

SEWERAGE & WATER BOARD OF NEW ORLEANS

FINANCE AND ADMINISTRATION COMMITTEE MEETING

WEDNESDAY, MARCH 13, 2019

9:00 AM

6 2 5 S T . J O S E P H S T R E E T
2 ^N D F L O O R B O A R D R O O M

Lynes Sloss, Chair • Tamika Duplessis
Joseph Peychaud • Ralph Johnson • Alejandra Guzman

FINAL AGENDA

ROLL CALL

ACTION ITEMS

1. General Superintendent's Recommendations- Final Acceptance

- a. Resolution (R-002-2019) Ratification of Change Order No. 1 and Final Acceptance for CO-17-0010 - Emergency Repairs for Turbine 3 Phase I
- b. Resolution (R-029-2019) Reconciliation and Final Acceptance for Contract 30203 – Restoration of Gravity Flow Sewer Mains by Point Repair at Various Sites Throughout Orleans Parish
- c. Resolution (R-031-2019) Reconciliation and Final Acceptance for Contract 2126 – Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites Throughout Orleans Parish
- d. Resolution (R-032-2019) Reconciliation and Final Acceptance for Contract 2136 – Emergency Repair Contractor for Winter Freeze (INGA) – Water Main Point Main Repair, Water Service Connection, Water Valve and Fire hydrant replacement at various sites throughout Orleans Parish
- e. Resolution (R-035-2019) Reconciliation and Final Acceptance for Contract 2135 – Emergency Repair Contractor for Winter Freeze (INGA) – Water Main Point Main Repair, Water Service Connection, Water Valve and Fire hydrant replacement at various sites throughout Orleans Parish
- f. Resolution (R-039-2019) Ratification of Change Order No. 1 and Final Acceptance for Contract CO-17-0019 – Emergency Repairs for Turbine 3 Phase II
- g. Resolution (R-040-2019) Final Acceptance for Contract ME 17-0020 – Emergency Temporary Generators at Eight (8) Drainage Underpass Stations
- h. Resolution (R-041-2019) Final Acceptance for Contract EE 17-0023 – Accelerate Scope Associated with Power Emergency Event for Contract 6259
- i. Resolution (R-044-2019) Final Acceptance for Contract EE 17-0015 –EMD SCADA Project

- j. Resolution (R-045-2019) Final Acceptance for Contract EE 17-0007 – Emergency Generator Rentals at Station “D”
- k. Resolution (R-046-2019) Final Acceptance for Contract EE-17-0011-Furnishing 6.6 KV. 3000A Switchgear Equipment for STG No. 4

2. Amendments and Change Orders

- l. Resolution (R-021-2019) Amendment No.5 to the Agreement Between the Sewerage and Water Board of New Orleans and G.E.C., Inc. for Hurricane Katrina Related Drainage Restoration – Broad Underpass Pump Station Design
- m. Resolution (R-023-2019) Ratification of Change Order No. 2 for Contract 30014 – Cleaning and CCTV Inspection of Sanitary Sewer Mains as Scattered Sites Within Orleans Parish
- n. Resolution (R-038-2019) Contract Amendment No. 8 Stanley Consultants, Inc. Water Hammer Hazard Mitigation Project
- o. Resolution (R-042-2019) GEE CEE, Construction, Co. LLC
- p. Resolution (R-043-2019) Amendment No. 7 to the Agreement between the Sewerage and Water Board of New Orleans and Jacobs

3. Contracts

- q. Resolution (R-054-2019) Amendment No. 3 to Professional Services Agreement with Richard CPAS

PRESENTATION ITEMS

- r. Water Loss Audit
- s. Procurement Policies and Procedures Overview

INFORMATION ITEMS

- t. Executive Director's Approval of Contracts of \$1,000,000.00 or less
- u. General Superintendent's Recommendations
- v. January Monthly Financials
- w. FEMA Report
- x. DBE Participation on Contracts
- Bid Recommendations
- Construction Review Committee
- Staff Contract Review Committee
- Final Acceptance of Construction Contracts with DBE Participation
- First and Final Acceptance Contracts with DBE Participation
- y. Green Infrastructure in New Orleans

EXECUTIVE SESSION

PUBLIC COMMENT

ADJOURNMENT

**RATIFICATION OF CHANGE ORDER NO. 1 AND FINAL ACCEPTANCE OF
CONTRACT CO-17-0010 – EMERGENCY REPAIR SERVICES FOR TURBINE 3 PHASE I**

WHEREAS, Contract CO 17-0010 was awarded under emergency procurement for \$500,000.00 in March of 2017; and,

WHEREAS, Change Order No. 1, in the amount of \$2,903,054.75, is composed of twenty-one (21) separate work tasks; and,

WHEREAS, Contract CO 17-0010 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans for the amount of \$3,403,054.75, and

WHEREAS, the General Superintendent in his report has recommended that this contract receive final acceptance; and,

NOW, THEREFORE, BE IT RESOLVED, by the Sewerage and Water Board of New Orleans, that the recommendation of the General Superintendent to ratify Change Order No. 1 and to authorize final acceptance of CO 17-0010, is hereby approved.

I, Ghassan Korban, 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
March 20, 2019.

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

RECONCILIATION AND FINAL ACCEPTANCE FOR CONTRACT NO. 30203 - RESTORATION OF GRAVITY FLOW SEWER MAINS BY POINT REPAIR AT VARIOUS SITES THROUGHOUT ORLEANS PARISH

WHEREAS, the Sewerage and Water Board of New Orleans entered into Contract No. 30203 with Wallace Drennan, Inc. for the amount of \$1,933,496.00; and

WHEREAS, Change Order No.1 was approved by the Board of Directors on September 20, 2017 for the amount of \$1,431,744.90 (R-107-2017); and,

WHEREAS, Wallace Drennan was awarded a one year renewal on December 20, 2017 for the amount of \$1,933,496.00 (R-163-2017); and,

WHEREAS, Change Order No.2 was approved by the Board of Directors on December 19, 2018 for the amount of \$6,769,926.06 (R-195-2018); and,

WHEREAS, the final dollar amount of work performed decreases the value of the contract by \$155,886.16 and extends the duration by zero (0) days; and,

WHEREAS, the Reconciliation and Final Acceptance brings the total contract dollar amount to \$11,912,776.80; and,

WHEREAS, the General Superintendent in his report has recommended that his contract receive final acceptance; and,

NOW, THEREFORE, BE IT RESOLVED, by the Sewerage and Water Board of New Orleans, that the recommendation of the General Superintendent to reconcile and authorize final acceptance is hereby approved.

I, Ghassan Korban, 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
March 20, 2019

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

RECONCILIATION AND FINAL ACCEPTANCE OF CONTRACT 2126 – WATER MAIN POINT REPAIR, WATER VALVE AND FIRE HYDRANT REPLACEMENT AT AVRIOS SITES THROUGHOUT ORLEANS PARISH

WHEREAS, the Sewerage & Water Board of New Orleans entered into Contract 2126 with Wallace Drennan, Inc. for the amount of \$2,944,440.00; and,

WHEREAS, Wallace Drennan was awarded a one year renewal on June 20, 2018 for the amount of \$2,944,440.00; and,

WHEREAS, Change Order No. 1 was approved by the Board of Directors on September 21, 2018 for the amount of \$1,057,548.82; and,

WHEREAS, Change Order No. 2 was approved by the Board of Directors on December 19, 2018 for the amount of \$2,047,526.18; and,

WHEREAS, the final dollar amount of work performed decreases the value of the contract by \$16,035.94 and extended the duration by zero (0) days; and,

WHEREAS, the General Superintendent in his report has recommended that this contract receive final acceptance; and,

NOW, THEREFORE, BE IT RESOLVED, by the Sewerage and Water Board of New Orleans, that the recommendation of the General Superintendent to reconcile and authorize final acceptance of Contract 2126 is hereby approved.

