	(218,131)	218,131	-100.0%	-	(1,745,044)	1,745,044	-100.0%
27 Operating and maintenance grants	-	-	-	0.0%	-	-	-	0.0%
28 Total non-operating revenues	10,586	(178,885)	189,471	-105.9%	312,532	(1,431,081)	1,743,613	-121.8%
29 Income before capital contributions	2,997,107	1,860,487	1,136,620	61.1%	19,002,848	14,335,192	4,667,656	32.6%
30 Capital contributions	969,932	-	969,932	0.0%	8,781,550	-	8,781,550	0.0%
31 Change in net position	3,967,039	1,860,487	2,106,552	113.2%	27,784,398	-	-	-
32 Net position, beginning of year	-	-	-	-	732,566,915	666,666,891	65,900,024	9.9%
33 Net position, end of year	-	-	-	-	760,351,313	666,666,891	93,684,422	14.1%

STATEMENTS OF NET POSITION

AUGUST 2015

Page 15

SEWERAGE AND WATER BOARD OF NEW ORLEANS
SEWER SYSTEM FUND
STATEMENTS OF NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G
	Prior Year	Variance	%	Current Year	Variance	%	Beginning of Year
NET ASSETS AND LIABILITIES							
Net position							
1 Net investments in capital assets	710,764,825	44,193,968	6.2%	754,958,793	24,795,737	3.4%	730,163,056
2 Restricted for Debt Service	19,543,041	19,357,009	99.0%	38,900,050	18,432,244	90.1%	20,467,806
3 Unrestricted	(29,704,112)	(3,803,418)	12.8%	(33,507,530)	(15,443,585)	85.5%	(18,063,945)
4 Total net position	700,603,754	59,747,559	8.5%	760,351,313	27,784,396	3.8%	732,566,917
Long-term liabilities							
5 Claims payable	637,869	226,849	35.6%	864,718	-	0.0%	864,718
6 Net pension obligation	6,135,222	1,066,125	17.4%	7,201,347	1,208,205	20.2%	5,993,142
7 Other postretirement benefits liability	19,212,570	1,861,775	9.7%	21,074,345	1,208,612	6.1%	19,865,733
8 Bonds payable (net of current maturities)	180,844,679	(11,644,000)	-6.4%	169,200,679	-	0.0%	169,200,679
9 Special Community Disaster Loan Payable	-	-	0.0%	-	-	0.0%	-
10 Southeast Louisiana Project liability	-	-	0.0%	-	-	0.0%	-
11 Debt Service Assistance Fund Loan payable	56,403,364	(3,618,064)	-6.4%	52,785,300	-	0.0%	52,785,300
12 Total long-term liabilities	263,233,704	(12,107,315)	-4.6%	251,126,389	2,416,817	1.0%	248,709,572
Current liabilities (payable from current assets)							
13 Accounts payable and other liabilities	8,986,392	(2,017,923)	-22.5%	6,968,469	(14,891,846)	-68.1%	21,860,315
14 Due to City of New Orleans	-	-	0.0%	-	-	0.0%	-
15 Disaster Reimbursement Revolving Loan	2,612,845	(1,992,950)	-76.3%	619,895	(1,949,528)	-75.9%	2,569,423
16 Retainers and estimates payable	4,516,624	(240,969)	-5.3%	4,275,655	(227,235)	-5.0%	4,502,890
17 Due to other fund	63,536	3,457	5.4%	66,993	(312)	-0.5%	67,305
18 Accrued salaries, vacation and sick pay	2,990,313	(167,514)	-5.6%	2,822,799	(529,963)	-15.8%	3,352,762
19 Claims payable	3,004,311	(233,539)	-7.8%	2,770,772	-	0.0%	2,770,772
20 Debt Service Assistance Fund Loan payable	3,457,630	160,434	4.6%	3,618,064	-	0.0%	3,618,064
21 Advances from federal government	2,704,959	(810,891)	-30.0%	1,894,068	1,894,068	0.0%	-
22 Other Liabilities	1,627	145,703	8955.3%	147,330	145,777	9386.8%	1,553
23 Total current liabilities (payable from current assets)	28,338,237	(5,154,192)	-18.2%	23,184,045	(15,559,039)	-40.2%	38,743,084
Current liabilities (payable from restricted assets)							
24 Accrued interest	1,561,918	253,447	16.2%	1,815,365	-	0.0%	1,815,365
25 Bonds payable	415,000	11,229,000	2705.8%	11,644,000	-	0.0%	11,644,000
26 Retainers and estimates payable	198,367	(9,870)	-5.0%	188,497	(144,222)	-325.7%	44,275
27 Customer deposits	-	-	0.0%	-	-	0.0%	-
28 Total current liabilities (payable from restricted assets)	2,175,285	11,472,577	527.4%	13,647,862	144,222	1.1%	13,503,640
29 TOTAL CURRENT LIABILITIES	30,513,522	6,318,385	20.7%	36,831,907	(15,414,817)	-29.5%	52,246,724
30 TOTAL LIABILITIES	293,747,226	(5,788,930)	-2.0%	287,958,296	(12,598,000)	-4.3%	300,956,296
Deferred inflows or resources:							
31 Unavailable revenue -refunding of bonds	-	-	0.0%	-	-	0.0%	-
32 TOTAL DEFERRED INFLOWS OF RESOURCES	-	-	0.0%	-	-	0.0%	-
33 Total Net Position, Liabilities and Deferred Inflows of Resources	994,350,980	\$3,958,629	5.4%	1,048,309,609	14,786,396	1.4%	1,033,523,213

SEWERAGE AND WATER BOARD OF NEW ORLEANS
SEWER SYSTEM FUND
STATEMENTS OF CASH FLOWS
August 2015

	A YTD Current Year	B YTD Prior Year	C YTD Variance	D %
Cash flows from operating activities				
1 Cash received from customers	61,967,334	55,402,903	6,564,431	11.8%
2 Cash payments to suppliers for goods and services	(36,568,598)	(27,785,237)	(8,783,361)	31.6%
3 Cash payments to employees for services	(12,216,750)	(12,656,644)	439,894	-3.5%
4 Other revenue	(588,731)	588,119	(1,176,850)	-200.1%
5 Net cash used in operating activities	12,593,255	15,549,141	(2,955,886)	-19.0%
Cash flows from noncapital financing activities				
6 Proceeds from property taxes	159,998	157,507	2,491	1.6%
7 Proceeds from federal operating and maintenance grants	-	419,203	(419,203)	-100.0%
8 Cash received paid to an other government	-	-	-	0.0%
9 Net cash provided by noncapital financing activities	159,998	576,710	(416,712)	-72.3%
Cash flows from capital and related financing activities				
10 Acquisition and construction of capital assets	(21,551,624)	(24,729,993)	3,178,369	-12.9%
11 Principal payments on bonds payable	-	(13,695,000)	13,695,000	-100.0%
12 Proceeds from bonds payable	-	172,839,277	(172,839,277)	-100.0%
13 Payments for bond issuance costs	-	-	-	0.0%
14 Payment to refunded bond escrow agent	-	(126,567,179)	126,567,179	-100.0%
15 Interest paid on bonds payable	145,777	(1,354,255)	1,500,032	-110.8%
16 Proceeds from construction fund, net	(1,949,530)	592,434	(2,541,964)	-429.1%
17 Capital contributed by developers and federal grants	13,640,402	17,111,747	(3,471,345)	-20.3%
18 Net cash used in capital and related financing activities	(9,714,975)	24,197,031	(33,912,006)	-140.1%
Cash flows from investing activities				
19 Payments for purchase of investments	-	-	-	0.0%
20 Proceeds from maturities of investments	-	-	-	0.0%
21 Investment income	152,476	69,843	82,633	118.3%
22 Net cash provided by investing activities	152,476	69,843	82,633	118.3%
23 Net increase in cash	3,190,754	40,392,725	(37,201,971)	-92.1%
24 Cash at the beginning of the year	78,334,621	52,445,731	25,888,890	49.4%
25 Cash at the end of the period	81,525,375	92,838,456	(11,313,081)	-12.2%
Reconciliation of cash and restricted cash				
26 Current assets - cash	18,159,838	29,361,796	(11,201,958)	-38.2%
27 Current assets - designated	12,893,874	22,003,057	(9,109,183)	-41.4%
28 Restricted assets -cash	50,471,663	41,473,603	8,998,060	21.7%
29 Total cash	81,525,375	92,838,456	(11,313,081)	-12.2%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
SEWER SYSTEM FUND
STATEMENTS OF CASH FLOWS
August 2015

	A YTD Current Year	B YTD Prior Year	C YTD Variance	D %
Reconciliation of operating loss to net cash used in operating activities is as follows:				
1 Operating loss	18,690,316	17,400,284	1,290,032	7.4%
Adjustments to reconcile net operating loss to net cash used in operating activities:				
2 Depreciation	11,337,144	8,091,056	3,246,088	40.1%
3 Provision for claims	270,915	229,817	41,098	17.9%
4 Provision for (revision) doubtful accounts	709,888	385,704	324,184	84.0%
5 Amortization	-	-	-	0.0%
Change in operating assets and liabilities:				
6 (Increase) decrease in customer and other receivables	(1,185,350)	(1,428,929)	243,579	-17.0%
7 Increase in inventory	-	-	-	0.0%
8 Increase (decrease) in prepaid expenses and other receivables	(1,411,334)	(597,566)	(813,768)	136.2%
9 Decrease in net pension asset	-	-	-	0.0%
10 Increase (decrease) in accounts payable	(17,433,951)	(10,281,473)	(7,152,478)	69.6%
11 Increase (decrease) in accrued salaries, due to pension and accrued vacation and sick pay	(530,275)	(467,197)	(63,078)	13.5%
12 Increase in net other postretirement benefits liability	1,208,612	1,490,274	(281,662)	-18.9%
13 Increase (decrease) in net pension obligation	1,208,205	956,988	251,217	26.3%
14 Decrease in other liabilities	(270,915)	(229,817)	(41,098)	17.9%
15 Net cash used in operating activities	12,593,255	15,549,141	(2,955,886)	-19.0%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
DRAINAGE SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD	MTD	MTD	%	YTD	YTD	YTD	%
	Actual	Prior Year	Variance		Actual	Prior Year	Variance	
Operating revenues:								
1 Sales of water and delinquent fees	-	-	-	0.0%	-	-	-	0.0%
2 Sewerage service charges and del fees	-	-	-	0.0%	-	-	-	0.0%
3 Plumbing inspection and license fees	-	-	-	0.0%	-	-	-	0.0%
4 Other revenues	3,079,899	2,227	3,077,672	138198.1%	3,354,382	578,786	2,775,596	479.6%
5 Total operating revenues	3,079,899	2,227	3,077,672	138198.1%	3,354,382	578,786	2,775,596	479.6%
Operating Expenses:								
6 Power and pumping	614,379	554,743	59,636	10.8%	4,613,700	4,527,192	86,508	1.9%
7 Treatment	10,021	9,981	40	0.4%	65,239	67,159	(1,920)	-2.9%
8 Transmission and distribution	64,822	62,574	2,248	3.6%	653,983	473,403	180,580	38.1%
9 Customer accounts	187	545	(358)	-65.7%	2,948	4,641	(1,693)	-36.5%
10 Customer service	12,108	12,106	2	0.0%	82,970	77,293	5,677	7.3%
11 Administration and general	282,987	253,331	29,656	11.7%	3,543,573	3,637,254	(93,681)	-2.6%
12 Payroll related	552,786	1,032,920	(480,134)	-46.5%	5,773,106	6,226,719	(453,613)	-7.3%
13 Maintenance of general plant	648,411	619,647	28,764	4.6%	5,073,888	5,462,038	(388,150)	-7.1%
14 Depreciation	1,525,616	1,016,452	509,164	50.1%	12,204,928	8,131,616	4,073,312	50.1%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	833	-	833	0.0%	6,664	-	6,664	0.0%
17 Provision for claims	36,532	44,048	(7,516)	-17.1%	362,550	275,788	86,762	31.5%
18 Total operating expenses	3,748,682	3,606,347	142,335	3.9%	32,383,549	28,883,103	3,500,446	12.1%
19 Operating income (loss)	(668,783)	(3,604,120)	2,935,337	-81.4%	(29,029,167)	(28,304,317)	(724,850)	2.6%
Non-operating revenues (expense):								
20 Two-mill tax	60	-	60	0.0%	930	-	930	0.0%
21 Three-mill tax	113,969	183,152	(69,183)	-37.8%	13,934,276	13,121,422	812,854	6.2%
22 Six-mill tax	115,229	185,116	(69,887)	-37.8%	14,083,687	13,262,028	821,659	6.2%
23 Nine-mill tax	380,324	277,482	102,842	37.1%	21,110,632	19,879,240	1,231,392	6.2%
24 Interest income	8,143	2,260	5,883	260.3%	44,835	45,263	(428)	-0.9%
25 Other Income	-	-	-	0.0%	-	-	-	0.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	-	-	-	0.0%	-	-	-	0.0%
28 Total non-operating revenues	617,725	648,010	(30,285)	-4.7%	49,174,360	46,307,976	2,866,384	6.2%
29 Income before capital contributions	(51,058)	(2,956,110)	2,905,052	-98.3%	20,145,193	18,003,659	2,141,534	11.9%
30 Capital contributions	308,393	290,995	17,398	6.0%	4,797,117	7,765,696	(2,968,579)	-38.2%
31 Change in net position	257,335	(2,665,115)	2,922,450	-109.7%	24,942,310	25,769,355	(827,045)	-3.2%
32 Net position, beginning of year					918,396,632	836,196,990	82,199,642	9.8%
33 Net position, end of year					943,338,942	861,966,345	81,372,597	9.4%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
DRAINAGE SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G	H
	MTD Actual	MTD Budget	MTD Variance	%	YTD Actual	YTD Budget	YTD Variance	%
Operating revenues:								
1 Sales of water and delinquent fees	-	-	-	0.0%	-	-	-	0.0%
2 Sewerage service charges and del fees	-	-	-	0.0%	-	-	-	0.0%
3 Plumbing inspection and license fees	-	-	-	0.0%	-	-	-	0.0%
4 Other revenues	3,079,899	-	3,079,899	0.0%	3,354,382	-	3,354,382	0.0%
5 Total operating revenues	3,079,899	-	3,079,899	0.0%	3,354,382	-	3,354,382	0.0%
Operating Expenses:								
6 Power and pumping	614,379	654,585	(40,206)	-6.1%	4,613,700	5,236,682	(622,982)	-11.9%
7 Treatment	10,021	14,258	(4,237)	-29.7%	65,239	114,065	(48,826)	-42.8%
8 Transmission and distribution	64,822	61,399	3,423	5.6%	653,983	491,194	162,789	33.1%
9 Customer accounts	187	604	(417)	-69.0%	2,948	4,829	(1,881)	-38.9%
10 Customer service	12,108	9,368	2,740	29.2%	82,970	74,944	8,026	10.7%
11 Administration and general	282,987	911,060	(628,073)	-68.9%	3,543,573	7,288,477	(3,744,904)	-51.4%
12 Payroll related	552,786	530,694	22,093	4.2%	5,773,106	4,245,548	1,527,558	36.0%
13 Maintenance of general plant	648,411	1,391,627	(743,216)	-53.4%	5,073,888	11,133,015	(6,059,127)	-54.4%
14 Depreciation	1,525,616	1,226,875	298,741	24.3%	12,204,928	12,204,928	-	0.0%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	833	-	833	0.0%	6,664	6,664	-	0.0%
17 Provision for claims	36,532	69,970	(33,438)	-47.8%	362,550	362,550	-	0.0%
18 Total operating expenses	3,748,682	4,870,439	(1,121,757)	-23.0%	32,383,549	41,162,895	(8,779,346)	-21.3%
19 Operating income (loss)	(668,783)	(4,870,439)	4,201,656	-86.3%	(29,029,167)	(41,162,895)	12,133,728	-29.5%
Non-operating revenues (expense):								
20 Two-mill tax	60	-	60	0.0%	930	-	930	0.0%
21 Three-mill tax	113,969	-	113,969	0.0%	13,934,276	13,357,609	576,667	4.3%
22 Six-mill tax	115,229	-	115,229	0.0%	14,083,687	13,500,746	582,941	4.3%
23 Nine-mill tax	380,324	-	380,324	0.0%	21,110,632	20,364,000	746,632	3.7%
24 Interest income	8,143	-	8,143	0.0%	44,835	-	44,835	0.0%
25 Other Income	-	58,475	(58,475)	-100.0%	-	467,797	(467,797)	-100.0%
26 Interest expense	-	(21,263)	21,263	-100.0%	-	(170,100)	170,100	-100.0%
27 Operating and maintenance grants	-	-	-	0.0%	-	-	-	0.0%
28 Total non-operating revenues	617,725	37,212	580,513	1560.0%	49,174,360	47,520,032	1,654,308	3.5%
29 Income before capital contributions	(51,058)	(4,833,227)	4,782,169	-98.9%	20,145,193	6,357,156	13,788,037	216.9%
30 Capital contributions	308,393	-	308,393	0.0%	4,797,117	-	4,797,117	0.0%
31 Change in net position	257,335	(4,833,227)	5,090,562	-105.3%	24,942,310	6,357,156	18,585,154	292.4%
32 Net position, beginning of year	-	-	-	-	918,396,632	836,196,990	82,199,642	9.8%
33 Net position, end of year	-	-	-	-	943,338,942	842,554,146	100,784,796	12.0%

AUGUST 2015

28 TOTAL ASSETS AND TOTAL DEFERRED OUTFLOWS

SEWERAGE AND WATER BOARD OF NEW ORLEANS
DRAINAGE SYSTEM FUND
STATEMENTS OF NET POSITION
WITH PRIOR YEAR COMPARISONS
AUGUST 2015

	A	B	C	D	E	F	G
	Prior	Variance	%	Current	Variance	%	Beginning of
	Year			Year			Year
NET ASSETS AND LIABILITIES							
Net position							
1 Net investments in capital assets	887,559,632	117,002,757	13.2%	1,004,562,389	7,254,934	0.7%	997,307,455
2 Restricted for Debt Service	1,888,890	684,581	36.2%	2,573,471	2,416,417	1538.6%	157,054
3 Unrestricted	(27,482,177)	(36,314,741)	132.1%	(63,796,918)	15,270,957	-19.3%	(79,067,875)
4 Total net position	861,966,345	81,372,597	9.4%	943,338,942	24,942,308	2.7%	918,396,634
Long-term liabilities							
5 Claims payable	637,869	226,849	35.6%	864,718	-	0.0%	864,718
6 Net pension obligation	6,160,802	1,066,125	17.3%	7,226,927	1,208,205	20.1%	6,018,722
7 Other postretirement benefits liability	17,845,768	1,861,775	10.4%	19,707,543	1,208,612	6.5%	18,498,931
8 Bonds payable (net of current maturities)	14,715,000	(1,459,958)	-9.9%	13,255,042	-	0.0%	13,255,042
9 Special Community Disaster Loan Payable	-	-	0.0%	-	-	0.0%	-
10 Southeast Louisiana Project liability	29,391,071	37,264,905	126.8%	66,655,976	-	0.0%	66,655,976
11 Debt Service Assistance Fund Loan payable	3,686,726	(236,490)	-6.4%	3,450,236	-	0.0%	3,450,236
12 Total long-term liabilities	72,437,236	38,723,206	53.5%	111,160,442	2,416,817	2.2%	108,743,625
Current liabilities (payable from current assets)							
13 Accounts payable and other liabilities	2,210,928	(161,899)	-7.3%	2,049,029	(4,005,606)	-66.2%	6,054,635
14 Due to City of New Orleans	-	-	0.0%	-	-	0.0%	-
15 Disaster Reimbursement Revolving Loan	7,841,957	(857,238)	-10.9%	6,984,719	1,271	0.0%	6,983,448
16 Retainers and estimates payable	462,407	(10,346)	-2.2%	452,061	370	0.1%	451,691
17 Due to other fund	77,348	4,208	5.4%	81,556	(1,271)	-1.5%	82,827
18 Accrued salaries, vacation and sick pay	2,245,132	(174,702)	-7.8%	2,070,430	(449,879)	-17.9%	2,520,309
19 Claims payable	4,013,589	(415,325)	-10.3%	3,598,264	-	0.0%	3,598,264
20 Debt Service Assistance Fund Loan payable	226,003	10,487	4.6%	236,490	-	0.0%	236,490
21 Advances from federal government	-	-	0.0%	-	-	0.0%	-
22 Other Liabilities	1,274	42,385	3326.9%	43,659	43,633	167819.2%	26
23 Total current liabilities (payable from current assets)	17,078,638	(1,562,430)	-9.1%	15,516,208	(4,411,482)	-22.1%	19,927,690
Current liabilities (payable from restricted assets)							
24 Accrued interest	144,230	(32,366)	-22.4%	111,864	-	0.0%	111,864
25 Bonds payable	1,490,000	125,000	8.4%	1,615,000	-	0.0%	1,615,000
26 Retainers and estimates payable	4,027	(4,027)	-100.0%	-	-	0.0%	-
27 Customer deposits	-	-	0.0%	-	-	0.0%	-
28 Total current liabilities (payable from restricted assets)	1,638,257	88,607	5.4%	1,726,864	-	0.0%	1,726,864
Total current liabilities	18,716,895	(1,473,823)	-7.9%	17,243,072	(4,411,482)	-20.4%	21,654,554
Total liabilities	91,154,131	37,249,383	40.9%	128,403,514	(1,994,665)	-1.5%	130,398,179
Deferred inflows or resources:							
31 Unavailable revenue --refunding of bonds	-	-	0.0%	-	-	0.0%	-
32 TOTAL DEFERRED INFLOWS OF RESOURCES	-	-	0.0%	-	-	0.0%	-
Total Net Position, Liabilities and Deferred Inflows of Resources	953,120,476	118,621,980	12.4%	1,071,742,456	22,947,643	2.2%	1,048,794,813

SEWERAGE AND WATER BOARD OF NEW ORLEANS
DRAINAGE SYSTEM FUND
STATEMENTS OF CASH FLOWS
August 2015

	A	B	C	D
	YTD	YTD	YTD	%
	Current Year	Prior Year	Variance	
Cash flows from operating activities				
1 Cash received from customers	-	-	-	0.0%
2 Cash payments to suppliers for goods and services	(14,921,178)	(13,695,396)	(1,225,782)	9.0%
3 Cash payments to employees for services	(7,270,715)	(1,767,437)	(5,503,278)	311.4%
4 Other revenue	4,400,729	2,288,361	2,112,368	92.3%
5 Net cash used in operating activities	(17,791,164)	(13,174,472)	(4,616,692)	35.0%
Cash flows from noncapital financing activities				
6 Proceeds from property taxes	49,373,722	46,383,786	2,989,936	6.4%
7 Proceeds from federal operating and maintenance grants	-	-	-	0.0%
8 Cash received paid to an other government	-	-	-	0.0%
9 Net cash provided by noncapital financing activities	49,373,722	46,383,786	2,989,936	6.4%
Cash flows from capital and related financing activities				
10 Acquisition and construction of capital assets	(6,820,263)	11,547,423	(18,367,686)	-159.1%
11 Principal payments on bonds payable	-	-	-	0.0%
12 Proceeds from bonds payable	-	-	-	0.0%
13 Payments for bond issuance costs	-	-	-	0.0%
14 Payment to refunded bond escrow agent	-	-	-	0.0%
15 Interest paid on bonds payable	-	(973,538)	973,538	-100.0%
16 Proceeds from construction fund, net	1,268	564,242	(562,974)	-99.8%
17 Capital contributed by developers and federal grants	8,734,045	(30,421,995)	39,156,040	-128.7%
18 Net cash used in capital and related financing activities	1,915,050	(19,283,868)	21,198,918	-109.9%
Cash flows from investing activities				
19 Payments for purchase of investments	-	-	-	0.0%
20 Proceeds from maturities of investments	-	-	-	0.0%
21 Investment income	44,835	45,263	(428)	-0.9%
22 Net cash provided by investing activities	44,835	45,263	(428)	-0.9%
23 Net increase (decrease) in cash	33,542,443	13,970,709	19,571,734	140.1%
24 Cash at the beginning of the year	21,858,783	23,264,514	(1,405,731)	-6.0%
25 Cash at the end of the period	55,401,226	37,235,223	18,166,003	48.8%
Reconciliation of cash and restricted cash				
26 Current assets - cash	16,323,743	3,590,118	12,733,625	354.7%
27 Current assets - designated	30,664,261	26,393,042	4,271,219	16.2%
28 Restricted assets -cash	8,413,222	7,252,063	1,161,159	16.0%
29 Total cash	55,401,226	37,235,223	18,166,003	48.8%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
DRAINAGE SYSTEM FUND
STATEMENTS OF CASH FLOWS
August 2015

	A	B	C	D
	YTD	YTD	YTD	
	Current Year	Prior Year	Variance	%
1	(29,029,167)	(28,304,317)	(724,850)	2.6%
2				
3	12,204,928	8,131,616	4,073,312	50.1%
4	362,550	275,788	86,762	31.5%
5	-	-	-	0.0%
6	-	-	-	0.0%
7	-	-	-	0.0%
8	1,461,111	7,849,349	(6,388,238)	-81.4%
9	-	-	-	0.0%
10	(4,437,336)	(2,884,934)	(1,552,402)	53.8%
11	(451,150)	(414,722)	(36,428)	8.8%
12	1,208,612	1,490,274	(281,662)	-18.9%
13	1,208,205	956,988	251,217	26.3%
14	(318,917)	(274,514)	(44,403)	16.2%
15	(17,791,164)	(13,174,472)	(4,616,692)	35.0%

Reconciliation of operating loss to net cash used in operating activities is as follows:

Operating loss

Adjustments to reconcile net operating loss to net cash used in operating activities:

Depreciation

Provision for claims

Provision for (revision) doubtful accounts

Amortization

Change in operating assets and liabilities:

(Increase) decrease in customer and other receivables

Increase in inventory

Increase (decrease) in prepaid expenses and other receivables

Decrease in net pension asset

Increase (decrease) in accounts payable

Increase (decrease) in accrued salaries, due to pension and accrued vacation and sick pay

Increase in net other postretirement benefits liability

Increase (decrease) in net pension obligation

Decrease in other liabilities

Net cash used in operating activities



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: September 29, 2015
From: Harold D. Marchand, Deputy Special Counsel
To: Cedric S. Grant, Executive Director
Re: CEA – City of New Orleans – Coordination of All Repair, etc.

Please place the attached proposed Cooperative Endeavor Agreement between the City and the Board and corresponding resolution on the agenda of the Governance Committee as an action item and on the agendas of both the Strategy and Finance and Administration Committees as a presentation item.

Effective the 20th day of August 2014, the City and the Board entered into a CEA for the coordination and creation of an integrated infrastructure management system. This was a one year agreement with the option for an extension. It is recommended that this agreement be extended for three years effective August 21, 2015 with one option for another three year period.


DEPUTY SPECIAL COUNSEL

HDM:mkt
Att.

cc: Nolan P. Lambert

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**COOPERATIVE ENDEAVOR AGREEMENT WITH CITY OF NEW ORLEANS
FOR THE COORDINATION OF ALL REPAIR, MAINTENANCE,
AND CONSTRUCTION PROJECTS WITH CITY AGENCIES**

WHEREAS, the Sewerage and Water Board and the City of New Orleans desire to enter into a Cooperative Endeavor Agreement (CEA), consistent with the Home Rule Charter of the City of New Orleans, to allow for the coordination of all repair, maintenance, and construction projects with City agencies, including the Department of Public Works, Department of Property Management and the Office of Capital Projects, including Disaster Management/D/CDBG. The intent of the CEA is to minimize the disruption of City streets, sidewalks, and other public spaces and to establish an integrated infrastructure management system; and

WHEREAS, the CEA will require that the City coordinate with the Board the operation and management of the Department of Public Works, Department of Property Management and the Office of Capital Projects, including the Disaster Management/D-CDBG office. The CNO will also coordinate with the Board water management, planning and implementation. The Board will monitor the coordination of the functions and duties of the Department of Public Works, Department of Property Management and the Office of Capital Projects, including the Disaster Management/D-CDBG office. The Board shall regularly report to the Mayor on the coordination of the functions and duties between the CNO and the Board.

NOW THEREFORE, BE IT RESOLVED, that the President Pro Tem, on behalf of the Sewerage and Water Board of New Orleans is hereby authorized to enter into a Cooperative Endeavor Agreement with the City of New Orleans to coordinate all repair, maintenance, and construction projects with the City of New Orleans.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a Resolution adopted at the Regular
Monthly Meeting of said Board, duly called and held,
according to law, on October 21, 2015.

**CEDRIC S. GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

**COOPERATIVE ENDEAVOR AGREEMENT
BETWEEN
THE CITY OF NEW ORLEANS
AND
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

THIS COOPERATIVE ENDEAVOR AGREEMENT ("AGREEMENT"), made and entered into this _____ day of _____, 20__, but made effective as of the _____ day of _____, 20__, by and between the City of New Orleans ("City"), herein represented by Mitchell J. Landrieu, Mayor, and Sewerage and Water Board of New Orleans ("S&WB"), herein represented by Wm. Raymond Manning, its President Pro Tempore, witnesses that,

WHEREAS, consistent with mandate of Section 5-302 of the Home Rule Charter of the City of New Orleans, the Sewerage and Water Board desires to coordinate all its repair, maintenance, and construction projects with City agencies, including the Department of Public Works, Department of Property Management, and the Office of Capital Projects, including the Disaster Management/D-CDBG, in order to minimize disruption of the City's streets, sidewalks, and other public spaces and to establish and integrated infrastructure management system;

WHEREAS, Louisiana Revised Statutes 33:124 and 33:124.1 authorize municipalities and political subdivisions of the State of Louisiana to enter into agreements to combine the use of personnel for the economy of operations and to engage jointly in the construction, acquisition, improvement, maintenance or promotion of any public improvement or project, specifically including activities related to public utilities, sewerage, flood control, drainage, and streets.

WHEREAS, Section 9-314 of the Home Rule Charter of the City of New Orleans, authorizes the City to enter into cooperative endeavors with the state or its political subdivisions or political corporations, with the United States or its agencies, or with any public or private association, corporation, or individual with regard to the procurement and development of immovable property, joint planning and implementation of public works, joint use of facilities, joint research and program implementation activities, joint funding initiatives, and other similar activities in support of public education, community development, housing rehabilitation, economic growth and other public purposes; and

WHEREAS, in public purpose pursuant to Article 9-314 of the Home Rule Charter of the City of New Orleans and consistent with La. R.S. 33:124 and 33:124.1, the City and the S&WB desire to enter into a Cooperative Endeavor Agreement for the coordination and creation of an integrated infrastructure management system.

NOW THEREFORE, the City and S&WB agree as follows (the "Agreement"):

1. CITY OBLIGATIONS:

- a. The City will coordinate the following functions and duties with the S&WB:
 - i. Operations and management of the Department of Public Works, Department of Property Management, and the Office of Capital Projects, including the Disaster

- Management/D-CDBG office;
- ii. Water management planning and implementation;
- b. The City will ensure that any other functions or duties it coordinates with the S&WB will not interfere or conflict with the S&WB functions and duties or the performance thereof.

2. S&WB OBLIGATIONS:

- a. The S&WB will monitor the coordination of the functions and duties listed in Section (1)(a) above and confer with the City regarding same.
- b. The S&WB shall assign the coordination of the duties and functions listed in Section 1(a) above to the S&WB Executive Director.
- c. The Executive Director of the S&WB shall regularly report to the Mayor on the coordination of the functions and duties between the City to the S&WB..

3. TERM: This Agreement shall be effective for one (1) year and shall terminate one (1) year from the effective date written above.

4. TERMS AND CONDITIONS: The City and the S&WB also expressly bind themselves under the Additional Terms and Conditions made a part hereof as "Attachment A."

5. AMENDMENT: This Agreement is not modified except by written amendment executed by the parties hereto.

IN WITNESS WHEREOF the parties hereto have made and executed this Agreement effective the day and year first above written:

CITY OF NEW ORLEANS

BY: _____
MITCHELL J. LANDRIEU, MAYOR

FORM AND LEGALITY APPROVED:

Legal Department

By: _____

Printed Name: _____

SEWERAGE AND WATER BOARD OF NEW ORLEANS

BY: _____
PRESIDENT PRO TEMPORE

**ATTACHMENT A
ADDITIONAL TERMS AND CONDITIONS
TO COOPERATIVE ENDEAVOR AGREEMENT ("Agreement")
BETWEEN**

**THE CITY OF NEW ORLEANS ("City")
AND
SEWERAGE AND WATER BOARD OF NEW ORLEANS ("S&WB")**

ASSIGNABILITY: Neither party shall assign any interest in this Agreement nor transfer any interest in the same without prior written consent of the other party.

JURISDICTION: The City and the S&WB hereby consent and yield to the jurisdiction of the State Civil Courts of the Parish of Orleans, and do hereby formally waive any pleas of jurisdiction.

CHOICE OF LAWS. This Agreement shall be construed and enforced in accordance with the laws of the State of Louisiana, without regard to its conflict of laws provisions.

EXTENSION: This agreement may be extended at the option of the parties, provided that funds are allocated by the Council of the City of New Orleans and the extension of the agreement facilitates the continuity of services provided herein. Any extension is subject to Section 9-314(3) of the Home Rule Charter of the City of New Orleans

TERMINATION FOR CONVENIENCE: The City and S&WB shall each have the right to terminate the Agreement at any time during the term of the Agreement by giving the other party written notice of said intention to terminate at least (30) days before the date of termination.

TERMINATION FOR CAUSE. The City and the S&WB shall each have the right to terminate this Agreement for cause, effective immediately upon the giving of written notice to the other party of its intent to terminate and the reasons therefore. "Cause" includes without limitation any failure to perform any obligation or abide by any condition of this Agreement, the failure of any representation or warranty in this Agreement, the failure or inability to effectively implement an integrated infrastructure management system, or the failure or inability to properly and effectively coordinate with City agencies identified herein. If the S&WB successfully challenges the termination for cause in a court, the termination for cause shall be deemed to be a termination for convenience and shall be effective thirty (30) days from the date that the original written notice of termination for cause without any requirement of further notice.

AUDIT AND OTHER OVERSIGHT: The City and the S&WB will abide by all provisions of City Code § 2-1120, including but not limited to City Code § 2-1120(12), which requires the parties to provide the Office of Inspector General with documents and information as requested. Failure to comply with such requests shall constitute a material breach of the Agreement. The S&WB agrees that it is subject to the jurisdiction of the Orleans Parish Civil District Court for purposes of challenging a subpoena.

ENTIRE AGREEMENT. The Agreement, including all incorporated documents, if any, constitutes the final and complete agreement and understanding between the parties hereto.



"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21ST CENTURY"

Sewerage & Water Board OF NEW ORLEANS

MITCHELL J. LANDRIEU, President
WM. RAYMOND MANNING, President Pro-Tem

625 ST. JOSEPH STREET
NEW ORLEANS, LA 70165 • 504-529-2837 OR 52W-ATER
www.swbno.org

October 19, 2015

Finance and Administration Committee
Sewerage and Water Board of New Orleans
New Orleans, Louisiana

Dear Directors:

Subject: Proposed Cooperative Endeavor Agreement between the Greater New Orleans Foundation and Sewerage and Water Board of New Orleans

Greater New Orleans Foundation embarked on the Urban Water Series Phase I through a series of five workshops that brought together national experts on green infrastructure and stormwater management to share their expertise and experiences with various New Orleans stakeholders. The Board's leadership and employees were present during these workshops. To build on and deepen the insights from Urban Water Series Phase I, GNOF followed up with Urban Water Series Phase 2 when it brought 25 leaders from the city government and nonprofit sectors to Austin, Milwaukee, and Philadelphia - cities that successfully scaled green infrastructure and stormwater management strategies. GNOF then convened a number of follow-up meetings to come to concrete actions and ideas that could be applied in New Orleans. The goals and strategies for the next phase of work come naturally out of the learnings and outputs from these two phases.

GNOF wants to support the efforts of four key entities in the city that they believe are key to solving our urban water issues: the Board, the Greater New Orleans Water Collaborative, the City of New Orleans, and schools that are open to teaching water management. Through GNOF's work and partnerships with these four entities, GNOF wishes to achieve the following results:

1. Greater public awareness of (a) the issues around urban water, (b) the potential solutions available in green infrastructure and stormwater management strategies, and (c) their possible role in helping solve these issues as stewards of their environment.
2. Increased capacity within and collaboration among the Board and local government agencies around better stormwater management and increased green infrastructure.
3. Increased capacity within and collaboration among the Board and the Water Collaborative and other local non-governmental organizations around better stormwater management and increased green infrastructure.

4. A sustained, high-level conversation around sustainability in New Orleans and inclusion of green infrastructure and other sustainability elements in the New Orleans resiliency plan.

The Greater New Orleans Foundation and Sewerage and Water Board of New Orleans intend to create a partnership to support the Board's leadership to allow for a more comprehensive green infrastructure and stormwater management strategy and to build communications and public education capacity in the area of Green Infrastructure and Storm Water Management through implementing a public communications campaign. Staff recommends adoption of the attached cooperative endeavor agreement.



Robert K. Miller
Deputy Director

**COOPERATIVE ENDEAVOR AGREEMENT BETWEEN THE GREATER NEW ORLEANS
FOUNDATION AND SEWERAGE AND WATER BOARD OF NEW ORLEANS**

WHEREAS, the Greater New Orleans Foundation ("GNOF") would like to forge a partnership with the Sewerage & Water Board of New Orleans ("the Board") to drive green infrastructure and stormwater management in New Orleans, which will complement the city's world-class gray infrastructure and increase the sustainability and resiliency of New Orleans; and

WHEREAS, GNOF and the Board intend to work to support the Board's leadership in advancing a Board mission that will allow for the inclusion of a more comprehensive green infrastructure and stormwater management strategy; and

WHEREAS, GNOF and the Board intend to further build the Board's communications/public education capacity in the area of Green Infrastructure and Storm Water Management through implementing a public communications campaign;

NOW, THEREFORE BE IT RESOLVED, by the Sewerage and Water Board of New Orleans that the Executive Director is hereby authorized to enter into and accepting this collaborative Agreement with the Greater New Orleans Foundation which shall commence on this date and shall continue for a period of two years.

I, Cedric S. Grant, Executive Director, Sewerage and Water Board of New Orleans, do hereby certify that the above and foregoing is a true and correct copy of the resolution adopted at a Regular Monthly Meeting of said Board, duly called and held, according to law on October 21, 2015.

**CEDRIC S. GRANT
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

COOPERATIVE ENDEAVOR AGREEMENT

BETWEEN

THE

GREATER NEW ORLEANS FOUNDATION

AND

SEWERAGE AND WATER BOARD OF NEW ORLEANS

THIS COOPERATIVE ENDEAVOR AGREEMENT ("Agreement") is made and entered into by and between the **GREATER NEW ORLEANS FOUNDATION** (hereinafter referred to as "GNOF"), herein represented by **DR. ALBERT RUESGA, DIRECTOR OF ENVIRONMENTAL AND REGIONAL INITIATIVES**, and the **SEWERAGE AND WATER BOARD OF NEW ORLEANS** (hereinafter referred to as Board), herein represented by **CEDRIC S. GRANT, EXECUTIVE DIRECTOR**, hereunto duly authorized, to be effective as of the _____ day of _____ 2015.

RECITALS

WHEREAS, GNOF would like to forge a partnership with the Board to drive green infrastructure and stormwater management in New Orleans, which will complement the city's world-class gray infrastructure and increase the sustainability and resiliency of New Orleans; and

WHEREAS, just like the Board, GNOF has been concerned about water issues for some time now. The primary focus of GNOF's environmental giving over the past five years has been around these water issues. In 2010 GNOF, in partnership with the Idea Village, founded the Water Challenge, an initiative that helped accelerate entrepreneurial solutions to our region's water issues; and

WHEREAS, given the Greater New Orleans area's issues with soil subsidence and localized flooding, GNOF first embarked on the Urban Water Series Phase I during the summer of 2013, through a series of five workshops that brought together national experts on green infrastructure and stormwater management to share their expertise and experiences with various New Orleans stakeholders. The Board's leadership and employees were present during these workshops; and

WHEREAS, to build on and deepen the insights from Urban Water Series Phase I, GNOF followed up in the fall of 2014 with Urban Water Series Phase 2 when it brought 25 leaders from the city government and nonprofit sectors to Austin, Milwaukee, and Philadelphia - cities that successfully scaled green infrastructure and stormwater management strategies . GNOF then convened a number of follow-up meetings to come to concrete actions and ideas that could be applied in New Orleans. Its goals and strategies for the next phase of work come

naturally out of the learnings and outputs from these two phases; and

WHEREAS, the Board was a great partner for Urban Water Series Phase 2. The Board's leadership participated in the planning phase for the trips and paid for four employees and a board member to come on these trips. This showed the agencies' commitment to learning about green infrastructure and stormwater management strategies in other cities; and

WHEREAS, GNOF wishes to contribute to the creation of Greater New Orleans' sustainable future. After being inspired by the three Urban Water Series 2 trips and processing learnings at the follow-up meetings with local stakeholders, GNOF would like to support the efforts of four key entities in the city that GNOF believes are key players in solving our urban water issues. These include the Board, the GNO Water Collaborative, the City of New Orleans, and schools that are open to teaching water management; and

WHEREAS, through GNOF's work and partnerships with these four entities, GNOF wishes to achieve the following results:

- 1) Greater public awareness of (a) the issues around urban water, (b) the potential solutions available in green infrastructure and stormwater management strategies, and (c) their possible role in helping solve these issues as stewards of their environment.
- 2) Increased capacity within and collaboration among the SWBNO and local government agencies around better stormwater management and increased green infrastructure.
- 3) Increased capacity within and collaboration among the SWBNO and the GNO Water Collaborative and other local non-governmental organizations around better stormwater management and increased green infrastructure.
- 4) A sustained, high-level conversation around sustainability in New Orleans and inclusion of green infrastructure and other sustainability elements in the New Orleans resiliency plan.

NOW, THEREFORE, GNOF and the Board, for the considerations and under the conditions set forth herein do hereby agree as follows:

ARTICLE I. SCOPE OF SERVICES

GNOF will work collaboratively with the Board and perform the following:

Objective #1: Support the Board's leadership in advancing a Board mission that will allow for the inclusion of a more comprehensive green infrastructure and stormwater management strategy.

Elements:

- Provide information from cities visited to aid exploration of revenue streams to support green infrastructure and stormwater management

- As called for, convene various groups critical to the acceptance of an additional revenue stream to fund stormwater management in order to educate them on the case for why additional revenue is necessary (e.g. business community, neighborhoods, etc.)
- Help turn learnings from Urban Water Series 2 trips to actionable steps for the Board

GNOF Roles:

- Liaise with other cities regarding stormwater revenue policies and practices
- Serve as a convener across sectors
- Fund at least two convenings to educate critical groups about why additional revenue is necessary
- Perform other roles that both GNOF and the Board decide to take on throughout the partnership

Board Roles:

1. Provide a point person in leadership who will work with GNOF
2. Relevant employees will give time for at least two meetings to turn learnings from the trips into actionable steps
3. If convenings are called for, help GNOF plan the structure for education convenings about revenue requirements for the stormwater system
4. Perform other roles that both GNOF and the Board decide to take on throughout the partnership

Objective #2: Help further build the Board's communications/public education capacity in the area of GI & SWM through implementing a public communications campaign.