I, Ghassan Korban, 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 March 20, 2019.

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: 2/12/2019

From: Robert Turner, PE
General Superintendent

To: Ghassan Korban
Executive Director

Subject: Contract No. 2126
Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites throughout Orleans Parish
Final Acceptance and Reconciliation

Enclosed please find this Final Acceptance and Reconciliation for the subject contract, which is recommended for approval.

Contract No. 2126 with Wallace C. Drennan, Inc. was for Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites throughout Orleans Parish. The items added or deducted by this change order were either line items required to complete already submitted work orders or items that were overestimated in the bidding process.

All work on this contract has been completed and accepted, including the items added by this change order. Contract 2126 recommended for Final Acceptance and Reconciliation.

By this Change Order, the value of the contract will be decreased by \$74,129.20 and the contract duration will be increased by 0 days.

Please forward this Final Acceptance and Reconciliation to the attention of the appropriate Board committees for their consideration and approval.

cc: M. Ron Spooner, P.E. Chief of Engineering
Steve Bass, P.E. Head of Technical Services
David Cappel, P.E. Senior Engineer
Mark A. Bear Child, Project Manager
Alvin Porter, EDBP
Dexter Joseph, Budget
Legal Dept
Rosita Thomas, Finance
Conestler Green, Purchasing

MJ/MRS

Date: February 25, 2019
From: Fred Tharp, P.E. , Chief of Networks
To: Robert Turner, P.E. , General Superintendent
RE: Contract No.: 2126

Title: Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites throughout Orleans Parish

This is to advise that all work on the above-captioned Contract is now completed and Acceptance of the Contract is recommended.

Contractor:	Wallace Drennan
Lump Sum Bid:	\$0.00
Unit Price BID:	\$2,944,440.00
Total Contract BID:	\$5,888,880.00
Unit Price Extensions to contract:	\$0
No. Change Orders	3
Total Change Order Amount:	\$3,030,945.80
Total Contract Expenditure:	\$8,919,825.80
Change Order Percent Contract BID:	51.47%
Date First Work Order:	07/19/2016
Date Final Work Order:	8/13/2018
Date Final Work Order Completed:	8/31/2018
Incomplete Punchlist Items Credit Due to S&WB:	\$0.00
Contract Liquidated Damages Due to S&WB:	\$0.00
Retainage Including Final Change Orders Due to Contractor:	\$441,504.81
Total Amount Due to S&WB:	\$0.00
Total Amount Eligible For Fema Reimbursement:	\$0.00
Total Contract Amount <u>NOT</u> Eligible for Fema Reimbursement:	\$8,919,825.80
Source Of Funds: O&M	
DBE Participation Goal	36%
DBE Participation Achieved	47.62%



Mark A. Bear Child, EIT
Project Manager



Steve Bass, P.E.,
Head of Technical Services

**SCOPE OF CHANGES
CONTRACT 2126:
(PLAN CHANGE NO. 3)**

ITEMS TO BE ADDED / DELETED TO CONTRACT

ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE		REVISED		CHANGE ORDER #2		DIFFERENCE	
			QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT
1	Rem/Rep Water Meter Box 5/8" To 1" W/slab & Fittings	EACH	356.00	\$ 35,600.00	800.00	\$800.00	-444.00	(\$44,400.00)		
2	Rem/Rep 3/4"-2" Service-Meter To P.L. 4"-20" Tap	LF	9737.00	\$ 9,737.00	32000.00	\$320.00	-22263.00	(\$22,263.00)		
3	4"-12" Water Pt Rep W/Clamp Only	EACH	41.00	\$ 41,000.00	240.00	\$2,400.00	-199.00	(\$199,000.00)		
4	16"-20" Water Pt Rep W/Clamp Only	EACH	5.00	\$ 22,000.00	4.00	\$176.00	1.00	\$4,400.00		
5	24"-30" Water Pt Rep W/Clamp Only	EACH	0.00	\$ -	4.00	\$192.00	-4.00	(\$19,200.00)		
6	4"-12" Water Pt Rep W/Bell Jnt Leak Clamp	EACH	81.00	\$ 81,000.00	400.00	\$4,000.00	-319.00	(\$319,000.00)		
7	16"-20" Water Pt Rep W/Bell Jnt Leak Clamp	EACH	5.00	\$ 16,500.00	10.00	\$330.00	-5.00	(\$16,500.00)		
8	24"-30" Water Pt Rep W/Bell Jnt Leak Clamp	EACH	4.00	\$ 26,400.00	8.00	\$528.00	-4.00	(\$26,400.00)		
9	36"-48" Water Pt Rep W/Bell Jnt Leak Clamp	EACH	5.00	\$ 83,000.00	40.00	\$6,640.00	-35.00	(\$581,000.00)		
10	4"-8" Water Pt Rep 6'-12' Pipe	EACH	59.00	\$ 519,200.00	105.00	\$9,240.00	-46.00	(\$404,800.00)		
11	4"-8" Water Main Beyond Point Repair	LF	432.00	\$ 380,160.00	570.00	\$5,016.00	-138.00	(\$121,440.00)		
12	10"-12" Water Pt Rep 6'-12' Pipe	EACH	10.00	\$ 99,000.00	20.00	\$1,980.00	-10.00	(\$99,000.00)		
13	10"-12" Water Main Beyond Point Repair	LF	17.00	\$ 16,830.00	120.00	\$1,188.00	-103.00	(\$101,970.00)		
14	16"-20" Water Pt Rep 6'-12' Pipe	EACH	2.00	\$ 30,000.00	6.00	\$900.00	-4.00	(\$60,000.00)		
15	16"-20" Water Main Beyond Point Repair	LF	4.00	\$ 6,000.00	12.00	\$180.00	-8.00	(\$12,000.00)		
16	24"-30" Water Pt Rep 6'-12' Pipe	EACH	0.00	\$ -	6.00	\$120.00	-6.00	(\$12,000.00)		
17	24"-30" Water Main Beyond Point Repair	LF	0.00	\$ -	12.00	\$60.00	-12.00	(\$6,000.00)		
18	36"-48" Water Pt Rep 6'-12' Pipe	EACH	1.00	\$ 66,000.00	2.00	\$1,320.00	-1.00	(\$66,000.00)		
19	36"-48" Water Main Beyond Point Repair	LF	0.00	\$ -	12.00	\$120.00	-12.00	(\$12,000.00)		
20	Rem/Rep FH/Base W/lead	EACH	61.00	\$ 170,800.00	200.00	\$5,600.00	-139.00	(\$389,200.00)		
21	Rem/Rep 4"-8" Water Valve W/Fittings	EACH	23.00	\$ 62,100.00	120.00	\$3,240.00	-97.00	(\$261,900.00)		
22	Rem/Rep 10"-12" Water Valve W/Fittings	EACH	4.00	\$ 12,400.00	30.00	\$930.00	-26.00	(\$80,600.00)		
23	Rem/Rep 16"-20" Water Valve W/Fittings	EACH	2.00	\$ 8,800.00	10.00	\$440.00	-8.00	(\$35,200.00)		
24	Rem/Rep 24"-30" Water Valve W/Fittings	EACH	0.00	\$ -	4.00	\$308.00	-4.00	(\$30,800.00)		
25	Manhole Or Vault For Water Valve (Brick)	VF	95.00	\$ 9,500.00	400.00	\$400.00	-305.00	(\$30,500.00)		
26	Valve Box W/Cover For Water Valve	EACH	3.00	\$ 30.00	20.00	\$2.00	-17.00	(\$170.00)		
27	Saw Cut Existing Roadways	LF	24853.60	\$ 969,290.40	9600.00	\$3,744.00	15253.60	\$594,890.40		
28	Rem / Rep Reinf Conc Rdwy Various 8"	SY	11510.91	\$ 2,071,963.80	6650.00	\$11,970.00	4860.91	\$874,983.80		
29	Rem / Rep Reinf Conc Rdwy Panels 8"	SY	0.00	\$ -	200.00	\$380.00	-200.00	(\$38,000.00)		
30	Cold Mill Asphalt For Street Repairs	SY	0.00	\$ -	1000.00	\$10.00	-1000.00	(\$1,000.00)		
31	Asphalt Pavement Restoration Various 5"	SY	8851.23	\$ 1,770,246.00	5900.00	\$11,800.00	2951.23	\$590,246.00		
32	2" Asphalt Overlay Various	SY	5317.19	\$ 467,912.72	5800.00	\$5,104.00	-482.81	(\$42,487.28)		
33	2" Asphalt Overlay Entire Roadway	SY	0.00	\$ -	1000.00	\$330.00	-1000.00	(\$33,000.00)		
34	Conc Mount/Barrier Curb And Gutter Restoration	LF	6565.50	\$ 656,550.00	800.00	\$800.00	5765.50	\$576,550.00		
35	Granite Curb W/Conc Base Restoration	LF	185.50	\$ 18,550.00	100.00	\$100.00	85.50	\$8,550.00		

ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE	REVISED		CHANGE ORDER #2		DIFFERENCE	
				QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT
36	D/W Restoration 6"	SY	\$77.00	1156.35	\$ 89,038.95	1300.00	\$1,001.00	-143.65	(\$11,061.05)
37	D/W Restoration 6" Gravel Finish	SY	\$78.00	0.00	\$ -	60.00	\$46.80	-60.00	(\$4,680.00)
38	D/W Restoration 6" Brick Finish	SY	\$80.00	59.04	\$ 4,723.20	60.00	\$48.00	-0.96	(\$76.80)
39	Sidewalk Restoration 4"	SY	\$60.00	1558.57	\$ 93,514.20	2200.00	\$1,320.00	-641.43	(\$38,485.80)
40	Sidewalk Restoration 4" Brick	SY	\$68.00	97.62	\$ 6,638.16	40.00	\$27.20	57.62	\$3,918.16
41	Sidewalk Restoration 4" Stone	SY	\$70.00	3.56	\$ 249.20	40.00	\$28.00	-36.44	(\$2,550.80)
42	Sidewalk Restoration 4" Gravel	SY	\$67.00	5.28	\$ 353.76	40.00	\$26.80	-34.72	(\$2,326.24)
43	HC Ramp Restoration/Installation	SY	\$600.00	151.64	\$ 90,984.00	170.00	\$1,020.00	-18.36	(\$11,016.00)
44	Batture Sand /Sod Replacement	SY	\$10.00	58.22	\$ 582.20	100.00	\$10.00	-41.78	(\$417.80)
45	Temporary Asphalt Pave 1.5"	SY	\$146.00	166.17	\$ 24,260.82	1000.00	\$1,460.00	-833.83	(\$121,739.18)
46	Permit w/ Traffic Plan for Work On Notification Street	EACH	\$50.00	0.00	\$ -	100.00	\$50.00	-100.00	(\$5,000.00)
47	Permit w/ Traffic Plan for Work on State Roads	EACH	\$100.00	0.00	\$ -	16.00	\$16.00	-16.00	(\$1,600.00)
48	Traffic Controls for Work on State Roads	EACH	\$1,000.00	0.00	\$ -	16.00	\$160.00	-16.00	(\$16,000.00)
49	Traffic Controls for Work on Notification Streets	EACH	\$50.00	0.00	\$ -	100.00	\$50.00	-100.00	(\$5,000.00)
X-1	6" Bell Joint Leak Clamp Credit	EACH	(\$164.59)	1.00	\$ (164.59)	0.00	\$0.00	1.00	(\$164.59)
X-2	4" Insert-A-Valve	EACH	\$11,500.00	5.00	\$ 57,500.00	0.00	\$0.00	5.00	\$57,500.00
X-3	6" Insert-A-Valve	EACH	\$12,300.00	6.00	\$ 73,800.00	0.00	\$0.00	6.00	\$73,800.00
X-4	8" Insert-A-Valve	EACH	\$13,400.00	0.00	\$ -	0.00	\$0.00	0.00	\$0.00
X-5	10" Insert-A-Valve	EACH	\$17,800.00	0.00	\$ -	0.00	\$0.00	0.00	\$0.00
X-6	12" Insert-A-Valve	EACH	\$19,900.00	4.00	\$ 79,600.00	0.00	\$0.00	4.00	\$79,600.00
X-7	Extra Thickness Per Square Yard - Asphalt	SY	\$40.00	6996.32	\$ 279,852.80	0.00	\$0.00	6996.32	\$279,852.80
X-8	Extra Thickness Per Square Yard - Concrete	SY	\$22.50	229.81	\$ 5,170.73	0.00	\$0.00	229.81	\$5,170.73
X-9	Railroad Crossing Casing @ N Villere & Japonica	LS	\$6,950.00	1.00	\$ 6,950.00	0.00	\$0.00	1.00	\$6,950.00
X-10	20" Linestop @ Louisville & Bragg	LS	\$89,785.00	1.00	\$ 89,785.00	1.00	\$89,785.00	0.00	\$0.00
X-11	30" Line Stop @ Michoud Water Tower	LS	\$162,145.00	1.00	\$ 162,145.00	1.00	\$162,145.00	0.00	\$0.00
X-12	30" Line Stop @ Read & Andover	LS	\$148,845.00	1.00	\$ 148,845.00	1.00	\$148,845.00	0.00	\$0.00
X-13	Sycamore @ Leonidas 43" Exploratory Excavation	LS	\$41,481.59	1.00	\$ 41,481.59	0.00	\$0.00	1.00	\$41,481.59
X-14	Franklin Avenue @ Lakeshore Drive 12" WM Work	LS	\$4,462.90	1.00	\$ 4,462.90	0.00	\$0.00	1.00	\$4,462.90
X-15	3701 Tall Pines & Tall Oaks Extra Work	LS	\$9,482.96	1.00	\$ 9,482.96	0.00	\$0.00	1.00	\$9,482.96
ADDITIONAL CONTRACT DAYS				TOTAL	\$8,919,825.80	TOTAL	\$8,993,955.00	TOTAL	(\$74,129.20)
REQUESTED	0	OVER RUN	UNDER RUN						

Original Contract Days: 730
Contract Days Previously Added: 0
Contract Days THIS CHANGE ORDER: 0
REVISED Contract Days: 730

Original Contract Amount: \$5,888,880.00
Amount of Previous Change Orders: \$3,105,075.00
Additional Dollar Amount THIS CHANGE ORDER: (\$74,129.20)
REVISED Contract Amount: \$8,919,825.80

Percent of Original Contract Amount THIS CHANGE ORDER: -1.26%
Percent of Original Contract Amount PREVIOUS CUMULATIVE CHANGE ORDERS: 52.73%
Percent of Original Contract Amount ALL CUMULATIVE CHANGE ORDERS: 51.47%

ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE	REVISED		CHANGE ORDER #2		DIFFERENCE	
				QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT
DBE Participation for this Contract:				36.00%					
It is mutually agreed to perform & accept the above revisions in accordance with original contract & applicable specifications at the above prices.									
PROPOSED BY:									
Wallace C. Drennan, Inc.									
Contractor									
RECOMMENDED BY:									
Mark A. Ben-Chid									
S & WB Project Manager									
		2/14/19		DATE					
		2/14/19		DATE					
		APPROVED BY:		Chief of Networks					
		DATE		DATE					

PHONE
(504) 828-8000
FAX
(504) 836-2939

WCD
Wallace C.
Drennan, Inc.
General Contractors
P.O. BOX 18438
NEW ORLEANS, LA 70175-8438

LA CONTRACTOR'S
LICENSE NO. 1033

January 22, 2019

E-MAIL

Mr. Mark Bear Child, E.I
Sewerage and Water Board
of New Orleans
2900 Peoples Ave., Room 202
New Orleans, LA 70122

RE: S&WB Contract 2126: Water Main Point Repair, Water
Service Connection, Water Valve and Fire Hydrant
Replacement at Various Sites throughout Orleans Parish
WCD 3273 (003) Final Acceptance

Dear Mr. Bear Child:

We are respectfully requesting final acceptance for the above-referenced project as of
Monday, December 31st, 2018..

Thank you for your cooperation. Should you have any additional questions, please feel
free to contact me. We await your reply.

Very truly yours,

WALLACE C. DRENNAN, INC.



Carmelo Gutierrez, P.E.

cc: Mr. Fred Tharpe, P.E.
cc: Mr. Steven Bass, P.E.
cc: Mr. David Cappel, P.E.

Teresa Deemer

**FINAL ACCEPTANCE FOR CONTRACT 2136 – EMERGENCY REPAIR
CONTRACT FOR WINTER FREEZE (INGA) – WATER MAIN POINT REPAIR,
WATER SERVICE CONNECTION, WATER VALVE AND FIRE HYDRANT
REPLACEMENT AT VARIOUS SITES THROUGHOUT ORLEANS PARISH**

WHEREAS, the Sewerage and Water Board of New Orleans requested pricing from Grady-Crawford Construction for Emergency Services during the 2018 Winter Storm Event (Inga) and entered into Contract 2136 with Grady-Crawford Construction for the amount of \$1,117,409.00, and

WHEREAS, the Contractor provided water point repair services under this contract under an emergency basis for damages reported throughout the City during the Winter Storm, and

WHEREAS, the work completed by Grady-Crawford was in the amount of \$643,526.05, thus having a deductive balance of (\$473,882.95) to the original Contract value; and

WHEREAS, Contract 2136 is ready for Final Acceptance and Reconciliation by the Sewerage & Water Board of New Orleans; and

NOW THEREFORE BE IT RESOLVED, the approval of Final Acceptance and reconciliation for Contract 2136 is ratified by the Sewerage and Water Board of New Orleans and Recognition of Final Acceptance is hereby approved.

I, Ghassan Korban, 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 said Board,
duly called and held, according to law, on
March 20, 2019.

Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: 2/27/2019

From: Robert Turner, PE
General Superintendent

To: Ghassan Korban
Executive Director

Subject: Contract No. 2136 – Grady-Crawford
Emergency Repair Contract for Winter Freeze Event (Inga) – Water Main Point
Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at
Various Sites throughout Orleans Parish
Final Acceptance

Followed herewith please find the Final Acceptance Documents for the subject contract, which is recommended for approval.

Under declaration of Extreme Emergency Contract No. 2136 with Grady-Crawford Construction was required to assist with the damages to S&WB infrastructure resulting from the Winter Freeze Event, named Inga, starting on January 16, 2018. The actual work completed on this contract was in the amount of \$643,526.05, which is \$473,882.95 less than the contracted amount of \$1,117,409.00.

All work on this contract has been completed and accepted. Contract 2136 recommended for Final Acceptance and Reconciliation.

Please forward this information to the attention of the appropriate Board committees for their consideration and approval.

cc: M. Ron Spooner, P.E. Chief of Engineering
Fred Tharp, P.E, Chief of Networks
Steve Bass, P.E. Head of Technical Services
David Cappel, P.E. Senior Engineer
Mark Bearchild, Project Manager
Alvin Porter, EDBP
Dexter Joseph, Budget
Legal Dept
Rosita Thomas, Finance
Conestler Green, Purchasing

DC/RT

SEWERAGE & WATER BOARD OF NEW ORLEANS

- FINAL ACCEPTANCE STATEMENT -

DATE: February 27, 2019

FROM: Fred Tharp, P.E. Chief of Networks

TO: Robert Turner, P.E. General Superintendent

RE: **Contract No.:** 2136

CC: Steve Bass, Mark Bear Child

TITLE: **Contract 2136 - Emergency Repair Contract for Winter Freeze Event (Inga) – Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites Throughout Orleans Parish.**

This is to advise that all work on the above-captioned Contract is now completed and acceptance of the Contract is recommended.

CONTRACTOR:	Grady-Crawford Construction Co.
ORIGINAL CONTRACT SUM:	\$0.00
LUMP SUM BID:	\$0.00
UNIT PRICE BID:	\$1,117,409.00
TOTAL CONTRACT BID:	\$1,117,409.00
UNIT PRICE EXTENSIONS TO CONTRACT:	0
NO. CHANGE ORDERS:	0
TOTAL CHANGE ORDER AMOUNT:	(\$473,882.95)
(Do not include unit price work in Change Orders)	
TOTAL CONTRACT EXPENDITURE:	\$643,526.05
CHANGE ORDERS AS PER CENT OF LUMP SUM AND UNIT PRICE BID TOTAL:	-42%
DATE WORK ORDER ISSUED:	23-Jan-18
DATE WORK ACCEPTED:	4-Jan-19
RETAINAGE INCLUDING FINAL CHANGE ORDER DUE TO CONTRACTOR:	\$0.00
CONTRACT DBE Participation goal:	36.0%
CONTRACT DBE Participation achieved: (Documentation approved by DBE Dept.)	18.7%
TOTAL CONTRACT AMOUNT ELIGIBLE FOR FEMA REIMBURSEMENT:	\$0.00
TOTAL CONTRACT AMOUNT ELIGIBLE FOR MITIGATION FEMA REIMBURSEMENT:	\$0.00
TOTAL CONTRACT AMOUNT <u>NOT</u> ELIGIBLE FOR FEMA REIMBURSEMENT:	\$643,526.05



David Cappel, P.E.
Technical Services



Steve Bass, P. E.
Head of Technical Services

**RECONCILIATION AND FINAL ACCEPTANCE FOR CONTRACT 2135 –
EMERGENCY REPAIR CONTRACT FOR WINTER FREEZE (INGA) –
WATER MAIN POINT REPAIR, WATER SERVICE CONNECTION, WATER
VALVE AND FIRE HYDRANT REPLACEMENT AT VARIOUS SITES
THROUGHOUT ORLEANS PARISH**

WHEREAS, the Sewerage and Water Board of New Orleans requested pricing from Boh Bros. Construction for Emergency Services during the 2018 Winter Storm Event (Inga) and entered into Contract 2135 with Boh Bros Construction for the amount of \$1,172,290.00; and,

WHEREAS, the Contractor provided water point repair services under this contract under an emergency basis for damages reported throughout the City during the Winter Storm; and,

WHEREAS, the work completed by Boh Bros. was in the amount of \$1,107,848.63, thus having a deductive balance of (\$64,441.37) to the original Contract value; and,

WHEREAS, the General Superintendent in his report has recommended that this contract receive final acceptance; and

NOW THEREFORE BE IT RESOLVED, by the Sewerage and Water Board of New Orleans, that the recommendation of the General Superintendent to reconcile and authorize final acceptance of Contract 2126 is hereby approved.