Elements:

- Hire a firm to perform market research that will help tailor the messaging for the public communications campaign. Based on the market research results, the Board and GNOF will issue a request for proposal for the implementation of a public communications campaign, hear pitches from select candidate firms, then choose a marketing/communications firm that will implement such campaign
- Oversee execution of a public communications campaign about the value of green infrastructure and storm water management and the stewardship role we can all play starting in 2016
- Amplify the work that the Board is doing around green infrastructure and stormwater management
- Explore the introduction of a rain barrel program and other storm water management steps for homeowners

GNOF Roles:

- Share communications expertise and advice
- Help manage communications campaign process
- Provide up to \$50,000 in funding for market research

- Initially provide \$50,000 in funding for the public communications campaign execution. Once it is known how much implementation will cost, GNOF can determine the additional amount of funding that it can commit for the implementation
- Help raise supplementary funding for communications campaign implementation
- Perform other roles that both GNOF and the Board decide to take on throughout the partnership

Board Roles:

1. Lead communications campaign process
2. Executive team and the stormwater team will attend 1-2 meetings where the parties will plan the objectives of the communications campaign and market research
3. Assign a point person/people who will help monitor and manage the market research firm as they perform market research and the communications/marketing firm as they implement the communications campaign
4. Provide at least \$50,000 in funding, subject to availability, for the implementation of the communications campaign
5. Perform other roles that both GNOF and the Board decide to take on throughout the partnership

At least every six months, the leads for the partnership from each organization will meet to assess the progress of the partnership, identify priority action areas, and determine areas for improvement (if any).

ARTICLE II. TERM

This agreement shall commence on the date first written above and shall continue for a period of two years.

ARTICLE III. INDEMNIFICATION

Section 1. Reciprocal Duties in Indemnification. To the fullest extent permitted by law, the parties agree to protect, defend, indemnify and hold harmless one another, their agents, elected officials and employees (collectively, the "Indemnified Parties") from and against all claims, actions, liabilities, losses (including, without limitation, economic losses) and costs, arising out of or related to (a) any actual or alleged act or omission in the performance of the Services by one another or any contractor or (b) any act outside the scope of the Services by either party or any contractor.

ARTICLE IV. GOVERNING LAW, JURISDICTION AND VENUE

Section 1. Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the State of Louisiana, excepting its conflict of laws provisions.

Section 2. Exclusive Jurisdiction and Venue. For all claims arising out of or related to this Agreement, the parties hereby consent and yield to the exclusive jurisdiction and venue of the Civil District Court for the Parish of Orleans.

ARTICLE V. RETENTION, ACCESS AND OWNERSHIP OF RECORDS

Section 1. Retention. The parties agree to keep all such business records related to, or arising out of, this Agreement as would be kept by a reasonably prudent practitioner of the parties' profession for a period of five (5) years after the termination of this Agreement. All accounting records shall be maintained in accordance with generally accepted principles and practices.

ARTICLE VI. TERMINATION

Section 1. Termination for Cause. The parties shall each have the right to terminate this Agreement for cause, effective immediately upon the giving of written notice to the other party of its intent to terminate and the reasons therefore.

If the termination for cause is subsequently challenged in a court of law and if the challenging party prevails, the termination for cause shall be deemed to be a termination for convenience and shall be effective thirty (30) days from the date that the original written notice of termination for cause was given to the challenging party and no further notice shall be required.

Section 2. Termination for Convenience. The parties shall each have the right to terminate this Agreement without cause by giving the other party written notice of its intent to terminate at least thirty (30) days prior to the date of termination.

Section 3. Survival of Certain Provisions. All representations and warranties and all responsibilities regarding record retention, access and ownership, cooperation with OIG investigations, indemnification and payment for services rendered shall survive the termination of this Agreement and continue in full force and effect.

ARTICLE VII. NOTICE

Section 1. Any notice, demand, communication or request required or permitted

hereunder shall be in writing and delivered in person or by certified mail, return receipt requested as follows:

If to Board: Cedric S. Grant, Executive Director
625 St. Joseph Street, Room 233
New Orleans, Louisiana 70165

If to GNOF: Dr. Albert Ruesga
Greater New Orleans Foundation
1055 St. Charles Avenue, Suite 100
New Orleans, LA 70130

Section 2. Notices shall be effective when received by each of the above-referenced individuals at the addresses specified above. Each party shall be responsible for notifying the other in writing that references this Agreement of any changes in the respective addresses set forth above.

Section 3. Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of GNOF and Board.

ARTICLE VIII. GENERAL PROVISIONS

Section 1. No Assignment Without Consent. This Agreement is personal to each of the parties hereto, and neither party may assign or delegate any rights or obligations hereunder without first obtaining the written consent of the other party.

Section 2. Audit and Other Oversight. It is agreed that GNOF will abide by all provisions of City Code §2-1120, including but not limited to City Code §2-1120(12), which requires GNOF to provide the Office of Inspector General with documents and information as requested. Failure to comply with such requests shall constitute a material breach of the contract. In signing this contract, GNOF agrees that it is subject to the jurisdiction of the Orleans Parish Civil District Court for purposes of challenging a subpoena.

Section 3. Nonwaiver. The failure of either party to insist upon strict compliance with any provision of this Agreement, to enforce any right or to seek any remedy upon discovery of any default or breach of the other party at such time as the initial discovery of the existence of such noncompliance, right, default or breach shall not affect, nor constitute a waiver of, any party's right to insist upon such compliance, exercise such right or seek such remedy with respect to that default or breach or any prior, contemporaneous or subsequent default or breach.

Section 4. Severability. The parties hereto intend all provisions of this Agreement to be enforced to the fullest extent permitted by law.

Accordingly, should a court of competent jurisdiction find any provision to be unenforceable as written, the parties intend and desire that the court should reform the provision so that it is enforceable to the maximum extent permitted by law. If, however, the court should find such provision to be illegal and not subject to reformation, such provision shall be fully severable.

In such event, this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision was never a part hereof, and the remaining provisions of this Agreement shall remain in full force and effect.

Section 5. Rules of Construction. The headings and captions of this Agreement are provided for convenience only and are not intended to have effect in the construction or interpretation of this Agreement.

Whenever herein the singular number is used, the same shall include the plural, where appropriate and neutral words and words of any gender shall include the neutral and other gender, where appropriate. Neither this Agreement nor any uncertainty or ambiguity herein shall be construed or resolved in favor of or against GNOF on the basis of which party drafted the uncertain or ambiguous language. On the contrary, this Agreement has been reviewed by all parties and shall be construed and interpreted according to the ordinary meaning of the words used so as to fairly accomplish the purposes and intentions of all parties hereto.

Section 6. Amendment. No amendment of or modification to this Agreement shall be valid unless and until executed in writing by the duly authorized representatives of both parties to this Agreement.

Section 7. No Third-Party Beneficiaries. This Agreement is entered into for the exclusive benefit of the parties, and the parties expressly disclaim any intent to benefit anyone not a party hereto.

Section 8. Remedies Cumulative. No remedy set forth in this Agreement or otherwise conferred upon or reserved to any party shall be considered exclusive of any other remedy available to a party. Rather, each remedy shall be deemed distinct, separate and cumulative and each may be exercised from time to time as often as the occasion may arise or as may be deemed expedient.

Section 9. Complete Agreement. GNOF specifically acknowledges that in entering into and accepting this Agreement, GNOF relies solely upon the representations and agreements contained in this Agreement and no others.

This Agreement supersedes and replaces any and all prior agreements, negotiations and discussions between the parties hereto with regard to the terms, obligations and conditions herein.

THE PARTIES HERETO have signed this Agreement as to be effective on the first date written.

SEWERAGE AND WATER BOARD OF NEW ORLEANS

BY: _____
CEDRIC S. GRANT, EXECUTIVE DIRECTOR

FORM AND LEGALITY APPROVED:

Legal Department

By: _____

Printed Name: _____

GREATER NEW ORLEANS FOUNDATION

BY: _____
DR. ALBERT RUESGA, PRESIDENT AND CEO

CORPORATE TAX I.D.



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: October 12, 2015
From: Harold D. Marchand, Deputy Special Counsel
To: Cedric S. Grant, Executive Director
Re: CEA – City of New Orleans – Permanent Pavement Restoration of Utility Cuts

Please place the attached proposed Cooperative Endeavor Agreement between the City of New Orleans and the Sewerage and Water Board of New Orleans and corresponding resolution on the agenda of the Governance Committee as an action item and on the agendas of both the Strategy and the Finance and Administration Committees as a presentation item.

The City and the Board wish to enter into an agreement whereby the City will perform permanent pavement restoration of utility cuts to be made by the Board.


DEPUTY SPECIAL COUNSEL

Att.

cc: Nolan P. Lambert

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**COOPERATIVE ENDEAVOR AGREEMENT WITH CITY OF NEW ORLEANS
FOR THE PERMANENT PAVEMENT RESTORATION OF UTILITY CUTS**

WHEREAS, the Sewerage and Water Board and the City of New Orleans desire to enter into a Cooperative Endeavor Agreement (CEA), consistent with the Home Rule Charter of the City of New Orleans, to allow the City of New Orleans to perform permanent paving restoration of utility cuts to be made by the Sewerage and Water Board of New Orleans. The intent of the CEA is to accomplish a valued public purpose of improving the restoration of underground utilities and pavement by enhancing the collaboration between the parties; and

WHEREAS, the CEA will require that the City coordinate with the Board the removal of the backfill, temporary pavement, and/or temporary covering placed by the Board as part of its repair, and any additional saw cutting of pavement and subsequent removal of construction debris and/or materials, preparation of the base course and adjacent pavement in accordance with applicable Department of Public Works' general specifications, the placement of permanent pavement, final inspection, and removal of any remaining traffic control measures.

NOW THEREFORE, BE IT RESOLVED, that the President Pro Tem, on behalf of the Sewerage and Water Board of New Orleans is hereby authorized to enter into a Cooperative Endeavor Agreement with the City of New Orleans for the permanent pavement restoration of utility cuts.

I, Cedric S. Grant, Executive Director,
Sewerage and Water Board of New Orleans, do hereby
certify that the above and foregoing is a true and
correct copy of a Resolution adopted at the Regular
Monthly Meeting of said Board, duly called and held,
according to law, on October 21, 2015.

**CEDRIC S. GRANT, EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS**

COOPERATIVE ENDEAVOR AGREEMENT

BETWEEN

THE CITY OF NEW ORLEANS

AND

THE SEWERAGE AND WATER BOARD OF NEW ORLEANS

THIS COOPERATIVE ENDEAVOR AGREEMENT (the “**Agreement**”) is made and entered into on this _____ day of _____, 2015 (the “**Effective Date**”), by and between the **CITY OF NEW ORLEANS**, represented by **MITCHELL J. LANDRIEU, MAYOR** (“**City**”), and the **SEWERAGE AND WATER BOARD OF NEW ORLEANS**, represented by **CEDRIC S. GRANT, EXECUTIVE DIRECTOR** (“**SWBNO**”) (the City and SWBNO sometimes collectively referred to as the “**Parties**”).

WHEREAS, the City is a political subdivision organized under the law of the State of Louisiana;

WHEREAS, SWBNO is a political corporation organized under the laws of the State of Louisiana;

WHEREAS, pursuant to Article 7, Section 14(C) of the Louisiana Constitution of 1974, and related statutes, and Section 9-314 of the Home Rule Charter of the City of New Orleans, the City may enter into cooperative endeavors with the State of Louisiana, its political subdivisions and corporations, the United States and its agencies, and any public or private corporation, association, or individual with regard to cooperative financing and other economic development activities, the procurement and development of immovable property, joint planning and implementation of public works, the joint use of facilities, joint research and program implementation activities, joint funding initiatives, and other similar activities in support of public education, community development, housing rehabilitation, economic growth, and other public purposes;

WHEREAS, the City’s Department of Public Works (“**DPW**”) provides for the design, construction, paving, maintenance, and marking of streets, bridges, and related structures and approaches;

WHEREAS, in particular, DPW supervises, regulates, and controls installations in, above, and under streets, and therefore is in a unique position to provide “Permanent Pavement Restoration” of same in an efficient and cost effective manner;

WHEREAS, SWBNO has authority over the construction of, control, maintenance, and operation all underground work necessary or incidental to the sewerage and water systems and over major drainage infrastructure;

WHEREAS, SWBNO is responsible for construction of, control, maintenance, and operation of the public water system, public sewerage system, and major drainage system of the City;

WHEREAS, on July 1, 1992, the Parties entered into an agreement to define their

respective roles and responsibilities with regard to the public drainage, sewerage and water systems (the “1992 Agreement”); and

WHEREAS, the Parties now desire to accomplish a valued public purpose of improving the restoration of underground utilities and pavement by enhancing the collaboration between the Parties.

NOW THEREFORE, the City and SWBNO, each having the authority to do so, agree as follows:

ARTICLE I - DEFINITIONS

A. “Underground SWBNO Utilities” mean all pipes, connections, valves, manholes, electrical conduits, and related infrastructure buried below the surface of the public right of way which are under the authority and control of the SWBNO.

B. “Repair” or “Repairs” mean the saw cutting and subsequent demolition of pavement, excavation to access the damaged underground utilities, replacement, rehabilitation, and/or reconstruction of the underground utilities, the removal of any unsuitable and/or excess materials, placement of approved, compacted material in appropriate lifts to backfill any trench or other excavation required as part of the repair.

C. “Temporary Pavement Restoration” means the placement of DPW-approved compacted fill covering up to the surface of the roadway and the installation of traffic control measures subsequent to the permanent pavement restoration.

D. “Permanent Pavement Restoration” means the removal of temporary pavement restoration by SWBNO as part of their repair, any additional saw cutting of pavement and subsequent removal of construction debris and/or materials, preparation of the base course and adjacent, in situ pavement in accordance with applicable DPW’s general specifications, the placement of permanent pavement, final inspection, and removal of any remaining traffic control measures.

ARTICLE II - OBLIGATIONS OF THE PARTIES

A. SWBNO:

1. Agrees to maintain and repair Underground SWBNO Utilities, as referenced above.
2. Shall notify DPW within seventy-two (72) hours, when the repair to the Underground SWBNO Utilities is completed on the weekend or Holiday, or within twenty-four (24) hours when the repair to the Underground SWBNO Utilities is completed on a weekday, thus informing DPW of the need for the “Permanent Pavement Restoration”.
 - a. At a minimum, this notification will include the location of the repairs, the type of repairs, the approximate size of the cuts, and generally the type of Permanent Pavement Restoration that may be required.
3. Agrees to complete Repairs to Underground SWBNO Utilities in accordance with the latest edition of all applicable engineering standards.
4. Agrees to complete repairs to both Underground SWBNO Utilities and underground utility lines maintained by DPW in instances where the SWBNO, while performing repairs to Underground SWBNO Utilities in the public right of way, notices the need

for repairs to utility lines maintained by DPW.

5. Will be responsible for maintenance of utility service cut site to include traffic control measures for a period of thirty (30) calendar days after notification of the completed repairs as set forth in Article II A(2) above.
6. Shall ensure that the backfill placed as part of the Repair meets all applicable compaction, gradation, and moisture content requirements as contained in the latest edition of the DPW General Specifications for Street Paving.
7. Shall provide results from tests conducted by a certified materials testing laboratory, upon request, to DPW to confirm the backfill in place meets all applicable requirements prior to Permanent Pavement Restoration. If such backfill does not meet all applicable requirements, the repair will be considered incomplete and will be redone by SWBNO.
8. Agrees to submit an invoice to the DPW on a routine basis as agreed to in advance by the Parties for all costs associated with the work performed on DPW's behalf.
 - a. Each invoice submitted shall include, at a minimum, the locations of all the repairs to the underground utility lines maintained by DPW which were performed by SWBNO on DPW's behalf for which reimbursement is sought, itemizing with specificity the costs associated with each repair.
9. May suspend work performed on DPW's behalf if payment is not received within sixty (60) days or funding is not readily available to cover the anticipated cost of work.
10. Agrees to reimburse DPW for the costs associated with Permanent Pavement Restoration performed on SWBNO's behalf within thirty (30) days after the receipt of an invoice from DPW.
 - a. These costs may include but not limited to geotechnical testing, field inspection, program management, and construction services at rates agreed to in advance by the Parties.
 - b. SWBNO agrees to maintain a minimum balance in the City's account to cover at least thirty (30) days of anticipated program costs in an amount as agreed to in advance by the Parties.

B. DPW:

1. May conduct material testing of the backfill placed in lieu of or in addition to any material testing conducted by SWBNO.
2. May inspect the Repairs as they are completed by SWBNO and the site once Repairs are completed.
3. Will be responsible for maintenance of utility service cut site to include traffic control measures beginning thirty (30) calendar days after notification of the completed repairs as set forth in Article II A(2) above.
4. Agrees to use good faith efforts to complete Permanent Pavement Restoration within thirty (30) days of notification that the Underground SWBNO Utilities repairs are

completed.

5. Shall notify SWBNO within seventy-two (72) hours after Permanent Pavement Restoration is completed.
6. In cases where an additional leak and/or damage to Underground SWBNO Utilities is detected prior to or during Permanent Pavement Restoration, shall stop work and notify SWBNO within twenty-four (24) hours so that additional Repairs can be completed.
7. Shall be responsible for maintenance of the Permanent Pavement Restoration, except when a repair is required.
8. Agrees to submit an invoice to the SWBNO on a routine basis as agreed to in advance by the Parties for all costs associated with the work performed on SWBNO's behalf.
 - a. Each invoice submitted shall include, at a minimum, the locations of all Permanent Pavement Restoration performed by DPW for which reimbursement is sought, itemizing with specificity the costs associated with each restoration.
9. Agrees to establish an account and receive adequate spending authority from the City Council to receive reimbursement payments from SWBNO and pay for program expenses incurred by DPW.
10. May suspend work performed on SWBNO's behalf if payment is not received in sixty (60) days or funding is not readily available to cover the anticipated cost of work.
11. Agrees to reimburse SWBNO for the costs associated with the repairs to the underground utility lines maintained by DPW which were performed by SWBNO on DPW's behalf within thirty (30) days after the receipt of an invoice from SWBNO.
 - a. These costs may include but not limited to geotechnical testing, field inspection, program management, and construction services at rates agreed to in advance by the Parties.

ARTICLE III – IMPLEMENTATION

The Parties will develop and agree to an implementation plan within thirty (30) days after this Agreement is executed. This implementation plan will include a timeline for full, City-wide implementation of the Agreement, an invoicing procedure, minimum account balance, staffing plan, initial account deposit, and acquisition plan for all required contractual services.

ARTICLE IV - DURATION

This Agreement will be effective for one (1) year from the Effective Date.

ARTICLE V – TERMINATION FOR CONVENIENCE

Either party may terminate this Agreement at any time during the term of the Agreement by giving the other party written notice of its intention to terminate at least thirty (30) days before the intended date of termination.

ARTICLE VI - INDEMNITY

To the fullest extent permitted by law, the Parties agree to protect, defend, indemnify and hold harmless one another, their agents, elected officials and employees from and against all claims, actions, liabilities, losses (including, without limitation, economic losses) and costs, arising out of or related to (a) any actual or alleged act or omission in the performance of the obligations by one another or any contractor or (b) any act outside the scope of the obligations by either party or any contractor under this Agreement.

ARTICLE VII – INSURANCE

The City and SWBNO shall have the option to maintain self-insurance or to procure at its own expense and maintain insurance policies in effect at all times during the term of this Agreement.

ARTICLE VIII - NON-DISCRIMINATION

A. Non-Discrimination in Employment. With regard to any hiring or employment decision made in connection with the performance of this Agreement, including without limitation employment, upgrading, demotion, transfer, recruitment, recruitment advertising, layoff, termination, rates of pay or other compensation, and selection for training including apprenticeship, SWBNO:

1. Will not discriminate or retaliate, in fact or in perception, against any employee or person seeking employment on the basis of race, color, national origin, religion, creed, culture, ancestral history, age, gender, sexual orientation, gender identity, marital or domestic partner status, physical or mental disability, or AIDS- or HIV-status;
2. Will take affirmative action to ensure compliance with this section;
3. Will include statements in all solicitations or advertisements for employment that all qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, creed, culture, ancestral history, age, gender, sexual orientation, gender identity, marital or domestic partner status, physical or mental disability, or AIDS- or HIV-status;
4. Will post notices containing the provisions of this section in conspicuous places available to employees and persons seeking employment.

B. Non-Discrimination. In the performance of this Agreement, SWBNO:

1. Will not discriminate or retaliate, in fact or in perception, on the basis of race, color, national origin, religion, creed, culture, ancestral history, age, gender, sexual orientation, gender identity, marital or domestic partner status, physical or mental disability, or AIDS- or HIV-status against: any employee of the City; any employee of any person working on behalf of the City; or any person seeking accommodation, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations operated by SWBNO.
2. Will comply with and abide all federal, state, and local laws relating to non-discrimination, including without limitation Title VII of the Civil Rights Act of 1964, as amended, Section V of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990.

C. Subcontracts. SWBNO will incorporate the provisions of this Article by reference into all

subcontracts relating to the performance of this Agreement.

ARTICLE IX - NOTICES

A. **In General.** Except for any routine communication, any notice, demand, communication, or request required or permitted under this Agreement will be given in writing and delivered in person or by certified mail, return receipt requested as follows:

1. To the City:

Director
City of New Orleans
Department of Public Works
1300 Perdido Street, Suite 6W03
New Orleans, LA 70112

&

City Attorney
City of New Orleans
1300 Perdido Street, Suite 5E03
New Orleans, LA 70112

2. To SWBNO:

Executive Director
Sewerage & Water Board of New Orleans
625 St. Joseph St.
New Orleans, La 70165

B. **Effectiveness.** Notices are effective when received, except any notice that is not received due to the intended recipient's refusal or avoidance of delivery is deemed received as of the date of the first attempted delivery.