I, Ghassan Korban, 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 said Board,
duly called and held, according to law, on
March 20, 2019.

Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: 2/27/2019

From: Robert Turner, PE
General Superintendent

To: Ghassan Korban
Executive Director

Subject: Contract No. 2135
Emergency Repair Contract for Winter Freeze Event (Inga) – Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites throughout Orleans Parish
Final Acceptance

Followed herewith please find the Final Acceptance Documents for the subject contract, which is recommended for approval.

Under declaration of Extreme Emergency Contract No. 2135 with Boh Bros. Construction was for required to assist with the damages to S&WB infrastructure resulting from the Winter Freeze Event, named Inga, starting on January 16, 2018. The actual work completed on this contract was in the amount of \$1,107,748.63, which is \$64,441.37 less than the contracted amount of \$1,172,290.00.

All work on this contract has been completed and accepted. Contract 2135 recommended for Final Acceptance and Closeout with Reconciliation.

Please forward this information to the attention of the appropriate Board committees for their consideration and approval.

cc: M. Ron Spooner, P.E. Chief of Engineering
Fred Tharp, P.E, Chief of Networks
Steve Bass, P.E. Head of Technical Services
David Cappel, P.E. Senior Engineer
Mark Bearchild, Project Manager
Alvin Porter, EDBP
Dexter Joseph, Budget
Legal Dept
Rosita Thomas, Finance
Conestler Green, Purchasing

DC/BT

SEWERAGE & WATER BOARD OF NEW ORLEANS

- FINAL ACCEPTANCE STATEMENT -

DATE: February 27, 2019

FROM: Fred Tharp, P.E. Chief of Networks

TO: Robert Turner, P.E. General Superintendent

RE: **Contract No.:** 2135

CC: Steve Bass, Mark Bear Child

TITLE: **Contract 2135 - Emergency Repair Contract for Winter Freeze Event (Inga) – Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites Throughout Orleans Parish.**

This is to advise that all work on the above-captioned Contract is now completed and acceptance of the Contract is recommended.

CONTRACTOR:	Boh Bros. Construction Co., LLC
ORIGINAL CONTRACT SUM:	\$0.00
LUMP SUM BID:	\$0.00
UNIT PRICE BID:	\$1,172,290.00
TOTAL CONTRACT BID:	\$1,172,290.00
UNIT PRICE EXTENSIONS TO CONTRACT:	0
NO. CHANGE ORDERS:	0
RECONCILED AMOUNT:	(\$64,441.37)
(Do not include unit price work in Change Orders)	
TOTAL CONTRACT EXPENDITURE:	\$1,107,848.63
RECONCILED AMOUNT AS PER CENT OF UNIT PRICE BID TOTAL:	-5%
DATE WORK ORDER ISSUED:	23-Jan-18
DATE WORK ACCEPTED:	12-Feb-19
RETAINAGE INCLUDING FINAL CHANGE ORDER DUE TO CONTRACTOR:	\$0.00
CONTRACT DBE Participation goal:	36.0%
CONTRACT DBE Participation achieved:	65.1%
TOTAL CONTRACT AMOUNT ELIGIBLE FOR FEMA REIMBURSEMENT:	\$0.00
TOTAL CONTRACT AMOUNT ELIGIBLE FOR MITIGATION FEMA REIMBURSEMENT:	\$0.00
TOTAL CONTRACT AMOUNT NOT ELIGIBLE FOR FEMA REIMBURSEMENT:	\$1,107,848.63



David Cappel, P.E.
Technical Services



Steve Bass, P. E.
Head of Technical Services

**FINAL ACCEPTANCE TO CONTRACT CO-17-0019 – EMERGENCY REPAIR SERVICES
FOR TURBINE 3 PHASE II**

WHEREAS, Contract CO 17-0019 was awarded under emergency procurement for \$777,186.87, and

WHEREAS, Change orders were approved for the amount of \$939,567.90, and

WHEREAS, Contract CO 17-0019 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans for the amount of \$1,716,754.77, and

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

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 Siemens. CO 17-0019 for Contract, is hereby approved.

I, Ghassan Korban, 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 March 20, 2019.

GHASSAN KORBAN,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

FINAL ACCEPTANCE OF CONTRACT ME 17-0020 - EMERGENCY TEMPORARY GENERATORS AT 8 DRAINAGE UNDERPASS STATIONS

WHEREAS, Contract ME 17-0020 was awarded under emergency procurement on September 21, 2017 (R-082-2017); and,

WHEREAS, Contract ME 17-0020 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans; and,

WHEREAS, the General Superintendent in his report has recommended this contract receive final acceptance; and,

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 to Industrial & Mechanical Contractors, Inc., for Contract ME 17-0020, is hereby approved.

I, Ghassan Korban, 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 March 21, 2019.

Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**FINAL ACCEPTANCE OF CONTRACT ME 17-0023 - ACCELERATE SCOPE
ASSOCIATED WITH POWER EMERGENCY EVENT FOR CONTRACT 6259**

WHEREAS, Contract ME 17-0023 was awarded under emergency procurement on September 21, 2017 (R-082-2017) for the amount of \$312,113.42; and,

WHEREAS, Contract ME 17-0023 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans; and,

WHEREAS, the General Superintendent in his Report has recommended this contract receive final acceptance; and,

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 to Industrial & Mechanical Contractors, Inc. for Contract ME 17-0023, is hereby approved.

I, Ghassan Korban, 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 March 21, 2018.

Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

FINAL ACCEPTANCE OF CONTRACT EE 17-0015 – EMD SCADA PROJECT

WHEREAS, Contract EE 17-0015 was awarded under emergency procurement for \$42,618.07; and,

WHEREAS, the work consisted of the installation of a fiber optic communication panel, hardware for fiber to EMD engines No. 1 and No. 5, command center SCADA hardware/software and, remote SCADA hardware/software; and,

WHEREAS, Contract EE 17-0015 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans for the amount of \$42,618.07; and,

WHEREAS, the General Superintendent in his report has recommended that this contract receive final acceptance; and,

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 of Contract EE 17-0015, is hereby approved.

I, Ghassan Korban, 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 March 20, 2019.

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**FINAL ACCEPTANCE OF CONTRACT EE 17-0007 – TEMPORARY GENERATOR
RENTALS AT DRAINAGE PUMPING STATION D**

WHEREAS, Contract EE 17-0007 was awarded under emergency procurement for \$8,912,736.68; and,

WHEREAS, the work consisted of temporary generator rentals at Drainage Pumping Station "D"; and,

WHEREAS, Contract EE 17-0007 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans for the amount of \$8,574,997.40; and,

WHEREAS, the General Superintendent in his report has recommended that this contract receive final acceptance; and,

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 of Contract EE 17-0007, is hereby approved.

I, Ghassan Korban, 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 March 20, 2019.

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**FINAL ACCEPTANCE OF CONTRACT EE 17-0011 – FURNISHING SWITCHGEAR
EQUIPMENT FOR STG NO. 4**

WHEREAS, Contract EE 17-0011 was awarded under emergency procurement for \$647,664.00; and,

WHEREAS, the work consisted of the furnishing a 6.6KV, 3000A switchgear equipment; and,

WHEREAS, Contract EE 17-0011 is ready for Final Acceptance by the Sewerage & Water Board of New Orleans for the amount of \$638,219.86; and,

WHEREAS, the General Superintendent in his report has recommended that this contract receive final acceptance; and,

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 of Contract EE 17-0011, is hereby approved.

I, Ghassan Korban, 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 March 20, 2019.

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

RESOLUTION OF AMENDMENT NO. 5 TO THE AGREEMENT BETWEEN THE SEWERAGE AND WATER BOARD OF NEW ORLEANS AND G.E.C., Inc. FOR HURRICANE KATRINA RELATED DRAINAGE RESTORATION - BROAD UNDERPASS PUMP STATION DESIGN

WHEREAS, on June 26, 2015 the Sewerage and Water Board of New Orleans (Board) awarded a contract to G.E.C., Inc. in the amount of \$57,000 to perform design and bid support services for the Hurricane Katrina Related Water Restoration Project Repairs to Broad Street Underpass Drainage Pumping Station (R-079-2015); and,

WHEREAS, on September 21, 2016, the Board amended G.E.C., Inc.'s contract in the amount of \$181,488.25 to provide additional engineering design services and construction management services for the Hurricane Katrina Related Water Restoration Project Repairs to Broad Street Underpass Drainage Pumping Station (R-135-2016); and,

WHEREAS, on October 20, 2017 the Board amended G.E.C., Inc.'s contract in the amount of \$8,417.87 to provide additional engineering design services for the Hurricane Katrina Related Water Restoration Project Repairs to Broad Street Underpass Drainage Pumping Station (R-136-2017); and,

WHEREAS, on February 21, 2018 the Board amended G.E.C., Inc.'s contract in the amount of \$57,000 to provide additional construction management services for the Hurricane Katrina Related Water Restoration Project Repairs to Broad Street Underpass Drainage Pumping Station (R-007-2018); and,

WHEREAS, on July 18, 2018 the Board amended G.E.C., Inc.'s contract in the amount of \$118,486.77 to provide additional construction management services for the Hurricane Katrina Related Water Restoration Project Repairs to Broad Street Underpass Drainage Pumping Station (R-100-2018); and,

WHEREAS, This Contract Amendment No. 5 in the amount of \$85,000 is for Additional Engineering services for construction management services and engineering design services extending beyond the contract's scheduled completion date because of the damage to feeder 508; and,

NOW THEREFORE BE IT RESOLVED, that approval of Contract Amendment No. 5 for G.E.C., LLC is ratified by the Sewerage and Water Board of New Orleans.

I, Ghassan Korban, 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 March 20, 2019.

GHASSAN KORBAN
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: March 1, 2019

From: Robert Turner, P.E.
General Superintendent

To: Ghassan Korban
Executive Director

**Re: Contract Amendment No. 5 - Hurricane Katrina Related Repairs for Drainage Restoration Project Additional Engineering Services for G.E.C., Inc.
In Support of SWBNO Construction Contract No. 5225
Hurricane Related Water Restoration Program**

Attached please find a letter from the Deputy General Superintendent recommending approval of the fifth Contract Amendment for Additional Engineering Services performed by G.E.C., Inc.

The scope of services of this Amendment No. 5 includes additional design, construction management and inspection services beyond the completion date of this project to due to damage to feeder 508 at Drainage Pumping Station 3 (DPS3). In May of 2018, Feeder 508 was damaged causing work to temporarily stop until the design of a new route of feeder 508 was incorporated into the overall design of the duct bank to be installed at DPS 3. These addition design services relative to Feeder 508 were not in G.E.C, Inc.'s original scope. As a consequence of the delay due to the damaged electrical feeder, additional construction administration and inspection will be required to finish the project.

Previous Contract Amendments were warranted due to permitting delays caused by the Army Corp of Engineers. The Orleans Levee District required a permit to install a new duct bank via the flood wall between DPS 3 to the Broad Street UPS. As part of the review process, the U.S Army Corp of Engineers was required to review and approve the permit which caused further delays.

This request in the amount of \$85,000 is for Additional Engineering Services to complete repairs for the Broad Street Drainage Underpass Station (see attached Scope of Change spreadsheet). This cost is not eligible for FEMA reimbursement. The current DBE% goal of 36% will remain unchanged through this approved AES request. Previous amendments to this contract totaled \$365,392.89. This Contract Amendment request brings the cumulative total of amendments to \$450,392.89.

I would appreciate you forwarding this request to the attention of the appropriate committees of the Board for their consideration and approval.

Cc: M. Ron Spooner
Randi Jones
Kevin Braxton
Irma Plummer
Dexter Joseph
Rosita Thomas



Sewerage & Water Board

Inter-Office Memorandum

Date: 2/26/2019

From: M. Ron Spooner, P.E.
Chief of Engineering

To: Bruce Adams, P.E.
Deputy Director of Engineering & Construction


Re: AMENDMENT NO. 5 to the Agreement Between
G.E.C., Inc. and The Sewerage and Water Board of New Orleans
Hurricane Related Water Restoration Program
In Support of SWBNO Construction Contract No. 5225

The original agreement between The Sewerage & Water Board of New Orleans and G.E.C, Inc. was for a scope of work to rehab the Broad Street Underpass Station. The scope of work didn't include Construction Management and Inspection Services. Subsequent to the ratification of the agreement the Engineering Department decided to request CA&I services from G.E.C, Inc. Amendments Nos. 1 through 4 provided CA&I services through July 2018. However, damage to feeder 508 caused work stoppage and required a new design for the duct bank to include the new route for feeder 508. It is estimated that the Construction Completion date will be August 2019, thus a need for more CA&I services.

The scope of services of this Amendment No. 5 includes additional services for Construction Administration and Inspection, and additional services for assistance in obtaining permission from the USACE . See attached Scope of Changes Form.

Original Contract Award Amount:	\$57,000.00
Previously Approved Contract	\$365,392.89
This Contract Amendment	\$85,000.00
Total Contract Amendment (% of Original Contract)	790.2%
Total Dollar Contract Amendment Amount:	\$507,392.89

Contract DBE Participation Goal	36%
Current DBE Participation	25%
Forecasted DBE Participation	36%

I concur: 
Bruce Adams, P.E.
Deputy Director of Engineering & Construction

Date: 02/26/2019

cc: Alvin Porter
Dexter Joseph
Randi Jones
Kevin Braxton

Eric Labat
Rosita Thomas
Robert Miller
Jeff Lund, GEC

Sewerage & Water Board of N.O.

8800 S. Claiborne Avenue
Main Water Purification Plant
New Orleans, LA 70118

Phone: 504-864-0657

Additional Engineering Services
G.E.C., Inc. GEC - AES 6

TITLE: Services During Construction

PROJECT: Contract 5225 - UPS Broad St.

DATE : 12/14/2018

JOB : E0514XXX

CONTRACT NO. : 5225STA

TO: Attn: William Haensel
G.E.C., Inc.
3445 N. Causeway Blvd., Ste. 401
Metairie, LA 70002
Phone: 504-838-6009

DESCRIPTION OF CHANGE

This AES task is associated with providing Construction Phase Services beyond the original scope of work.

Item	AES Description	Quantity	Measurement	Net Amount
0001	Redesign conduit route for electrical feeders and additional Construction Phase Services	1	LS	\$85,000.00

Total: \$85,000.00

The Original Contract sum was	\$57,000.00
Net Change by Previously Authorized AES tasks	\$365,392.89
The Contract Sum Prior to This Change Order was	\$422,392.89
The Contract Sum Will be Increased	\$85,000.00
The New Contract Sum Including This Change Order	\$507,392.89

ACCEPTED:


Design Firm

Sewerage & Water Board of N.O.