C. **Changes.** Each party is responsible for notifying the other in writing that references this Agreement of any changes in its address(es) set forth above.

ARTICLE X - MISCELLANEOUS PROVISIONS

A. **Ownership of Documents.** All data collected and all products of work prepared, created, or modified by the City in the performance this Agreement, including, without limitation, any and all notes, tables, graphs, reports, files, computer programs, source code, documents, records, disks, original drawings, or other such material, regardless of form and whether finished or unfinished, (collectively, "**Work Product**") are the exclusive property of the City, and no reproduction of any portions of such Work Product may be made in any form without the express written consent of the City. The City shall have all right, title, and interest in all Work Product, including without limitation the right to secure and maintain the copyright, trademark, and/or patent of Work Product in the name of the City. The City may use or distribute all Work Product for any purpose without the consent of and for no additional consideration owing to SWBNO.

B. **Jurisdiction.** SWBNO consents and yields to the jurisdiction of the State Civil Courts of the Parish of Orleans and formally waives any pleas of jurisdiction on account of the residence elsewhere.

C. Governing Law. Any dispute arising from or relating to this Agreement or the performance of any obligations under this Agreement shall be resolved in accordance with the laws of the State of Louisiana.

D. Rules of Construction. This Agreement has been reviewed by all parties and shall be construed and interpreted according to the ordinary meaning of the words used so as to fairly accomplish the purposes and intentions of all parties. The headings and captions of this Agreement are provided for convenience only and are not intended to have effect in the construction or interpretation of this Agreement. The singular number includes the plural, where appropriate. Neither this Agreement nor any uncertainty or ambiguity herein shall be construed or resolved in favor of or against either party on the basis of which party drafted the language.

E. Severability. The Parties intend all provisions of this Agreement to be enforced to the fullest extent permitted by law. Accordingly, if a court of competent jurisdiction finds any provision to be unenforceable as written, the court should reform the provision so that it is enforceable to the maximum extent permitted by law. If a court finds any provision is not subject to reformation, that provision shall be fully severable and the remaining provisions of this Agreement shall remain in full force and effect and shall be construed and enforced as if such illegal, invalid, or unenforceable provision was never included, and the remaining provisions of this Agreement shall remain in full force and effect.

F. Survival of Provisions. All representations and warranties and all responsibilities regarding record retention, access, and ownership, cooperation with Office of Inspector General investigations, and indemnification shall survive the termination of this Agreement and continue in full force and effect.

G. No Third-Party Beneficiaries. This Agreement is entered into for the exclusive benefit of the City and SWBNO, and the parties expressly disclaim any intent to benefit any person that is not a party to this Agreement.

H. Non-Waiver. The failure of either party to insist upon strict compliance with any provision of this Agreement, to enforce any right, or to seek any remedy upon discovery of any default or breach of the other party shall not affect or be deemed a waiver of any party's right to insist upon compliance with the terms and conditions of the Agreement, to exercise any rights, or to seek any available remedy with respect to any default, breach, or defective performance.

I. Agreement Binding. This Agreement is not assignable by either party unless authorized by a validly executed amendment.

J. Modifications. This Agreement shall not be modified except by written amendment executed by authorized representatives of the parties.

K. Voluntary Execution. SWBNO has read and fully understands the terms, covenants and conditions set forth in this Agreement and is executing the same willingly and voluntarily of its own volition.

L. Complete Agreement. This Agreement supersedes and replaces any and all prior agreements, negotiations, and discussions between the parties with regard to the terms, obligations, and conditions of this Agreement.

IN WITNESS WHEREOF, the City and SWBNO, through their duly authorized representatives, execute this Agreement.

CITY OF NEW ORLEANS

BY: _____
MITCHELL J. LANDRIEU, MAYOR

FORM AND LEGALITY APPROVED:
Law Department

By: _____

Printed Name: _____

**SEWERAGE AND WATER BOARD OF NEW
ORLEANS**

BY: _____
CEDRIC S. GRANT, EXECUTIVE DIRECTOR



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: October 14, 2015

To: Robert K. Miller, Deputy Director

From: Tiffany Carter, Director, Economically Disadvantaged Business Program (EDBP)

Re: EDBP Contract Summary – September 2015

The following contract submission(s) were approved for EDBP Bid Recommendations with DBE Participation:

1) Contract #8144 Re-paving Open Cuts in Streets, Driveways, and Sidewalks Resulting from the Repair to the Sewerage & Water Board of New Orleans' Underground Utilities

Apparent lowest bidder: Wallace C. Drennan, Inc. \$1,666,300.00
Thirty-six percent (36%) SLDBE participation was requested

2) Request for Proposal for preparation of the Board's Report on Operations for 2015

Apparent lowest bidder: Black & Veatch Corporation \$116,000.00
Thirty-Five percent (35%) SLDBE participation was requested

The Contract Review Committee, held on September 15, 2015, recommended the following Open Market Contracts

Three (3) One year contract, no renewal options contracts

1. Contract #1377 **Water Hammer Hazard Mitigation Program: Claiborne Pump Station and Off-Site Improvements**
2. Contract #3796 **Replacing two 16" VTSG Non-clog Sewage Pumps at Blvd 'X' Sewage Pumping Station**
5. Contract #30202 **Repair of the Sewer, Water, and Drainage Infrastructure Systems within the Federal City Complex**

Staff Contract Review Committee, held on September 15, 2015, recommended the following Open Market and Renewal Contract(s):

Open Market Contracts

1. RFP for Third Party Claims Administrator Services for Worker Compensation
2. Manufacture and Delivery of New Sludge Dryer for the East Bank Wastewater Treatment Plant
3. Manufacture and Delivery of New Incinerator Emission Control Equipment for the East Bank Wastewater Treatment Plant
4. Furnishing and Delivering Small Fleet Trucks
5. Furnishing Sodium Hypochlorite to the Carrollton and Algiers Plants
6. Furnishing Anhydrous Ammonia
7. Furnishing Liquid Polyphosphate

Renewal Contract

8. Furnishing Auditing Services for the year ending December 31, 2015

Final Acceptance Contract(s) with SLDBE Participation

Contract #3661 – Modifications to East Bank Wastewater Treatment Plant Flood Wall Protection System

The Prime Contractor is Cajun Contractor. The SLDBE participation goal is 36%. The SLDBE participation achieved is 36.84%.

**Sewerage & Water Board of New Orleans Contracts with SLDBE Participation Summary:
January –September 2015**

Report attached

Contract #8144 Re-paving Open Cuts in Streets, Driveways, and Sidewalks Resulting from the Repair to the Sewerage & Water Board of New Orleans' Underground Utilities

On Friday, September 18, 2015 four (4) bids were received for subject contract. The bid totals are as follows:

Wallace C. Drennan, Inc.	\$1,666,300.00
Fleming Construction Co., LLC	\$1,747,250.00
Roubion Roads & Streets, LLC	\$1,946,700.00
Hard Rock Construction Co., LLC	\$2,643,350.00

Thirty-six percent (36%) SLDBE participation was requested on this contract.

The bid of the apparent lowest bidder, Wallace C. Drennan, Inc., submitted **C&M Construction Group, Inc.** (eligible certified SLDBE) to perform Municipal & Public Works Construction, Fencing, and Concrete and Asphalt Patching; **\$600,100.00 – 36.01%**

Correspondence from SLBDE on their own letterhead reaffirming negotiated terms was provided.

The bid of the apparent second lowest bidder, Fleming Construction Co., LLC, submitted the following subcontractors:

F.P. Richard Construction, LLC (eligible certified SLDBE) to perform asphalt & concrete paving
\$436,812.50 – 25.00%

HUDA, LLC (eligible certified SLDBE) to perform asphalt & concrete paving
\$192,197.50 – 11.00%

Total SLDBE Participation: \$629,010.00 – 36.00%

Correspondence from all SLBDEs on their own letterhead reaffirming negotiated terms was provided.

Based upon analysis of SLDBE participation, the Economically Disadvantaged Business Program recommends that the SLDBE participation submitted Wallace C. Drennan, Inc., and Fleming Construction Co., LLC, be accepted.

Request for Proposal for preparation of the Board's Report on Operations for 2015

On Thursday, September 3, 2015, one (1) bid was received for subject contract. The bid total is as follows:

Black & Veatch Corporation	\$116,000.00
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The estimated cost of this contract is \$118,000.00.

Thirty-Five percent (35%) SLDBE participation was requested on this contract.

Black & Veatch Corporation submitted the following subcontractors:

Julien Engineering & Consulting, Inc. (eligible certified SLDBE) to provide on-site inspections and updated reporting of Sewerage & Water Board facilities
\$28,000.00 – 24.00%.

Bruno & Tervalon, LLP (eligible certified SLDBE) to assist with the development of fund balances as of year-end 2015 and the preparation of The Letters of Understanding Regarding the Computation of Funds Available for Future Construction
\$26,950.00 – 23.00%.

Participation totals: \$54,950.00 – 47.37%

Based upon analysis of SLDBE participation, the Economically Disadvantaged Business Program recommended that the participation submitted by Black & Veatch Corporation be accepted.

Construction Review Committee Meeting

Tuesday, September 15, 2015

9:00 a.m.

Sewerage and Water Board of New Orleans
Economically Disadvantaged Business Program

Open Market Contracts

One year contract, no renewal options

1. Contract #1377 **Water Hammer Hazard Mitigation Program: Claiborne Pump Station and Off-Site Improvements**

Estimated Cost: \$1,435,867.00

Suggested Goal: 9.5%

Areas of Participation: Demolition, Paving, Traffic Safety, Fencing, Paints & Coating, and Building Construction

Source of funding is FEMA Reimbursable Account

Note: This project was tabled until the next meeting for further internal review
2. Contract #3796 **Replacing two 16" VTSG Non-clog Sewage Pumps at Blvd 'X' Sewage Pumping Station**

Estimated Cost: \$500,000.00

Suggested Goal: 0%

Areas of Participation: Scope of work does not allow for subdivision of task

Source of funding is Sewer Systems Fund
3. Contract #3797 **Bio-solids Incinerator System Improvements- Sludge Dryer Purchase for the East Bank Sewage Treatment Plant**

Estimated Cost: \$3,400,000.00

Suggested Goal: 0%

Areas of Participation: This is a singular purchase

Source of funding is FEMA Reimbursable Account & Sewer System Fund

Note: The scope of this project is a purchase, and not construction, therefore it was moved to SCRC
4. Contract #3798 **Bio-solids Incinerator System Improvements- Sludge Dryer Purchase for the East Bank Sewage Treatment Plant**

Estimated Cost: \$750,000.00

Suggested Goal: 0%

Areas of Participation: This is a singular purchase

Source of funding is Sewer System Fund

Note: The scope of this project is a purchase, and not construction, therefore it was moved to SCRC

5. Contract #30202

**Repair of the Sewer, Water, and Drainage Infrastructure
Systems within the Federal City Complex**

Estimated Cost:

\$2,000,000.00

Suggested Goal:

36%

Areas of Participation:

Repair, Removal, and Installation of infrastructure

Source of funding is Water, Sewer, and Drainage System Fund

Staff Contract Review Committee Recommendations

The Staff Contract Review Committee met on September 15, 2015, and made the following recommendations:

Open Market Contracts

Open Market, 35% SLDBE Participation, one (1) year with three (3) one (1) year renewal options.

1. RFP for Third Party Claims Administrator Services for Worker Compensation

Estimated Cost: \$100,000.00

Areas of Participation: Utilization of knowledge to handle Workers Compensation cases and report directly to the Risk Management Department
Funding Source: S&WB
Operating and Maintenance Budget.

One Time Purchase Only, 0% SLDBE Participation, no renewal options.

2. Manufacture and Delivery of New Sludge Dryer for the East Bank Wastewater Treatment Plant

Estimated Cost: \$3,400,000.00

Percentage Goal Justification: Does not lend itself to SLDBE participation because the product is sole sourced item that is shipped and assembled by the manufacturer.
Funding Source: S&WB Sewer Capital Funds.

3. Manufacture and Delivery of New Incinerator Emission Control Equipment for the East Bank Wastewater Treatment Plant

Estimated Cost: \$75,000.00

Percentage Goal Justification: Does not lend itself to SLDBE participation because the product is sole sourced item that is shipped and assembled by the manufacturer.
Funding Source: S&WB Sewer Capital Funds.

4. Furnishing and Delivering Small Fleet Trucks

Estimated Cost: \$2,000,000.00

Percentage Goal Justification: Does not lend itself to SLDBE participation because products are single items that are shipped directly from the manufacturer and the warranty issues that are involved.
Funding Source: S&WB Sewer Capital Funds.

Open Market, 0% SLDBE Participation, one (1) year with a one (1) year renewal option.

5. Furnishing Sodium Hypochlorite to the Carrollton and Algiers Plants

Estimated Cost: \$1,500,000.00

Percentage Goal Justification: Does not lend itself to SLDBE participation because services cannot be sub-divided and shipped in specialized lined pneumatic trailer-trucks.
Funding Source: S&WB
Operating and Maintenance Budget

6. Furnishing Anhydrous Ammonia

Estimated Cost:

\$400,000.00

Percentage Goal Justification:

Does not lend itself to SLDBE participation because product cannot be sub-divided and shipped in specialized lined pneumatic trailer-trucks.

Funding Source: S&WB

Operating and Maintenance Budget

7. Furnishing Liquid Polyphosphate

Estimated Cost:

\$400,000.00

Percentage Goal Justification:

Does not lend itself to SLDBE participation because product cannot be sub-divided and shipped in specialized lined pneumatic trailer-trucks.

Funding Source: S&WB

Operating and Maintenance Budget

Renewal Contract

Third Renewal of Five Renewal Options, 35% SLDBE Participation.

8. Furnishing Auditing Services for the year ending December 31, 2015

Renewal Cost:

\$87,500.00

Prime Contractor:

Postlethwaite & Netterville

SLDBE Subcontractor:

Bruno & Tervalon

Funding Source: S&WB

Operating and Maintenance Budget.

The DBE participation goal is 35.00%. The DBE participation achieved is 43.56%.

Sewerage & Water Board Contracts with SLD BE Participation January - September 2015

Category	Category Dollar Amount	SLDBE Dollar Value
Goods and Services Contracts	\$ 1,566,130	\$ 501,365
Construction Contracts	\$ 27,717,314	\$ 9,394,290
Professional Services Contracts	\$ 30,564,830	\$ 5,137,012
Grand Total	\$ 59,848,273	\$ 15,032,667

Sewerage & Water Board Contracts with SLDBE Participation January - August 2015									
Goods & Services Contracts									
Contract Description	Contract Dollar Amount	Prime Contractor	SLDBE Subcontractor	SLDBE %		Awarded SLDBE Dollar Value	Award Date		
YW15-0003 Furnishing Limestone	\$ 148,778	SAV Trucking Services, LLC	Blue Ribbon Resources	35%		\$ 52,072	2/18/15		
ME15-0001 Furnishing Janitorial Services for the Carrollton Water Plant	\$ 76,120	KSM Janitorial & Cleaning Service, LLC	Richard's Paper & Chemical Company	30%		\$ 22,836	3/19/15		
RX-SA15-0001 Furnishing Janitorial Services for the Central Yard Complex	\$ 44,368	Crescent Building Services, Inc.	West bank Paper & Janitorial Supplies	30%		\$ 13,310	3/19/15		
SU15-0003 Furnishing Janitorial Services for St. Joseph St., Julia St., and Behrman Place	\$ 120,000	KSM Janitorial & Cleaning Service, LLC	West bank Paper & Janitorial Supplies	30%		\$ 36,000	6/18/15		
YW15-0007 Furnishing Hand Tools, Hardware Supplies, Paint and Paint Supplies	\$ 360,282	Assorted Products, LLC	West bank Paper & Janitorial Supplies	30%		\$ 108,084	6/18/15		
YW15-0009 Furnishing Safety Supplies	\$ 138,766	Southeast Safety Supply	Assorted Products, LLC	30%		\$ 44,400	6/18/15		
YW15-0012 Furnishing Aerosol, Janitorial and Industrial Chemicals	\$ 286,024	Assorted Products	West Bank Paper and Janitorial Supplies	30%		\$ 85,807			
YW15-0010 Furnishing River Sand, Mason Sand and Washed Gravel to the Sewerage & Water Board of New Orleans	\$ 225,350	Qualified Transportation	SAV Trucking Service	30%		\$ 67,605			
YW15-0014 Furnishing Paper Products and Janitorial Sanitary Supplies	\$ 50,441	Economical Janitorial and Paper Supplies, LLC	Mule-Durel	30%		\$ 16,300			

Sewerage & Water Board Contracts with SLDBE Participation January - August 2015						
Goods & Services Contracts						
Contract Description	Contract Dollar Amount	Prime Contractor	SLDBE Subcontractor	SLDBE %	Awarded SLDBE Dollar Value	Award Date
Preparation of Board Report on Operations for 2015	\$ 116,000	Black & Veatch Corp	Julien Engineering Bruno & Tervalon	35%	\$54,950	
Total Goods & Services Contracts	\$ 1,566,130				\$ 501,365	

Sewerage & Water Board Contracts with SLD BE Participation January - August 2015						
Construction Contracts						
Contract Description	Contract Dollar Amount	Prime Contractor	SLDBE Sub-Contractor	Awarded SLSLD BE %	Awarded SLD BE Dollar Value	Award Date
#8143 - Katrina Related Repairs to Garage #2 at Central Yard	\$ 798,424	Hamp's Construction, LLC	Boines Construction	12.42%	\$99,180	1/21/15
			Paint Pro Depot	26.91%	\$214,850	
#2106 - Installation of New Water, Sewer, and Drain Connections at Various Sites throughout Orleans	\$ 2,336,550	Fleming Construction Co., LLC	Total	39.33%	\$ 314,030	4/6/15
			Cooper Contracting Group	25.04%	\$585,000	
			Hebert's Trucking and Equipment Service	11.13%	\$260,000	
and Extensions at Scattered Locations throughout Orleans	\$ 998,150	Wallace C. Drennan, Inc.	Total	36.16%	\$ 845,000	4/6/15
			C & M Construction Group	31.65%	\$315,950	
Service Connection, Water Valve, and Fire Hydrant Replacement at Various Sites throughout Orleans	\$ 3,197,190	Wallace C. Drennan, Inc.	Choice Supply Solutions, LLC	1.00%	\$10,000	4/6/15
#3795 - Modification to the Return Activated Sludge PS and Pipeline at the East Bank Sewer Treatment Plant	\$ 1,677,000	Industrial & Mechanical Contractors	Total	32.66%	\$ 325,950	4/6/15
			C & M Construction Group	17.55%	\$561,150	
			Choice Supply Solutions, LLC	10.63%	\$340,000	
#1369 - HMGP Emergency Fuel Storage Retrofit Power Plant at the MWPP Power Complex	\$7,486,250	Lou-Con, Inc.	Prince Dump Truck Service	7.87%	\$251,700	5/20/15
			Total	36.06%	\$ 1,152,850	
			EFT Diversified	5.96%	100,000	
#1382- Replacement of the Media of Filters 1A, 1B, 5A, and 5B at the Claiborne Filter Gallery at the MWPP	\$1,079,544	Lou-Con, Inc	Total	5.96%	\$ 100,000	5/20/15
			Morgan Electric, LLC	16.81%	\$1,258,355	
			RLH Investments	14.53%	\$1,087,832	
#1371- HMGP Structural General Contract	\$2,220,000	Alfred Conthagen Inc. of LA	Choice Supply Solutions	3.73%	\$279,500	5/20/15
			The Beta Group	1.03%	\$77,000	
			Total	36.10%	\$2,702,687	
#1374- HMGP Structural General Contract	\$2,220,000	Alfred Conthagen Inc. of LA	EFT Diversified	37.05%	400,000	5/20/15
			Pro Placement USA, LLC	37.05%	\$ 400,000	
			Kenall, Inc.	23.42%	520,000	
#1374- HMGP Structural General Contract	\$2,220,000	Alfred Conthagen Inc. of LA	EFT Diversified	0.45%	10,000	5/20/15
			Metro Service Group, Inc.	13.51%	300,000	
			Total	0.90%	20,000	

Sewerage & Water Board Contracts with SLDBE Participation January - August 2015						
Construction Contracts						
Contract Description	Contract Dollar Amount	Prime Contractor	SLDBE Sub-Contractor	Awarded SLSLDBE %	Awarded SLDBE Dollar Value	Award Date
#3737 - Carrollton Area Sewer Rehabilitation Mistletoe 18" Sewer Line Replacement	\$797,625	Wallace C. Drennan, Inc.	Total C&M Construction Group, Inc. Choice Supply Solutions, LLC Prince Dump Truck Service	38.29% 3.85% 7.86% 4.48%	\$ 850,000 30,700 62,718 35,730	7/15/15
#30016 - Restoration of Existing Gravity Flow Sanitary Sewer Mains by Excavation and Replacement from Manhole-to-Manhole, CIPP Lining of Service Laterals and Point Repair at Various Sites throughout the City of New Orleans			Total C&M Construction Group, Inc.	16.19% 8.80%	\$ 129,148 376,385	7/15/15
#30014- Cleaning and CCTV Inspection of Sanitary Sewer Mains at Scattered Sites within Orleans Parish	\$4,277,481	Wallace C. Drennan, Inc.	Prince Dump Truck Service Total	27.29% 36.09%	1,167,400 \$ 1,543,785	7/15/15
#1387 - Painting and Repairs of Four Million Gallon Water Storage Tanks at the Main Water Purification Plant	\$716,850	Compliance EnviroSystems, LLC	Blue Flash Drain & Sewer Service Total	40.00% 40.00%	286,740 \$ 286,740	7/15/15
#8144 - Re-paving Open Cuts in Streets, Driveways and Sidewalks Resulting from the Repair to the SWBNO Underground Utilities	\$465,950.00	Crom Engineering and Construction Services, LLC	Paint Pro Depot Total	29.01% 29.01%	144,000 \$ 144,000	8/3/15
	\$1,666,300.00	Wallace C. Drennan, Inc.	C&M Construction Group, Inc. Total	36.01% 36.01%	600,100 \$ 600,100	
Total Construction Contracts	\$ 27,717,314		Total		\$ 9,394,290	