Sewerage & Water Board of N.O.

By: 
William B. Haensel, Jr., P.E., PLS
Vice President Greater New Orleans Operations

By: 
Melvin R. Spooner, P.E.
Chief of Engineering

By: 
Bruce Adams, P.E. 02/26/2019
Deputy Director of Construction & Engineering

RECEIVED

FEB 06 2019

ENGINEERING DIVISION

SCOPE OF CHANGE No. 5
HURRICANE RELATED WATER RESTORATION PROGRAM
CONTRACT 5225 BROAD STREET UNDERPASS STATION
G.E.C., Inc.
CONTRACT AMENDMENT No. 5

ADDITIONAL ITEMS TO BE ADDED TO CONTRACT

AES #	CN	Detailed Description	Fee	Funding Source
6	5225	Redesign conduit route for electrical feeders and additional Construction Phase Services	\$ 85,000.00	Hurricane Recovery Bonds

TOTAL \$ 85,000.00

CONTRACT DBE %	
Contract DBE%	36%
Current DBE%	25%

CONTRACT AMOUNT	
Original Contract Amount	\$ 57,000.00
Amount of Previous Contract Amendments	\$ 365,392.89
Amount of this Contract Amendment	\$ 85,000.00
Contract Amendments to date	\$ 450,392.89

% OF ORIGINAL CONTRACT AMOUNT	
This Contract Amendment	149.1%
Previous Contract Amendments	641.0%
TOTAL TO DATE	790.2%


REVISED CONTRACT AMOUNT \$ 507,392.89
--


It is mutually agreed to perform and accept the above revisions for AES # 6 in accordance with the currently amended contract and the applicable specifications for the above price.

Proposed By:



 William B. Haensel, P.E.
 Gulf Engineering and Consultants

Recommended By:


 Kevin Braxton
 S&WB Project Manager


 Date

Approved By:


 M. Ron Spooner
 Chief of Engineering


 Date

December 14, 2018

Mr. Kevin Braxton
Network Engineering
Sewerage and Water Board of New Orleans
8800 South Claiborne Avenue
New Orleans, LA 70118

RE: Broad Street Underpass Pumping Station
Contract No. 5225
GEC Project No.: 0051.1750700.000
AES No. 6 Request – Hurricane Related Repairs to N. Broad Street Drainage
Underpass Pumping Station & Additional Construction Phase Services

Dear Mr. Braxton:

Please accept this letter as our request for Additional Engineering Service No. 6 (AES No. 6) for the Hurricane Katrina Related Repairs to N. Broad Street Drainage Underpass Pumping Station project. This amendment covers additional Construction Administration (CA) and Resident Inspection (RI) services required to complete the project. AES No. 6 also includes funds for additional services by our DBE sub, Infinity Engineering.

As you are aware, GEC and Infinity have been tasked to revise the route for the electrical feeders for the underpass drainage station and to include a conduit rack and manhole for the 508 electrical feeders. The design and the installation of these feeders has delayed the completion of the project. These delays have resulted in increases in engineering design and in administrative tasks as well as increasing our resident inspection services.

The original construction completion date was September 26, 2017. Change orders to date have moved the completion date to December 7, 2018. The contractor is expected to remobilize beginning in January 2019, where their latest project schedule shows the project being completed in May 2019. After analyzing the estimated schedule from the contractor, GEC estimates that CA and RI services will need to be provided for another 15 +/- weeks beyond the funds provided from the previous AES.

Therefore, to complete the feeder work and provide additional CA & RI, we respectfully request a contract amendment for services with a NTE amount of \$85,000.00. Attached to this request, find a summary showing how we arrived at the additional fee. Also included is an updated DBE participation form to reflect the new goal percentage from AES No. 6. Also, for your convenience, I have revised and signed the Scope of Change form and AES 6 Description form, and will include them with delivery of this request.

Please feel free to contact me should you have any questions. We appreciate the opportunity to continue providing these services to the Sewerage and Water Board of New Orleans.



G.E.C., Inc.
3445 N. Causeway Blvd., Ste. 401
Metairie, Louisiana 70002
(504) 838-6009 Fax (504) 218-7229
Sherri LeBas, P.E., President



Very truly yours,

G.E.C., Inc.

William B. Haensel, Jr., P.E., PLS,

Vice President Greater New Orleans Operations

Enclosure

Celebrating 31th Anniversary

Coastal • Engineering • Economics • Energy • Environmental • GIS • Planning • Transportation

AES No. 6: Proposed Scope and Estimated Man-Hours for Construction Phase Services (Construction Management, Construction Administration, and RPR/Inspection) at the Broad Street UPS

Prepared by G.E.C. Inc. December 14, 2018

Classification	Billing Rates	Hours	Total
Civil Engineer (Principal Level)	\$ 182.00	12	\$ 2,184.00
Project Manager (Associate Level)	\$ 114.00	45	\$ 5,130.00
Engineering Intern (Associate/Support Level)	\$ 88.00	180	\$ 15,840.00
Electrical Engineer (Supervising Level)	\$ 153.00	60	\$ 9,180.00
RPR (Inspector)	\$ 88.00	600	\$ 52,800.00
Total Labor Costs =			\$ 85,134.00
Proposed Not-to-Exceed Contract Amount for CA & RI =			\$ 85,000.00

Celebrating 31th Anniversary

Coastal • Engineering • Economics • Energy • Environmental • GIS • Planning • Transportation

**RATIFICATION OF CHANGE ORDER NO. 2 FOR CONTRACT 30014 –
CLEANING AND CCTV INSPECTION OF SANITARY SEWER MAINS AT
SCATTERED SITES WITHIN ORLEANS PARISH**

WHEREAS, the Sewerage and Water Board entered into Contract 30014 with Compliance Envirosystems, LLC for the amount of \$716,850.00; and,

WHEREAS, the Contractor under Contract was awarded a renewal in the amount of \$716,500.00, which brings the total contract value to \$1,433,700.00; and,

WHEREAS, the first Change Order, in the amount of \$292,425.00, is 20.4% of the total original contract value including the renewal; and

WHEREAS, with the second Change Order requested of \$250,000.00 will bring the accumulated change order total to \$542,450.00 or 37.8% of the original contract value, thus providing a new contract value of \$1,976,150.00; and,

NOW THEREFORE BE IT RESOLVED, the approval of Change Order No. 2 for Contract 30014 is ratified by the Sewerage and Water Board of New Orleans and Recognition of this Change Order is hereby approved.

I, Ghassan Korban, 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 said Board,
duly called and held, according to law, on
March 20, 2019.

Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: February 15, 2019

From: Robert Turner, P.E.
General Superintendent

To: Ghassan Korban
Executive Director

Re: Contract 30014 – CLEANING AND CCTV INSPECTION OF SANITARY
SEWER MAINS AT SCATTERED SITES
WITHIN ORLEANS PARISH
Change Order No. 2

Enclosed please find Administrative Change Order No.2 for the subject contract to ratify Field Change Order No. 1, which is recommended for approval.

This Administrative Change Order No. 2 with the Contractor, Compliance EnviroSystems, is required in order to add an X-Item for the sonar inspection of the 36" gravity sewers mains on Palmyra St and a time extension due to a bid protest that delayed the acceptance of the new contract. The approved Field Change Order No. 1 in the amount of \$250,000.00 for this related work is attached.