Sewerage & Water Board Contracts with SLD BE Participation from January - August 2015						
Professional Service Contracts						
Contract Description	Contract Dollar Amount	Prime Contractor	SLD BE Sub-Contractor	SLD BE %	Awarded SLD BE Value	Award Date
Construction Management Services for Capital Projects	Fixed Hourly Rates (upon request)	Meyer Engineers	Infinity Engineers	35%	N/A	1/21/2015
Design and Engineering Services for the Carrollton Water Treatment Plant Sludge Line to the River	\$ 555,564	CDM Smith	MSMM Engineering, LLC	35%	\$ 194,447	1/25/2015
ARC Flash Assessment for Analysis for the Carrollton Water Treatment Plant	\$ 259,884	URS Corporation	Infinity Engineers	35%	\$ 90,959	1/25/2015
Design and Engineering Services for the East Bank Wastewater Treatment Plan Effluent Pump Station	\$ 299,737	AECOM Technical Services, Inc.	Bonton Associates GreenPoint Engineering Trigon Associates, LLC	35%	\$ 104,908	2/18/2015
Provide Design and Engineering Services for HVAC System Improvements at the St. Joseph Street Building	\$ 41,000	Infinity Engineers	WDG Architects Engineers	35%	\$ 14,350	2/18/2015
Design and Engineering Services for Kansas Street and Jourdan Road Sewer Force Mains	\$ 659,110	Royal Engineers & Consultants, LLC.	Circular Consulting GreenPoint Engineering MSMM Engineering, LLC.	35%	\$ 230,689	2/18/2015

HMGP Retrofit Distribution Network (Design-Build)										
		\$ 27,798,386	Grady Crawford Construction Company Inc.	Balthazar Electriks Three C's Properties Baker Ready Mix				\$ 4,168,757	4/15/2015	
					15%					
Provide Design and Engineering Services for Broad Street Drainage Underpass Station										
	\$	57,700	G.E.C., Inc.	Infinity Engineering Consultants, Inc.	35%			\$ 20,195	5/20/2015	
Provide Design and Engineering Services for South Carrollton Bulk Storage and Chemical Feed Facility										
				Infinity Engineering Consultants, Inc.						
	\$	60,786	Stanley Consultants, Inc.	Trigon Associates, LLC The Beta Group	35%			\$ 21,275	5/20/2015	
Provide Design and Engineering Services for Broad Street Drainage Underpass Station										
	\$	21,208	Burk-Kleinpeter, Inc.	Infinity Engineering Consultants, Inc.	35%			\$ 7,423	5/20/2015	
Provide ARC Flash Analysis, Assessment of Storage Tank Mixing and Launder Trough Replacement										
	\$	811,455	HNTB Corporation	Infinity Engineering Consultants, Inc.	35%			\$ 284,009	5/20/2015	
				ILSI Engineering						
Total Professional Service Contracts	\$	30,564,830						\$ 5,137,012		

**Sewerage and Water Board of New Orleans
Customer Service Report
Indicators of Metric Results
September 2015**

	Goal	Goal Met		Within Control Limits		Trend
Billing Accuracy / Reasonable						
	Meters Read	Green		Green		Green
	Estimated Bills	Yellow		Green		Green
	High Bill Complaints	Yellow		Green		Yellow
	Adjusted Bills	Green		Green		Green
Problem Resolution						
	Customer Contacts	Yellow		Green		Yellow
	Call Wait Time	Green		Green		Green
	Abandoned Calls	Yellow		Green		Green
	Emergency Abandoned Calls	Yellow		Green		Green
	Low Water Pressure	Green		Green		Green
	Water System Leaks	Yellow		Green		Green
	Sewer System Leaks	Green		Green		Green
Collections Effectiveness						
	Accounts Off for Non-Payment			Green		Green
	Receivables 30 to 120 Days Old			Green		Yellow
	Receivables 120 Days and Older			Green		Green

Green = Favorable Variance

Yellow = Minimal Variance / No Action Recommended

Red = Unfavorable Variance / Action Recommended

Sewerage and Water Board of New Orleans

Meters Read as a Percentage of Total Meters

Constituency:
Customer Ratepayers

Objective: Provide
Accurate Bills

Goal: Read 98% or
more of meters each
month

Currently Meeting
Goal: **Yes**

Process Operating
Within Control Limits:
Yes

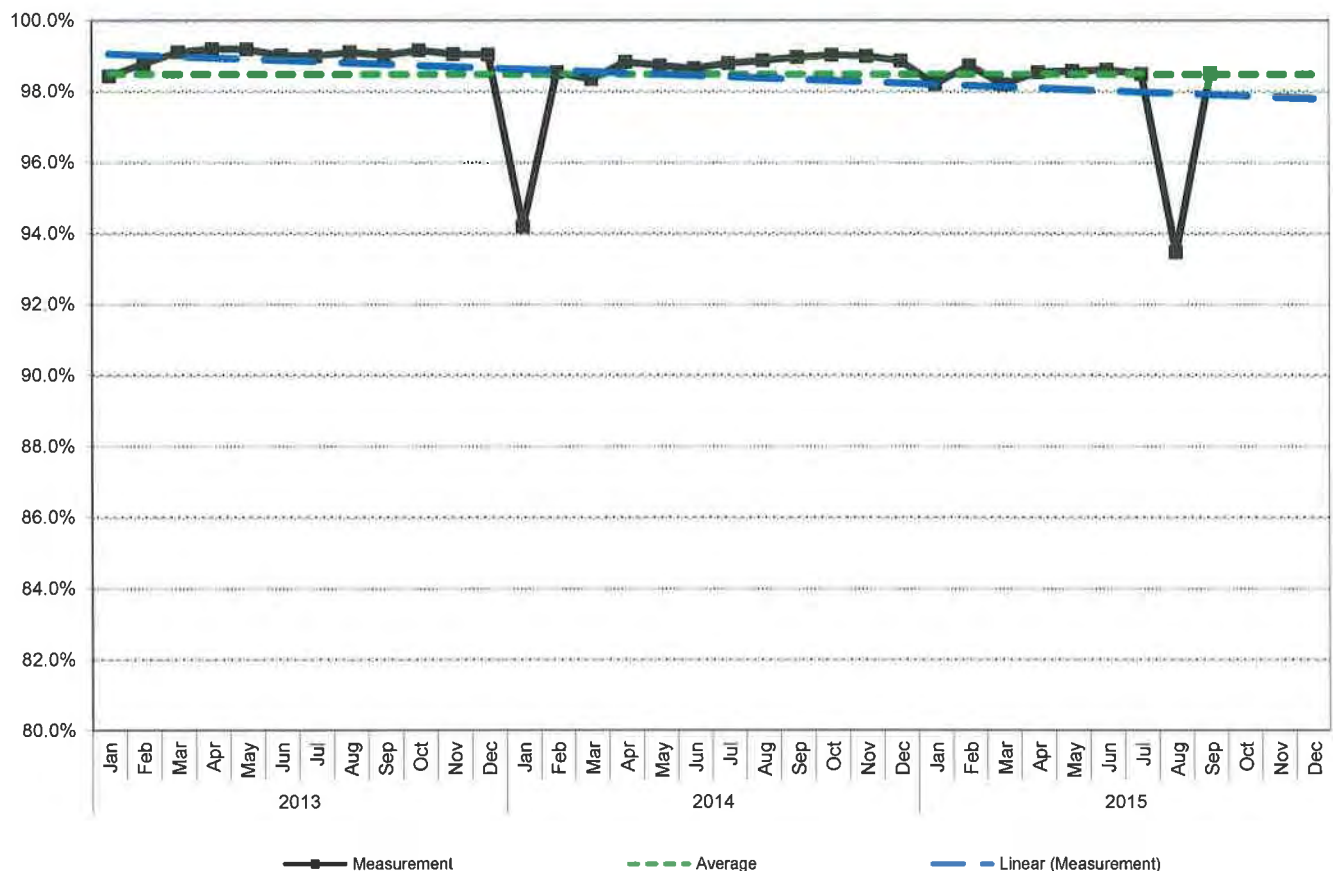
Trend: Level

Analysis

The purpose of the customer billing and collection processes is to collect revenues from customer accounts that are billed according to the service rules and are based upon accurate metered consumption. Obtaining an accurate reading is the first step in that process. Staff has maintained a reading rate near or above the goal since since April 2010 except for two months affected by Hurricane Isaac in 2012 and a winter freeze in January 2014.

Plans for Improvement

Staff is working to reduce the number of estimated and erroneous readings. Also, the Automated Meter Reading pilot project is also intended to reduce the number of estimated and erroneous readings, as well as to reduce the cost of obtaining a validated reading.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	98.4%	98.8%	99.1%	99.2%	99.2%	99.0%	99.0%	99.1%	99.0%	99.2%	99.1%	99.0%
2014	94.2%	98.5%	98.3%	98.8%	98.7%	98.6%	98.8%	98.9%	99.0%	99.0%	99.0%	98.9%
2015	98.2%	98.7%	98.2%	98.5%	98.6%	98.6%	98.5%	93.5%	98.5%			

Sewerage and Water Board of New Orleans

Bills Estimated as a Percentage of Total Bills

EUM Attribute:
Customer Satisfaction

Description: Provides reliable, responsive, and affordable services in line with explicit, customer-accepted service levels. Receives timely customer feedback to maintain responsiveness to customer needs and emergencies.

Constituency:
Customer Ratepayers

Objective: Provide Accurate Bills

Goal: Bill Accounts With Less Than 2% Estimated

Currently Meeting Goal: Close

Process Operating Within Control Limits:
Yes

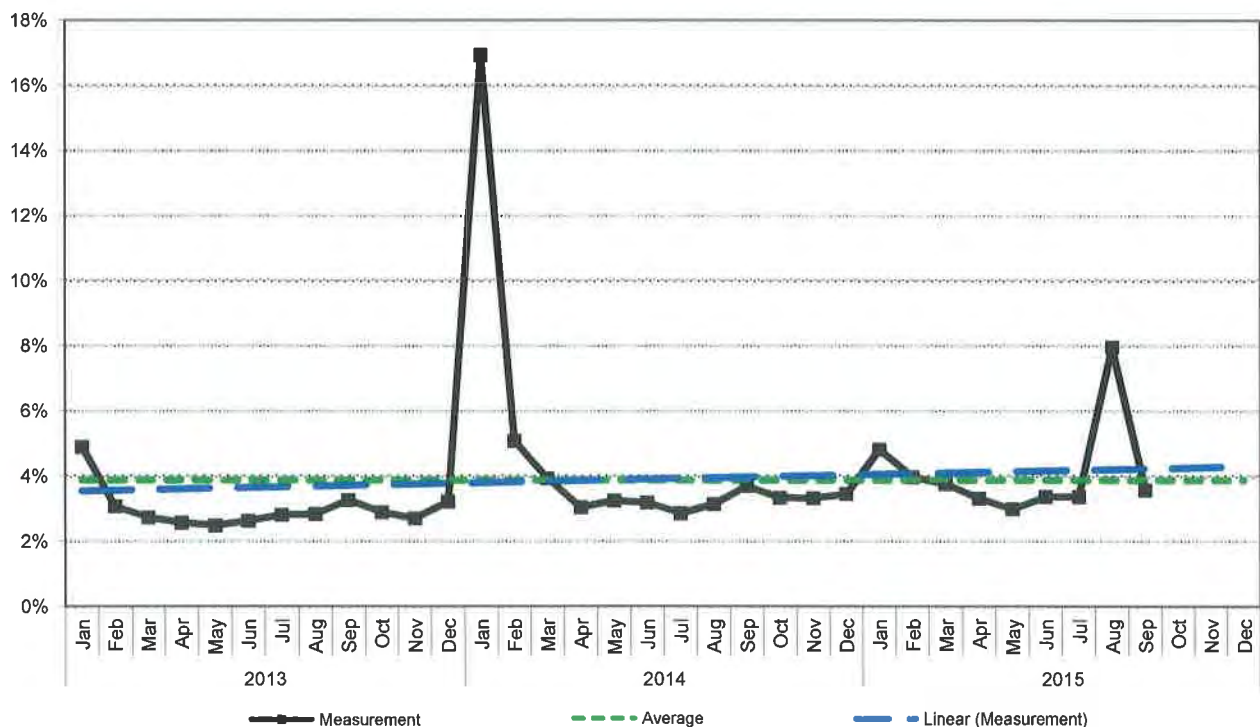
Trend: Level

Analysis

A bill is estimated if the meter is not read by the designated billing date. Bills are also estimated when a meter is read and the reliability of the reading is doubtful and the account is placed on an exception report. If the reading is not verified by the billing date, the bill will be estimated. Spikes in estimated bills usually occur when the Meter Reading department is unable to read a large section of meters during extreme weather.

Plans for Improvement

Current plans are focused on obtaining readings for accounts each month and verifying the reliability of each reading. Future plans will focus on advanced metering infrastructure that allows for readings to be obtained automatically several times daily.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	4.9%	3.1%	2.7%	2.6%	2.5%	2.6%	2.8%	2.8%	3.3%	2.9%	2.7%	3.2%
2014	16.9%	5.1%	3.9%	3.0%	3.2%	3.2%	2.8%	3.1%	3.7%	3.3%	3.3%	3.4%
2015	4.8%	4.0%	3.7%	3.3%	3.0%	3.4%	3.4%	7.9%	3.6%			

Sewerage and Water Board of New Orleans

Investigations from High Bill Complaints as a Percentage of Total Bills

Constituency:
Customer Ratepayers

Objective: Provide
Accurate Bills

Goal: Reduce
percentage over time

**Currently Meeting
Goal:** No

**Process Operating
Within Control Limits:**
Yes

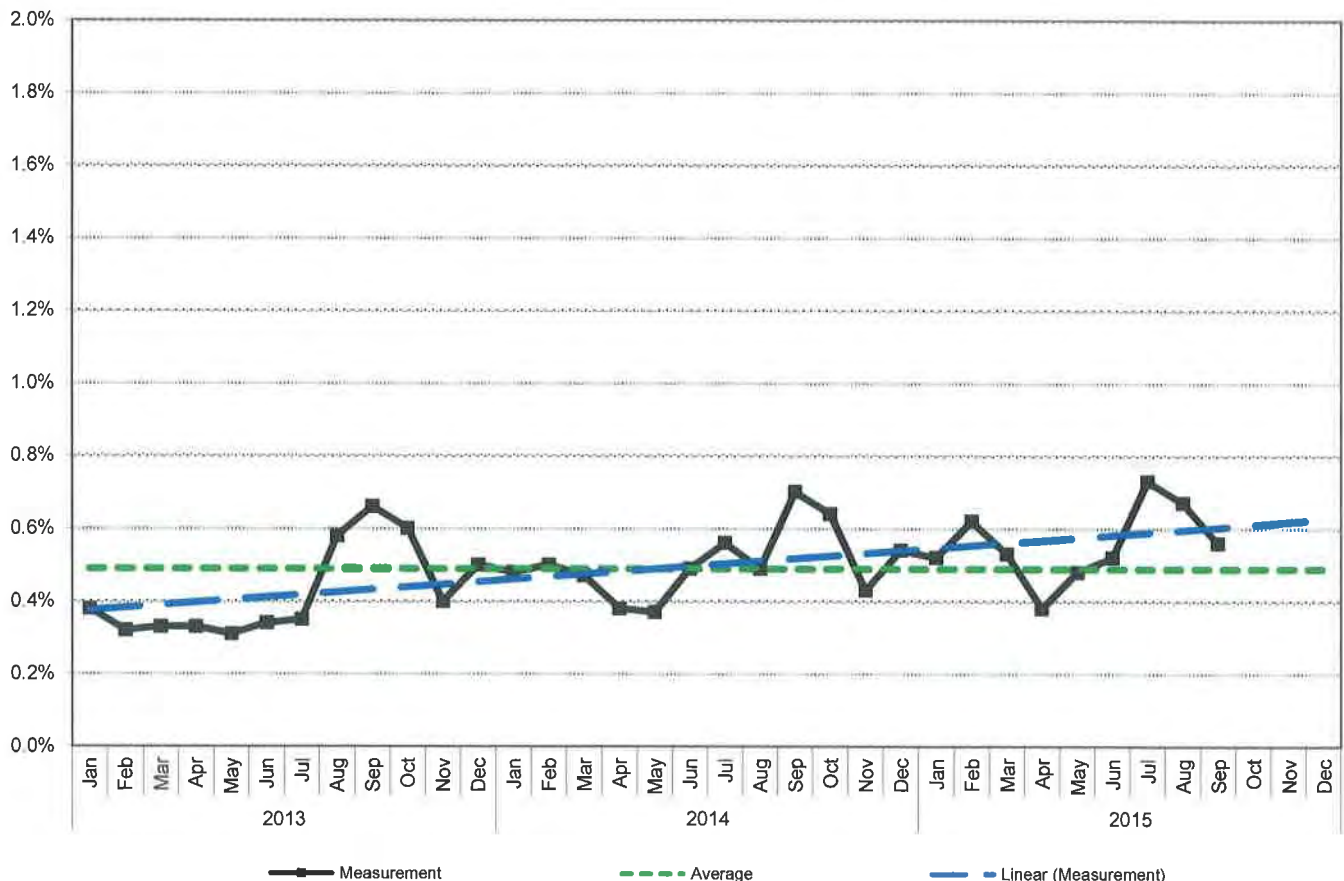
Trend: Unfavorable

Analysis

Customers request an investigation about their usage when the bill is higher than normal amounts. The higher billed amount may be due to: a leak; one or more estimated readings followed by an actual reading; an erroneous meter reading; or increased water, sewer, or sanitation rates. Before an adjustment can be made, an inspection of the meter and service line must be performed.

Plans for Improvement

Staff is working to reduce the number of estimated and erroneous readings. Also, the Automated Meter Reading pilot project is also intended to reduce the number of estimated and erroneous readings, as well as to reduce the cost of obtaining a validated reading.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.6%	0.7%	0.6%	0.4%	0.5%
2014	0.5%	0.5%	0.5%	0.4%	0.4%	0.5%	0.6%	0.5%	0.7%	0.6%	0.4%	0.5%
2015	0.5%	0.6%	0.5%	0.4%	0.5%	0.5%	0.7%	0.7%	0.6%			

Sewerage and Water Board of New Orleans

Bills Adjusted as a Percentage of Total Bills Computed

Constituency:
Customer Ratepayers

Objective: Provide
Accurate Bills

Goal: Reduce
percentage over time

Currently Meeting
Goal: Yes

Process Operating
Within Control Limits:
Yes

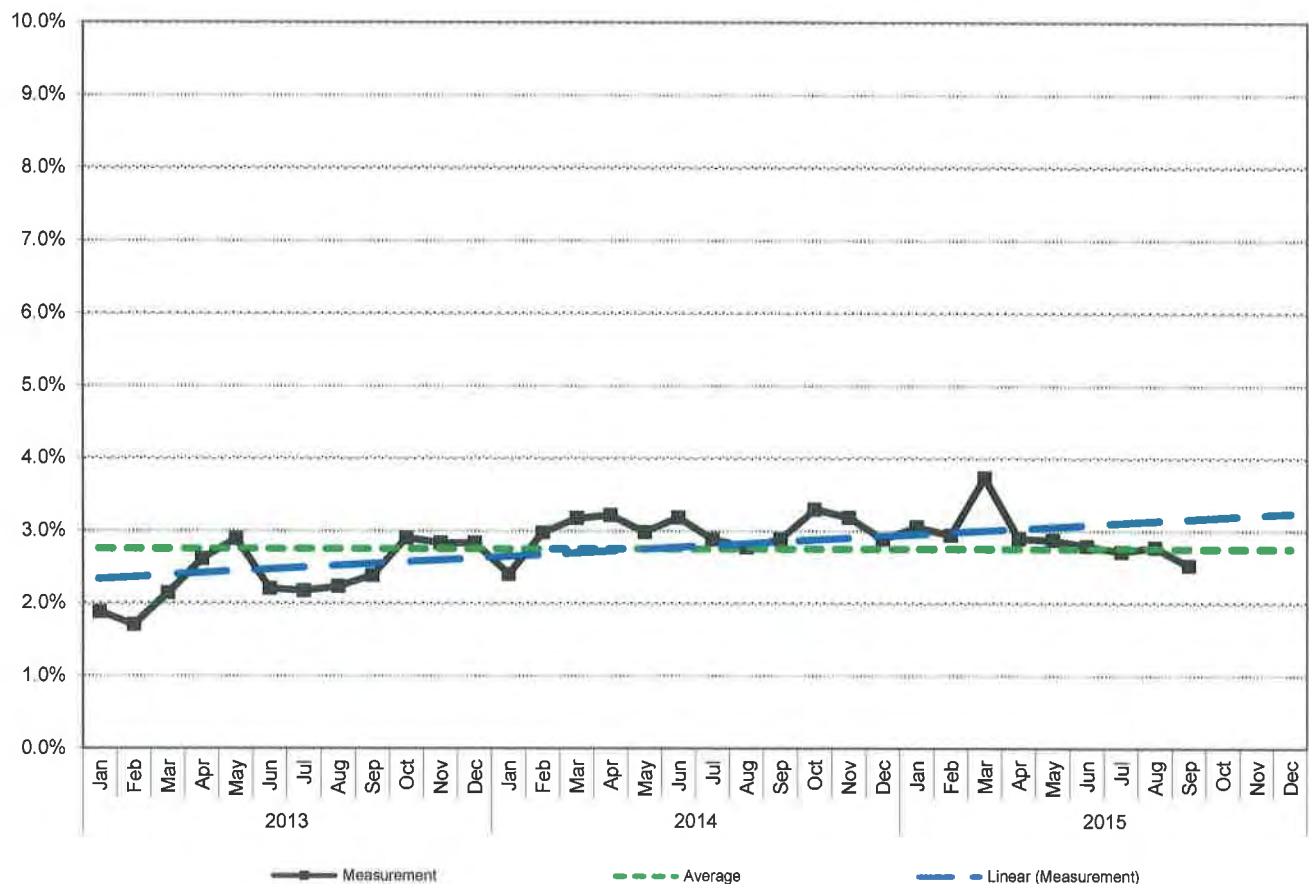
Trend: Close

Analysis

Customers request adjustments to their bill due to higher than normal amounts. The higher billed amount may be due to: a leak; one or more estimated readings followed by an actual reading; an erroneous meter reading; or increased water, sewer, or sanitation rates. Before an adjustment can be made, an inspection of the meter and service line must be performed.

Plans for Improvement

Staff is working to reduce the number of estimated and erroneous readings. Also, the Automated Meter Reading pilot project is also intended to reduce the number of estimated and erroneous readings, as well as to reduce the cost of obtaining a validated reading.



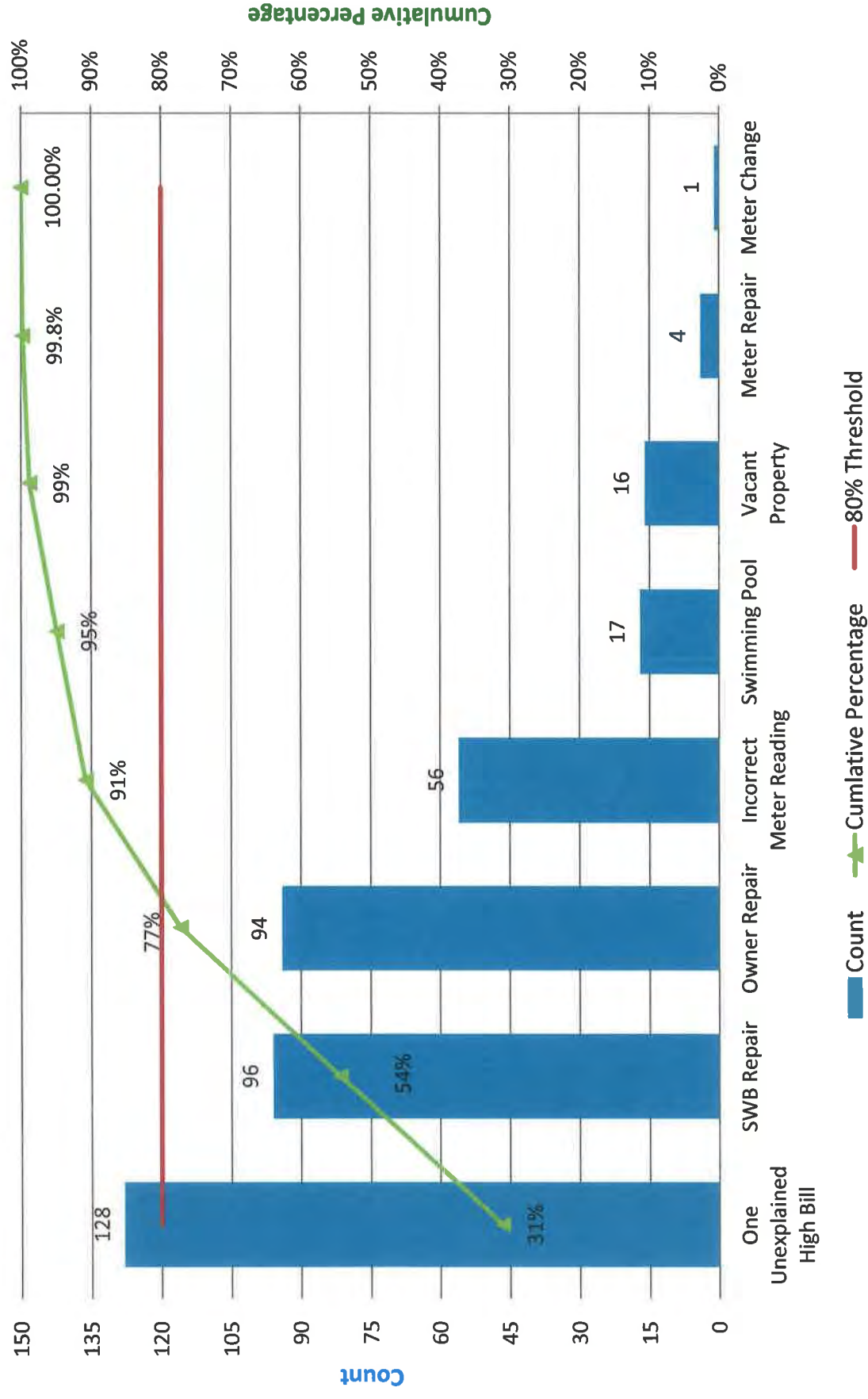
Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	1.9%	1.7%	2.1%	2.6%	2.9%	2.2%	2.2%	2.2%	2.4%	2.9%	2.8%	2.8%
2014	2.4%	3.0%	3.2%	3.2%	3.0%	3.2%	2.9%	2.8%	2.9%	3.3%	3.2%	2.9%
2015	3.1%	2.9%	3.7%	2.9%	2.9%	2.8%						

Sewerage and Water Board of New Orleans

Chart of Reasons for Adjustments

September 2015



Sewerage and Water Board of New Orleans

Total Inbound Customer Contacts

Constituency:
Customer Ratepayers

Objective: Provide Timely
Information and Respond
Promptly to Requests

Goal: Reduce
Triggers of Customer
Calls

**Currently Meeting
Goal:** No

**Process Operating
Within Control
Limits:** Yes

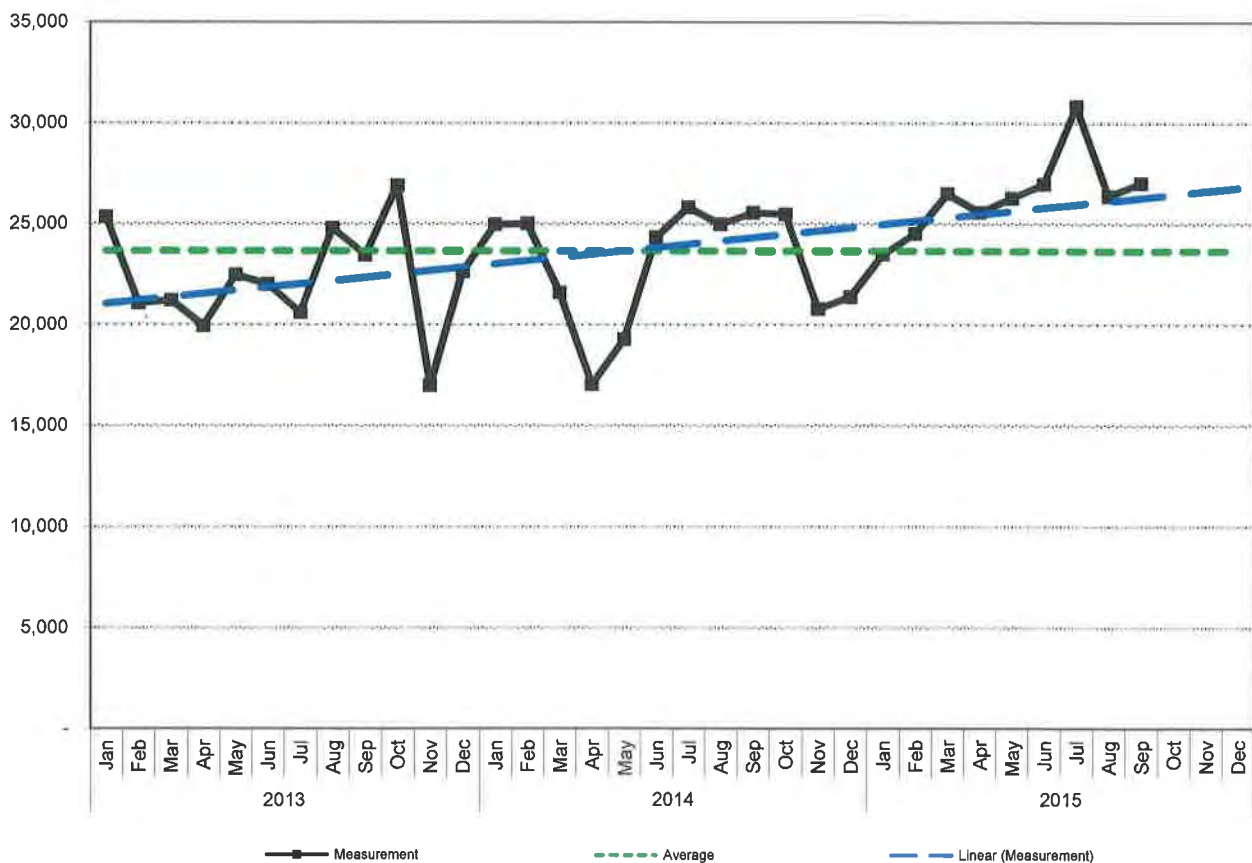
Trend: Unfavorable

Analysis

Customers contact the Sewerage and Water Board to start or end service; to request information about their bill; to report concerns about their water service, sewer connection, street flooding, or solid waste sanitation service; and other matters. The Call Center for emergency repairs is operated continuously, while the Call Center for billing and non-emergency issues is operated from 7 AM to 7 PM. Call volumes can vary significantly month to month.

Plans for Improvement

Staff is analyzing the events that trigger calls in order to determine methods to reduce the volume. Short term plans for improvement will focus on creating more efficient "scripts" for handling routine call matters. Longer term plans will focus on reducing the overall call volumes with interactive voice response capabilities.



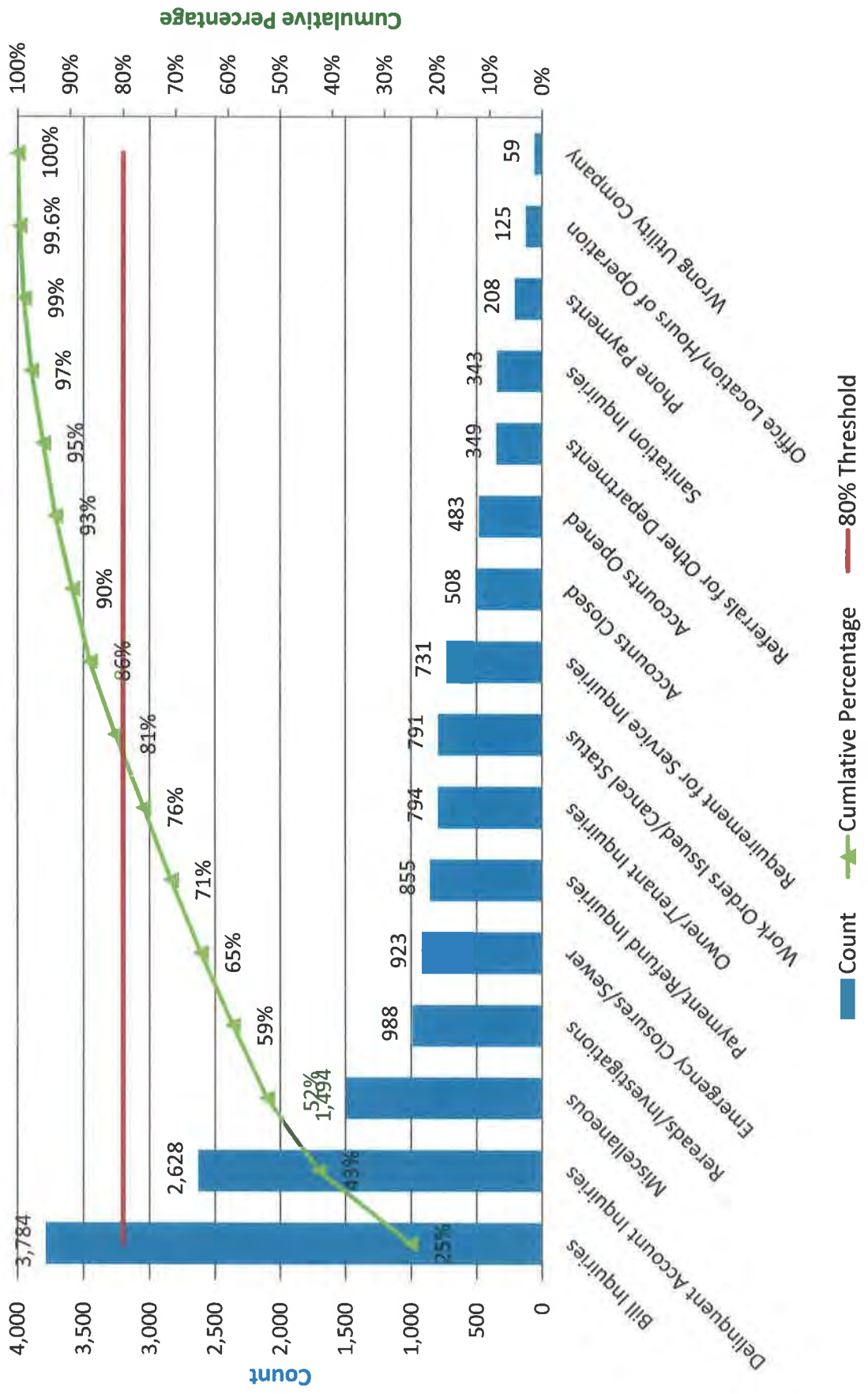
Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	25,331	21,051	21,194	19,937	22,446	21,994	20,602	24,764	23,439	26,892	16,980	22,610
2014	24,945	24,992	21,579	17,032	19,276	24,315	25,800	24,967	25,532	25,467	20,775	21,366
2015	23,470	24,496	26,486	25,565	26,261	26,963	30,836	26,368	27,019			

Sewerage and Water Board of New Orleans

Chart of Types of Customer Calls

September 2015



Sewerage and Water Board of New Orleans

Average Call Wait Time

Constituency:
Customer Ratepayers

Objective: Provide
Accurate Bills

Goal: Reduce over
time

Currently Meeting
Goal: **No**

Process Operating
Within Control Limits:
Yes

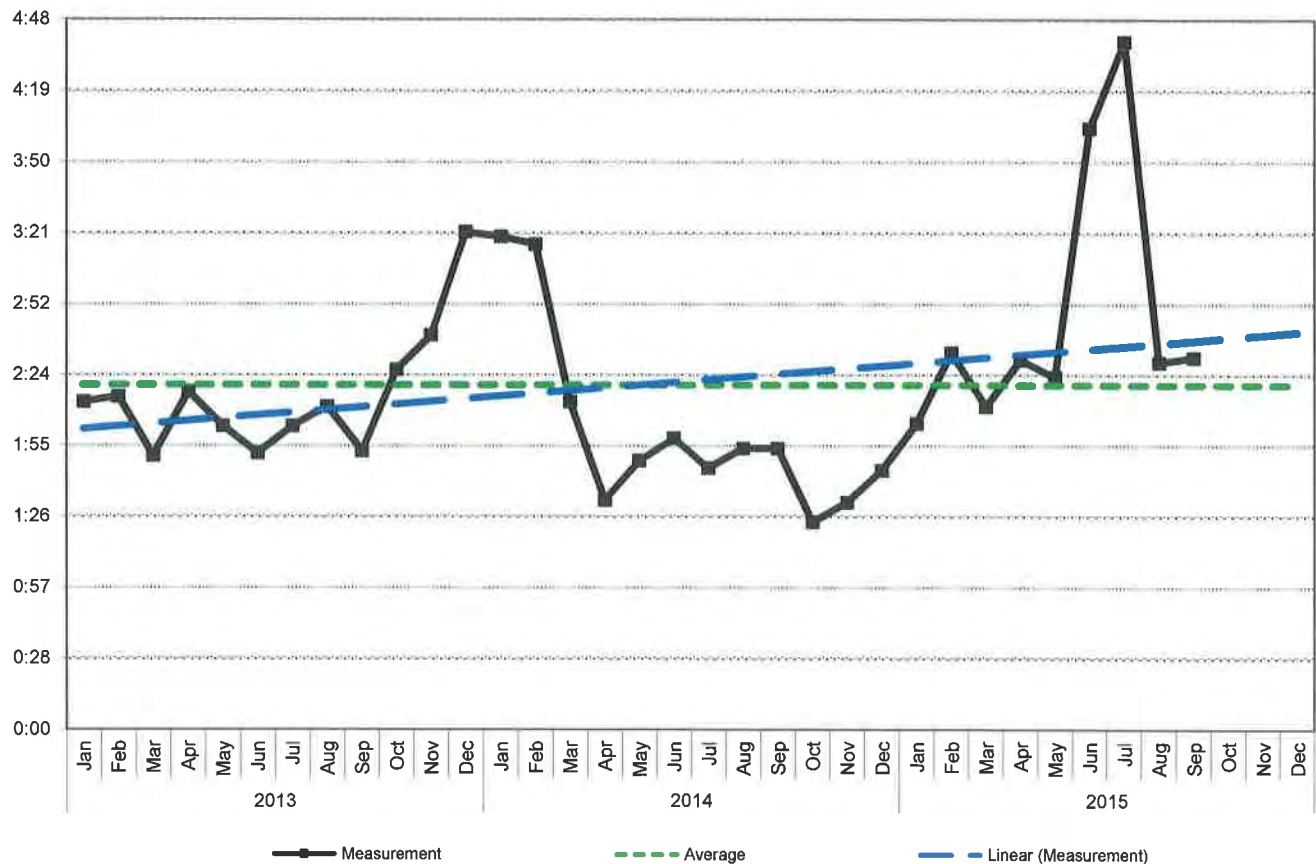
Trend: Unfavorable

Analysis

Customers contact the Sewerage and Water Board to start or end service; to request information about their bill; to report concerns about their water service, sewer connection, street flooding, or solid waste sanitation service; and other matters. The Call Center for emergency repairs is operated continuously, while the Call Center for billing and non-emergency issues is operated from 7 AM to 7 PM. Call volumes can vary significantly month to month.

Plans for Improvement

Staff is analyzing the events that trigger calls in order to determine methods to reduce the volume. Short term plans for improvement will focus on creating more efficient "scripts" for handling routine call matters. Longer term plans will focus on reducing the overall call volumes with interactive voice response capabilities.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	2:13	2:15	1:51	2:17	2:03	1:52	2:03	2:11	1:53	2:26	2:40	3:22
2014	3:20	3:17	2:13	1:33	1:49	1:58	1:46	1:54	1:54	1:24	1:32	1:45
2015	2:04	2:33	2:11	2:30	2:23	4:04	4:39	2:29	2:31			

Sewerage and Water Board of New Orleans

Calls Abandoned by Customers as a Percentage of Total

Constituency:
Customer Ratepayers

Objective: Provide Timely
Information and Respond
Promptly to Requests

Goal: Respond to calls
with less than 10%
abandoned

**Currently Meeting
Goal:** Close

**Process Operating
Within Control Limits:**
Yes

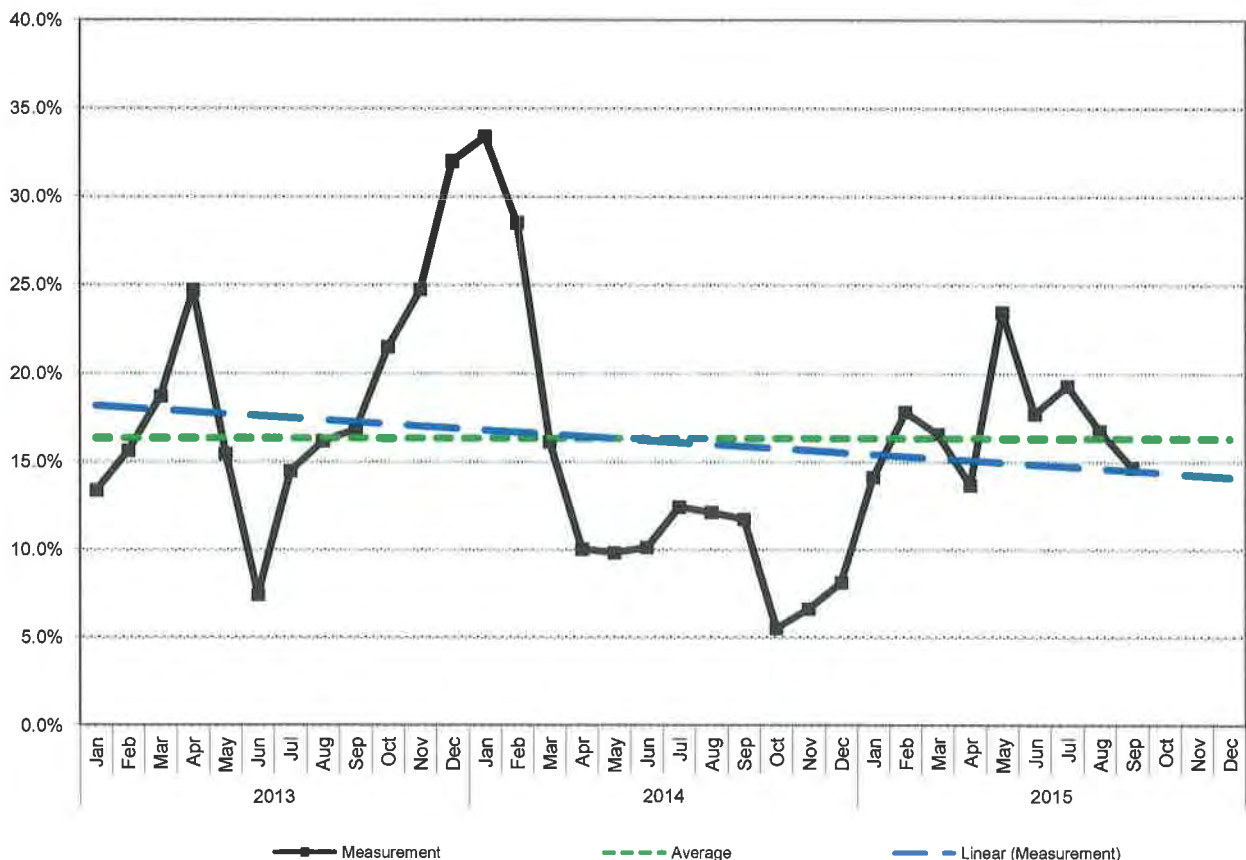
Trend: Favorable

Analysis

Customers abandon their call after waiting for an amount of time considered inconvenient, which varies from customer to customer. Some portion of the volume of abandoned calls is from customers calling and hanging up on multiple occasions.

Plans for Improvement

In order to resolve the significant increase in abandoned calls, additional employees have been hired and are being trained. Call rollover time has been reduced from 3 minutes to 20 seconds. Medium term plans for improvement will focus on creating more efficient "scripts" for handling routine call matters. Longer term plans will focus on reducing the overall call volumes with interactive voice response capabilities.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	13.3%	15.6%	18.7%	24.7%	15.4%	7.4%	14.5%	16.2%	16.8%	21.5%	24.7%	32.0%
2014	33.4%	28.5%	16.1%	10.0%	9.8%	10.1%	12.4%	12.1%	11.7%	5.5%	6.6%	8.1%
2015	14.1%	17.8%	16.6%	13.7%	23.4%	17.7%	19.3%	16.7%	14.7%			

Sewerage and Water Board of New Orleans

Emergency Calls Abandoned by Customers as a Percentage of Total Emergency Calls

Constituency:
Customer Ratepayers

Objective: Provide Timely Information and Respond Promptly to Requests

Goal: Respond to calls with less than 10% abandoned

Currently Meeting Goal: Close

Process Operating Within Control Limits:
Yes

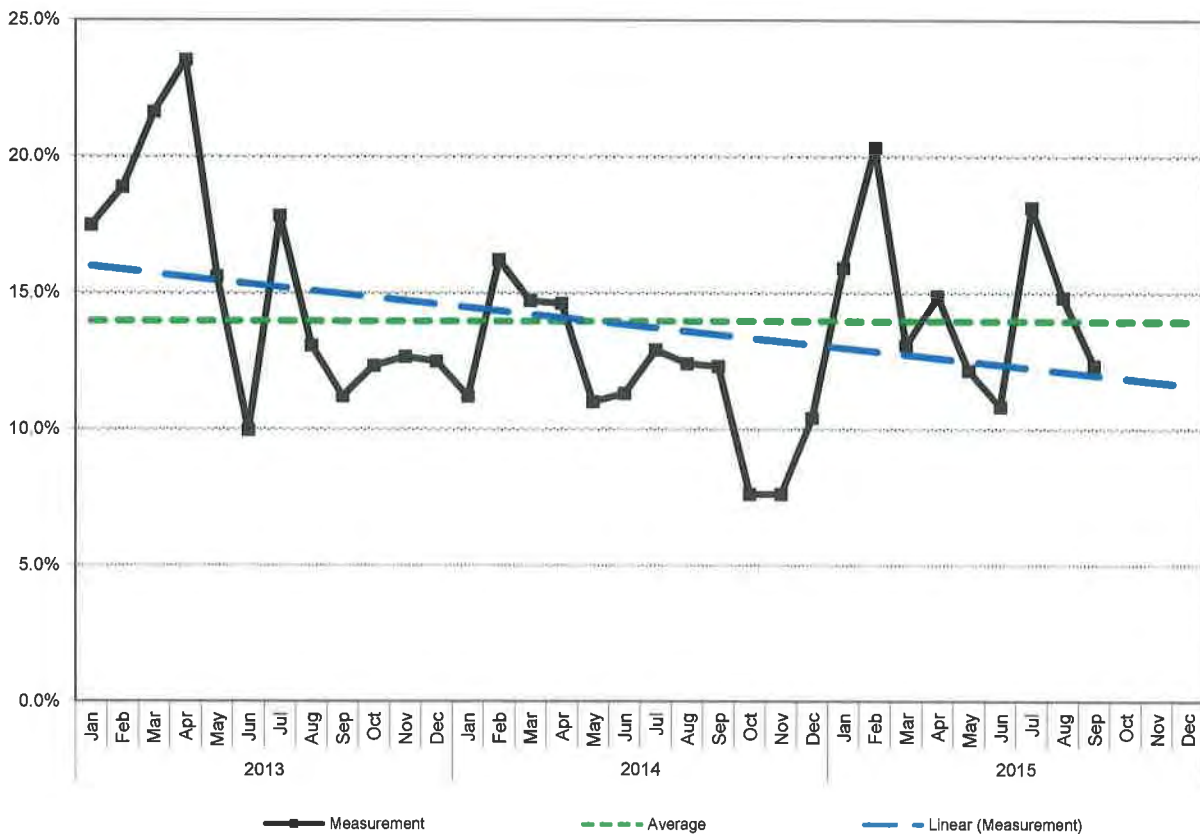
Trend: Favorable

Analysis

Customers abandon their call after waiting for an amount of time considered inconvenient, which varies from customer to customer. Some portion of the volume of abandoned calls is from customers calling and hanging up on multiple occasions. Staff is addressing this issue as a top priority. The telephone system was recently upgraded.

Plans for Improvement

In order to resolve the significant increase in abandoned calls, additional employees have been hired and are being trained. Call rollover time has been reduced from 3 minutes to 20 seconds. Scripts were created for more efficient handling of routine call matters. Longer term plans will focus on reducing the overall call volumes with interactive voice response capabilities.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	17.5%	18.9%	21.6%	23.5%	15.6%	10.0%	17.8%	13.1%	11.2%	12.3%	12.7%	12.5%
2014	11.2%	16.2%	14.7%	14.6%	11.0%	11.3%	12.9%	12.4%	12.3%	7.6%	7.6%	10.4%
2015	15.9%	20.3%	13.1%	14.9%	12.2%	10.8%	18.1%	14.8%	12.3%			

Sewerage and Water Board of New Orleans

Total Service Requests about Low Water Pressure

Constituency:
Customer Ratepayers

Objective: Provide Timely
Information and Respond
Promptly to Requests

Goal: Reduce
Number of Service
Requests

Currently Meeting
Goal: Close

Process Operating
Within Control
Limits: Yes

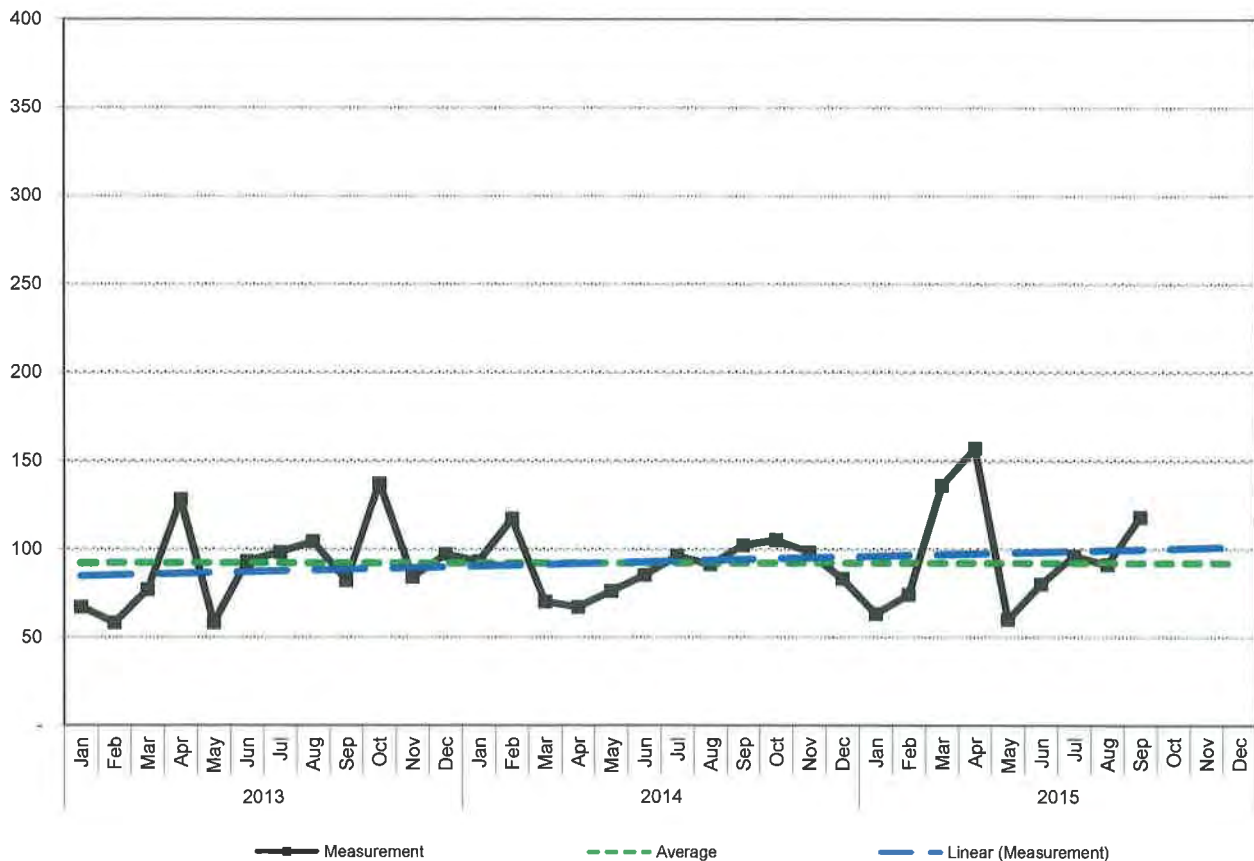
Trend: Level

Analysis

Customers contact the Sewerage and Water Board to request resolution to low water pressure. System pressure can be impaired by power failures at the treatment plants, by water main breaks, and by certain types of repair activities.

Plans for Improvement

Staff continues to make repairs to the water system to reduce the number of occasions of low pressure.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	67	58	77	128	58	93	98	104	82	137	84	97
2014	93	117	70	67	76	85	96	91	102	105	98	83
2015	63	74	136	157	60	80	96	91	118			

Sewerage and Water Board of New Orleans

Total Service Requests for Water System Leaks

Constituency:
Customer Ratepayers

Objective: Provide Timely
Information and Respond
Promptly to Requests

Goal: Reduce
Number of Service
Requests

Currently Meeting
Goal: Close

Process Operating
Within Control
Limits: Yes

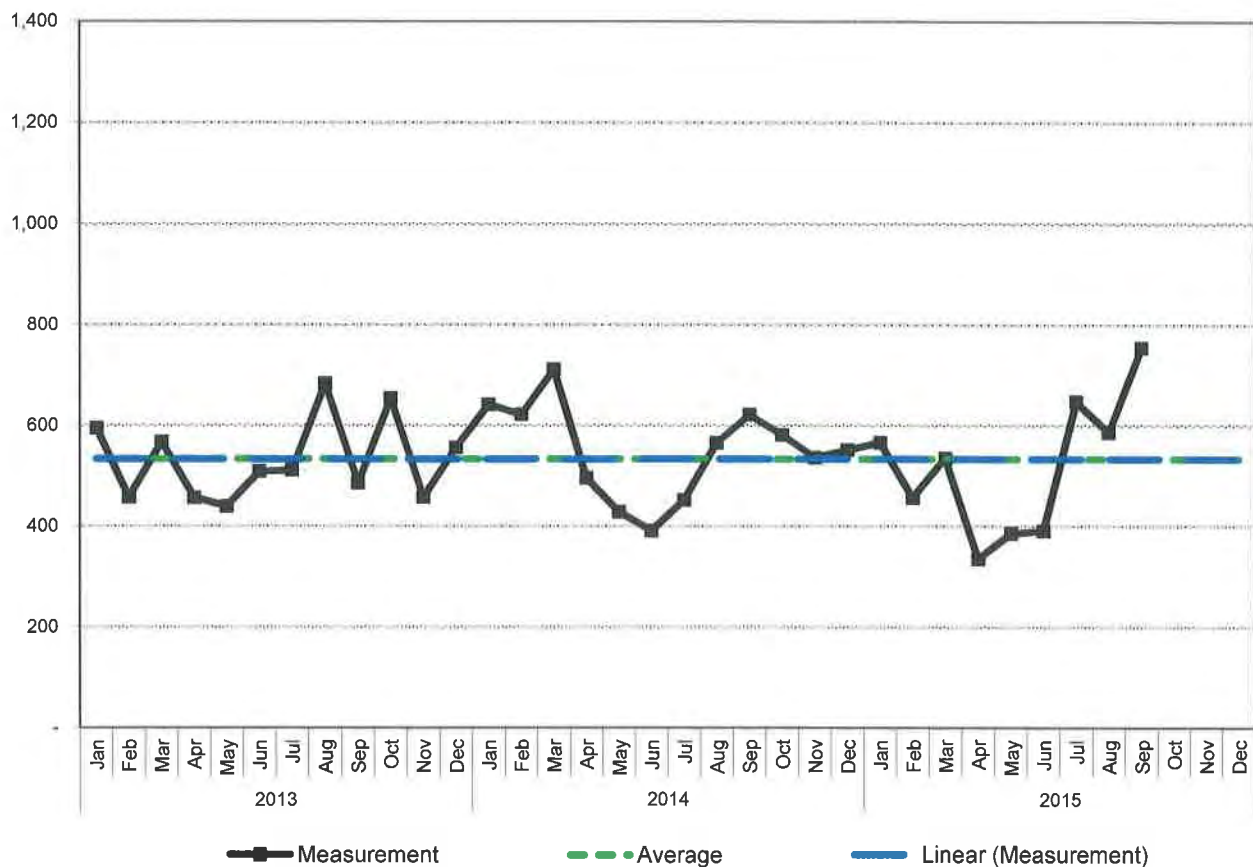
Trend: Level

Analysis

Customers contact the Sewerage and Water Board to request repairs to leaking mains, services and fire hydrants.

Plans for Improvement

Staff is working with FEMA to expand beyond point repairs to line replacements for water mains with high frequency of failure.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	594	457	567	456	439	508	511	683	485	654	457	556
2014	641	621	711	495	428	390	451	565	621	581	536	551
2015	566	456	535	335	385	390	647	586	754			

Sewerage and Water Board of New Orleans

Total Service Requests for Sewer System Leaks

Constituency:
Customer Ratepayers

Objective: Provide Timely
Information and Respond
Promptly to Requests

Goal: Reduce
Number of Service
Requests

**Currently Meeting
Goal:** **Yes**

**Process Operating
Within Control
Limits:** **Yes**

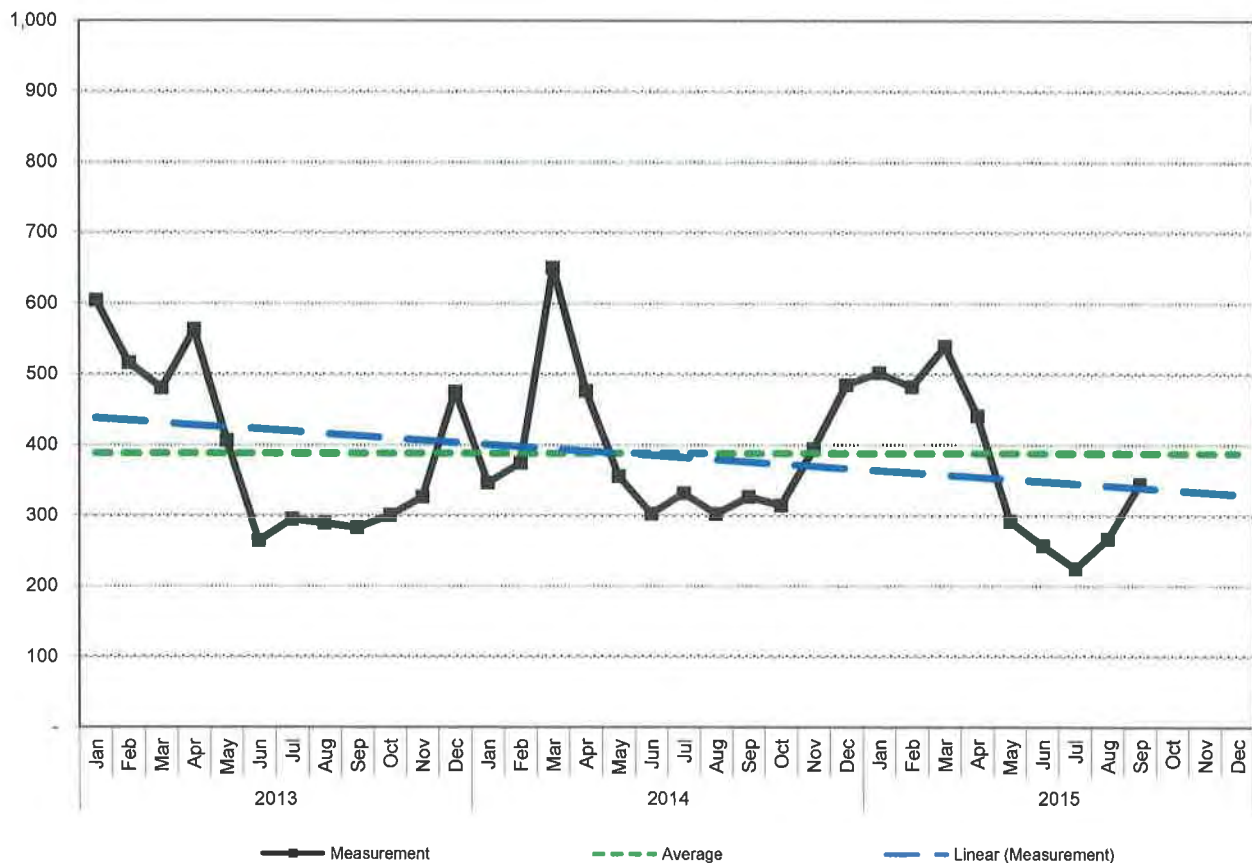
Trend: **Favorable**

Analysis

Customers contact the Sewerage and Water Board to request repairs to leaking sewer collection mains and service lines.

Plans for Improvement

Staff has recently expanded the use of Networks Department field staff focused on sewer system repairs.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	604	516	480	563	406	264	295	289	283	300	326	475
2014	346	374	650	476	355	302	331	302	326	314	394	485
2015	502	482	539	441	292	257	225	267				

Sewerage and Water Board of New Orleans

Total Accounts Turned Off for Non-Payment

Constituency:
Customer
Ratepayers

Objective: Ensure
Collection of Payments for
Services Provided

Goal: None
Established

**Currently Meeting
Goal:** Not Applicable

**Process Operating
Within Control**
Limits: **Yes**

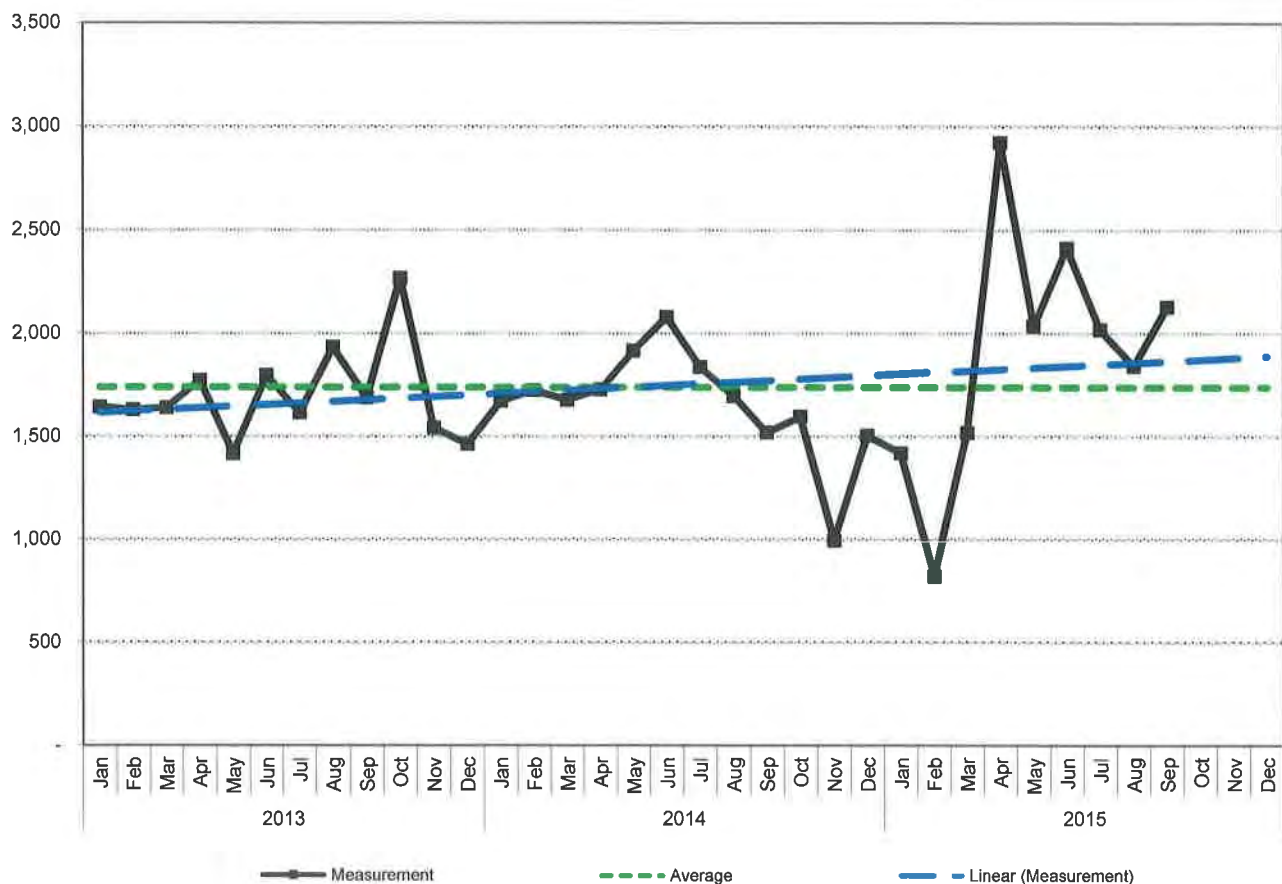
Trend: Level

Analysis

Customers accounts are turned-off for non-payment for balances more than \$50 and over sixty days past due.

Plans for Improvement

Staff is monitoring the number of accounts turned-off for non-payment to determine trend directions. No actions are contemplated at this time.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	1,641	1,628	1,638	1,770	1,415	1,795	1,613	1,932	1,687	2,265	1,540	1,461
2014	1,670	1,723	1,675	1,727	1,915	2,077	1,836	1,694	1,518	1,594	993	1,502
2015	1,417	823	1,517	2,920	2,033	2,411	2,016	1,840	2,126			

Sewerage and Water Board of New Orleans

Water and Sewer Receivables 30 to 120 Days Old

EUM Attribute:
Financial Viability

Description: Establishes and maintains an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues

Constituency:
Customer Ratepayers

Objective: Efficient use of resources in providing services

Goal: None established

Currently Meeting Goal: Not Applicable

Process Operating Within Control Limits: **Yes**

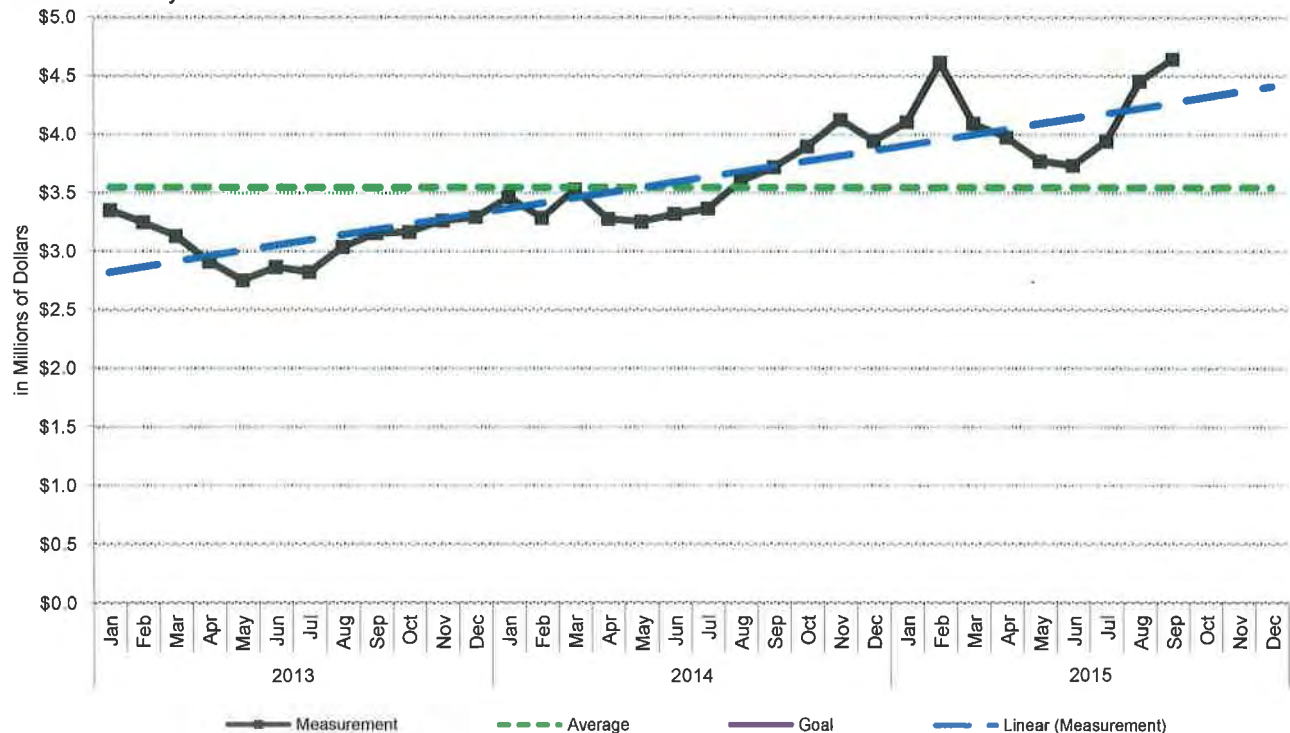
Trend: Level, when adjusted for rate increases.

Analysis

Water and sewer accounts receivable that are 30 to 120 days old are handled by internal staff using service disconnection. When those accounts are turned-off and final bills sent, the remaining balances after 30 days are sent to a collection agency. The uncollectable balances for 2007 and 2008 were higher than normal due to accounts that remained open for vacated facilities and were written off in 2011 and 2012, .

Plans for Improvement

It appears that the higher post-Katrina accounts receivable balances have been resolved through standard collection practices and that annual collection rates now exceed 98% of annual billings. Staff intends to use standard process improvement methods to continue collection practices pending implementation of new billing and collection system.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	\$3.348	\$3.243	\$3.127	\$2.907	\$2.748	\$2.860	\$2.819	\$3.031	\$3.149	\$3.161	\$3.258	\$3.287
2014	\$3.458	\$3.280	\$3.524	\$3.271	\$3.249	\$3.314	\$3.361	\$3.598	\$3.715	\$3.893	\$4.122	\$3.941
2015	\$4.104	\$4.612	\$4.091	\$3.971	\$3.769	\$3.732	\$3.941	\$4.451	\$4.643			

Sewerage and Water Board of New Orleans

Water and Sewer Receivables 120 Days and Older

EUM Attribute:
Financial Viability

Description: Establishes and maintains an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues

Constituency:
Customer Ratepayers

Objective: Efficient use of resources in providing services

Goal: None established

Currently Meeting Goal: Not Applicable

Process Operating Within Control Limits: Yes

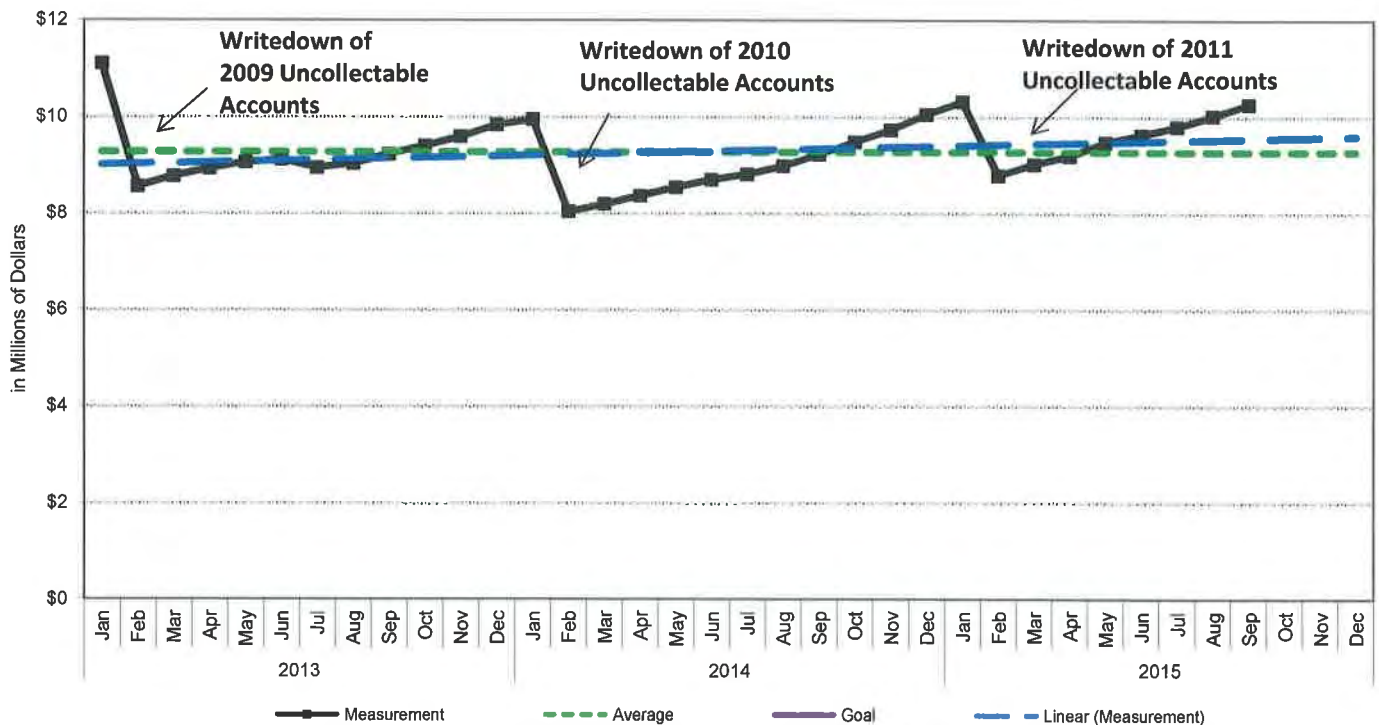
Trend: Level

Analysis

Water and sewer accounts receivable that are 120 days and older are handled by a collection agency. When those accounts remain uncollected after three years, the balances are written off as part of an annual process. The uncollectable balances for 2007 and 2008, which were written off early in 2011 and 2012, were higher than normal due to accounts that remained open post-Katrina for residences and businesses but were not occupied.

Plans for Improvement

It appears that the higher post-Katrina accounts receivable balances have been resolved through standard collection practices and that annual collection rates now exceed 98% of annual billings. Staff intends to use standard process improvement methods to continue collection practices pending implementation of new billing and collection system.



Data Table

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	\$ 11.104	\$ 8.552	\$ 8.766	\$ 8.928	\$ 9.055	\$ 9.113	\$ 8.939	\$ 9.029	\$ 9.224	\$ 9.398	\$ 9.585	\$ 9.839
2014	\$ 9.946	\$ 8.032	\$ 8.185	\$ 8.360	\$ 8.536	\$ 8.694	\$ 8.807	\$ 8.977	\$ 9.218	\$ 9.478	\$ 9.728	\$ 10.046
2015	\$ 10.317	\$ 8.781	\$ 9.012	\$ 9.188	\$ 9.471	\$ 9.625	\$ 9.796	\$ 10.018	\$ 10.261			



SEWERAGE AND WATER BOARD OF NEW ORLEANS

October 19, 2015

Finance and Administration
Sewerage and Water Board of New Orleans
New Orleans, Louisiana

Dear Directors:

Subject: Equal Employment Opportunity Activity Status Report for September 2015

Federal Equal Employment Activity

There have been no new cases filed in 2015.

There are 3 pending EEOC complaints filed prior to 2015 that have not yet been resolved. These complaints are awaiting further action by the EEOC.

Grievances Filed according to General Grievance Policy #26, Equal Employment Opportunity Policy #86 and the Workplace Harassment Policy #87

There has been 0 new grievances filed in September and 12 grievances total in 2015.

Office Visits

Office conferences for counseling of employment issues can be made by appointment or as a walk-in. There were 21 consultations held with 21 separate employees during the month of September.

Grievance Committee Hearings

There are no Grievance Committee Hearing cases pending.

Office Activity

During the month of September, the department has finalized its efforts to submit the Sewerage and Water Board's Federal EEO-04 Report. We were granted an extension to submit this report before October 30th. Meetings with managers and employees have been conducted in regards to a current inquiry. Mr. Lopez has continued to meet with employees whom have filed grievances in the past and has evaluated concerns as well as practices pertaining to the grievance process. At present a proposal is being developed to update the Board's formal grievance process, the department has met with 2 managers and 1 analyst to better develop the new policy.

Robert K. Miller
Deputy Director

Sewerage and Water Board
Department of Emergency Management
“Preparedness, Mitigation, Response, and Recovery”

FEMA Project Update as of **9-23-15**

This data was collected from E.M. Data and Louisiana.com on the above reference date

Prepared by: Jason Higginbotham, CEM, LEM-P
 Director of Emergency Management

Hurricane Katrina

Estimated Project Cost	\$ 850,140,423.46
Obligated Amount	\$ 681,584,697.60
Not Eligible PW ¹	\$ 10,896,751.08
Not Eligible Loan PW ²	\$ 72,607,253.53
Insurance Deduction ³	\$ 2,747,339.04
Insurance Settlement ⁴	\$ 2,303,000.00
Version Request ⁵	\$ 68,597,790.16
Appeal Amount ⁶	\$
Close Out Reconciliation ⁷	\$
Submitted Project Cost	\$ 710,261,350.26
Awaiting Obligation ⁸	\$ 11,285,007.97
Total Invoices in Progress at State	\$ 9,807,887.60
Total Paid by State (LAPA Data)	\$ 388,278,742.32
SPS HMGP Grant	\$ 20,082,538.00
Power Plant HMGP GRANT	\$ 141,175,000.00
Power Plant HMGP Amendment 1	\$ 9,620,389.00

¹ Represents the amount that will not result in payments by FEMA on non-100 Million Dollar P.W.'s.

² Represents the amount that will not result in payments by FEMA on 100 Million Dollar P.W.'s.

³ National Flood Insurance deductions.

⁴ Insurance Settlement

⁵ Amount that FEMA is reviewing documentation to adjust scope of work or cost adjustments

⁶ Amount that is currently under appeal or arbitration.

⁷ Amount that will be reconciled when Project Worksheet's are closed out.

⁸ Amount pending obligation in FEMA Million Dollar Queue or Funding Review Queue.

Hurricane Isaac

This data was collected from E.M. Data and Louisianapa.com

Site	Estimated	Insurance Claim	FEMA Claim	PW Amount
CAT B Emergency Labor/Equipment	\$ 1,217,743.75	\$ -	\$ 1,398,010.67	\$ 1,398,010.67
East Bank Waste Water Treatment Plant	\$ 873,596.00	\$ 367,636.00	\$ 505,960.00	\$ 224,987.37
West Bank Waste Water Treatment Plant	\$ 118,755.00	\$ 38,887.00	\$ 79,868.00	\$ 28,053.10
East Bank Water Plant	\$ 184,556.00	\$ 36,850.00	\$ 174,706.00	\$ 74,678.91
West bank Water Plant	\$ 2,269.74	\$ -	\$ 2,269.74	\$ 2,269.74
Sewer Pumping Stations/DPS	\$ 94,063.80	\$ -	\$ 94,377.90	\$ 80,711.15
Central Yard Roof Repairs	\$ 6,053.60	\$ -	\$ 6,053.60	\$ 6,053.60
Central Yard Fence	\$ 18,836.61		\$ 18,836.61	\$ 18,836.61
Total	\$ 2,515,874.50	\$ 443,373.00	\$ 2,280,082.52	\$ 1,833,601.15

Hurricane Gustav

This data was collected from E.M. Data and Louisianapa.com

Original ESTIMATED PROJECT COST	\$ 750,945.28
PROJECT SUBMITTED AMOUNT	\$ 750,945.28
NFIP Reduction	\$ -
OBLIGATED Amount	\$ 544,884.26
Amount Paid by State	\$ 518,864.38



"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21ST CENTURY"

Sewerage & Water Board OF NEW ORLEANS

MITCHELL J. LANDRIEU, President
WM. RAYMOND MANNING, President Pro-Tem

625 ST. JOSEPH STREET
NEW ORLEANS, LA 70165 • 504-529-2837 OR 52W-ATER
www.swbno.org

September 14, 2015

The Finance and Administration Committee of the Sewerage and Water Board of New Orleans met on Monday, September 14, 2015 at 8:15 AM in the Board Room, 625 St. Joseph Street to consider the following matters.

ATTENDANCE

Present:

Scott Jacobs, Chair
Joseph Peychaud, Vice-Chair
Dr. Tamika Duplessis
Kerri Kane

Absent:

Kimberly Thomas

Others:

Alan Arnold
Wm. Raymond Manning, President Pro-Tem

Also in attendance were Cedric S. Grant, Executive Director; Robert Miller, Deputy Director; Joseph Becker, General Superintendent; Nolan Lambert, Special Counsel; Harold Marchand, Deputy Special Counsel; Robert Jackson, Community & Intergovernmental Relations Administrator; Rosita Thomas, Finance Administrator; Willie Mingo, Purchasing Administrator; Melinda Nelson, Information Systems Administrator; Raymond Gable, Internal Audit Administrator; Shaval Stewart, Executive Office Analyst; Brenda Thornton, Communirep, Inc.

ACTION ITEMS

Item 1

General Superintendent's Recommendations

Mr. Wm. Manning moved to accept the General Superintendent's Recommendations for award of contracts for the items listed below. Mrs. Kane seconded and the motion carried.

- R-159-2015 – First and Final Renewal of Contract 8142 – Repaving Open Cuts in Streets, Driveways, Sidewalks resulting from the Repair to the Sewerage and Water Board of New Orleans Underground Utilities to Fleming Construction Company, Inc. for the total amount of \$2, 471,050.00.
- R-160-2015 – First and Final Renewal of Contract for Furnishing Brass Water Service Fittings – Req. No. YW140098 to A. Y. McDonald Mfg. Co. for the total amount of \$539,902.75.
- R-161-2015 – First and Final Renewal of Contract for Furnishing & Delivering Complete Fleet Tire Service to the Sewerage and Water Board of New Orleans – Req. No. YG140003 to Twin Commercial Tire Service for the total amount of \$344,199.80.

Item 2 Change Orders

Mrs. Kane moved to accept the Ratification of Change Order No. 1 for Contract 8137 – Paving Open Cuts in Streets, Driveways and Sidewalks from the Repair to the Sewerage and Water Board of New Orleans Underground Utilities, therein resolution (R-164-2015). Mr. Wm. Manning seconded and the motion carried.

Mr. Peychaud moved to accept the Change Order No. 8 for Contract 5221 – Hurricane Katrina Related Repairs to Pontchartrain Boulevard Drainage Underpass Pumping Station, therein resolution (R-165-2015). Mrs. Kane seconded and the motion carried.

Mr. Wm. Manning moved to accept the Change Order No. 6 for Contract 5222 – Hurricane Katrina Related Repairs to Canal Boulevard Drainage Underpass Pumping Station, therein resolution (R-166-2015). Dr. Duplessis seconded and the motion carried.

Mrs. Kane moved to accept the Change Order No. 6 for Contract 5223 – Hurricane Katrina Related Repairs to St. Bernard Avenue Drainage Underpass Pumping Station, therein resolution (R-167-2015). Mr. Peychaud seconded and the motion carried.

Dr. Duplessis moved to accept the Change Order No. 8 for Contract 5226 – Hurricane Katrina Related Repairs to Franklin Avenue Drainage Underpass Pumping Station, therein resolution (R-168-2015). Mr. Wm. Manning seconded and the motion carried.

Item 3 2015 Independent Financial Auditing Services (Postlethwaite & Netterville)

Mr. Miller recommended the third year renewal option of four (4) one (1) year renewal options for independent financial auditing services with Postlethwaite & Netterville and Bruno and Tervalon for a total amount of \$87,500.00

Mr. Wm. Manning moved to approve the 2015 Independent Financial Auditing Services Contract. Mrs. Kane seconded and the motion carried.

Item 4 Expansion of Cogsdale Software for Human Resources/Payroll Modules

Mr. Manning moved to approve the Expansion of Cogsdale Software Contract to include the Human Resources/Payroll Modules therein as described in resolution (R-163-2015). Mrs. Kane seconded and the motion carried.

Item 5 Executive Session

The Committee went into closed session to discuss the following matters under litigation:

- Rose Powell v. Sewerage and Water Board of New Orleans, et al, CDC No. 2012-03988, Div. "N", Sec. 8
- Keisha Quinn Moore, et al v. Danial Smith, et al, CDC No. 2014-3581, Div. "M"

After returning from closed session, Mrs. Kane moved to approve staff's recommendations regarding these litigation matters. Mr. Peychaud seconded and the motion carried.

PRESENTATION ITEMS

Item 6 Mr. Miller presented a summary of financial results through July 2015 including four components as follows: Prior Year Variances, Budget Variances, Days of Cash, and Projected Debt Service Coverage Times.

Item 7 Mr. Grant presented a plan for upcoming Finance and Administration Committee meetings and agendas including these topics:

- 2016 Operating Budget
- 2016 Capital Budget
- 2016 Financial Plan
- Long-Range Funding Requirements for Drainage System
- Series 2016 Bond Issues
- Establishment of Performance Metrics

INFORMATION ITEMS

Items 8 – 12 The Committee received all information items.

ADJOURNMENT

There being no further business to come before the Committee, the meeting adjourned at 9:25 AM.

Respectfully submitted,

Mr. Scott Jacobs, Chair