The original Contract amount was \$716,850.00 and a one (1) year renewal was exercised per Contract terms revising the Contract amount to \$1,433,700.00. Change Order No. 1 was in the amount of \$292,450.00 and represented 20.4 % of the renewed contract total. Change Order No. 2 in the amount of \$250,000.00 represents 17.4% of the renewed Contract total. Total change orders amount to \$542,450.00, and represent 37.8% of the renewed contract total. The total of the original contract value, renewal and two (2) change orders is \$1,976,150.00.

The contractor's current attained DBE is 42%. The required DBE participation goal on this contract is 36% percent and will remain unchanged through this approved change order.

I would appreciate you forwarding this change order to the attention of the appropriate committees of the Board for their consideration and approval.

cc: M. Ron Spooner
Fred Tharp
David Cappel
Steve Bass
Alvin Porter
Dexter Joseph
Rosita Thomas
Lawrence Bankston

Sewerage & Water Board of New Orleans: Change Order 2019 Approval Form

Contract # 30014 P/O# _____ Date: 01/11/2019

Project Name: Cleaning and CCTV Inspection of Sanitary Sewer Mains at Scattered Sites Within Orleans Parish Job/Project # _____

Reason for Change Order: The reason for this change order is to add an X-Item for the Sonar Inspection of the 36" Sewer Mains on Palmyra St. and a time extension due to the new replacement contract bid being protested by Wallace Drennan Construction.

Change Order Amount: \$250,000.00 Contract Amount Prior To Change Order: \$1,433,700.00

Original Contract Amount: \$716,850.00 Total Spent to Date: \$ 1,976,150.00

PW#: _____ Vendor: Compliance Enviroystems, LLC

C. P. Item # N/A / _____ % C. P. Item # N/A / _____ % C. P. Item # N/A / _____ %

Source of funding for Change Order:

System Funds: \$ _____ Bonds: \$ _____ FEMA: \$ _____ Anticipated FEMA: \$ _____

Total Funding: \$ _____

FUND Code SWB/027 ORGN Code 6621 ACTIVITY Code N/A OBJECT Code 4411

Total Project Investment to Date: (Place total amount of contracts on projects)

- Survey Phase \$ _____
- Design Phase \$ _____
- Testing Phase \$ _____
- Value of A/E Contract for this work to Date: \$ _____
- Construction Contract Value to Date: \$ 1,976,150.00
- Value of Project Management to Date: \$ _____
- Value of other Professional Services to Date: \$ _____
- Total Investment to Date: \$ _____

RECORDATION

- Is this change order more than 10% of the original contract and more than \$100,000? ☒ Yes ☐ No
- Does this change order put the total % of change orders above 20% of the original contract and is it more than \$100,000? ☒ Yes ☐ No
- If the answer is yes to either one of these questions recordation is required by state law within 30 days. If the original contract and/or previous change orders have not yet been recorded they must be recorded at this time.

VENDOR SELECTION AND DBE INFORMATION

- Type of Procurement Used: [Should always be RFP for amendments.]
- Local Vendor: ☒ Yes ☐ No
- DBE: ☒ Yes ☐ No. If Yes, % 36

Sewerage & Water Board of New Orleans: Change Order 2019 Approval Form

ACTION CRITICAL

Objective consideration of alternatives: Describe other actions considered. If none, explain why

- I recommend approval for the above project (If not recommending for approval, please indicate a reason below, and return this to the previous signatory)

Paul Bulet Date: 01/18/19

- Level Two (2) Project Manager, S&WB, Engineering Department

Requested Response Date: 1/1

JWB Date: 1/18/19

- Level One (1) Manager, S&WB, Engineering Department

Requested Response Date: 2/18/19

JWB Date: 2/18/19

- Deputy Director, General Superintendent, S&WB, Engineering Department

Requested Response Date: 1/1

G. H. Date: 3-1-19

- Fiscal Manager, PDU

Requested Response Date: 1/1

Date: _____

- Executive Director, S&WB

Requested Response Date: 1/1

Date: _____

- Director of Procurement, S&WB

Requested Response Date: 1/1

Date: _____

SCOPE OF CHANGES No. 2
Contract 30014 Clean & CCTV Sewer Mains
(Change Order No. 2)

ADDITIONAL ITEMS TO BE ADDED TO CONTRACT

Item #	FCOM	Detailed Description	Units	Unit Price	Quantity	Amount	Days	Comments
X-02	N/A	Sonar Inspection of 36" Sewers Mains on Palmyra	LS	\$50,000.00	1	\$50,000.00	120	FEMA Ineligible
X-03	N/A	Extension of Contract due to new Contract being delayed due to bid protest.	LS	\$200,000.00	1	\$200,000.00	347	FEMA Ineligible
						\$250,000.00	467	

Contract DBE %	36.0%
Current DBE %	42.0%
Forecasted DBE %	36.0%

Original	\$ 716,850.00
Amount of previous Change Orders	\$ 292,450.00
Amount this Change Order	\$ 250,000.00
Change Orders to date	\$ 542,450.00

Original Contract Days	730
Days Previously Added	0
Days this Change Order	467
Days Added to date	0

REVISED CONTRACT AMOUNT \$ 1,376,150.00

REVISED CONTRACT DAYS 1197


% OF ORIGINAL CONTRACT AMOUNT

This Change Order	17.4%
Previous Change Order	20.4%
TOTAL TO DATE	37.8%

Work Order Date **10/2/2015**
 Work Completion Milestone Date **1/11/2019**

It is mutually agreed to perform and accept the above revisions in accordance with the original contract and applicable specifications for the above price. This Change Order includes all OH and Profit fees associated with the work. No additional fees shall be awarded after acceptance of this Change Order.

Proposed By:  **Brad Dornach**
 Compliance Environments

Recommended By:  **Lawrence Bankston**
 S&WB Project Manager

Approved By:  **Fred Tharp**
 Chief of Networks

Date: **2/18/19**

Sewerage & Water Board of N.O. FIELD Change Order | 2018

Field Change Order No.: 01 Contract No.: 30014 /PO#

Project Manager: Lawrence Bankston, Ashraf Abdelbaqi Date: 6/1/2018

Project Name: **Cleaning and CCTV Inspection of Sanitary Sewer Mains at Scattered Sites Within Orleans Parish**

Job/Project # 30014

You are hereby requesting to make the following (In Scope) change(s) in accordance with the terms and conditions of the above Contract:

Increase Contract funds due to :

Sonar inspection of 36" diameter siphons on Palmyra.

Contract 30217 was bid in February 2018 but is now being protested by Drennan Construction

This contract is used to meet EPA criteria for sewer inspections

FOR THE (Additive) Sum of: Two hundred fifty thousand dollars

Original Agreement Amount	<u>\$1,433,700.00</u>
Sum of Previous Changes	<u>\$292,450.00</u>
Present Agreement Amount	<u>\$1,726,150.00</u>
This Change Order Add	<u>\$250,000.00</u>
Proposed Contract Amount	<u>\$1,976,150.00</u>

The time for completion shall be increased by ninety (90) calendar days due to this Change Order. Accordingly, the Contract Time is now Eight hundred twenty (820) calendar days and the substantial completion date is August 31, 2018. Your acceptance of this Change Order shall constitute a modification to our Contract and will be performed subject to all the same terms and conditions in our Contract indicated above, as fully as if the same were repeated in this acceptance.


The adjustment, if any, to this Contract shall constitute a full and final settlement of any and all claims arising out of or related to the change set forth herein, including claims for impact and delay costs.


The Director of Procurement will direct the Contractor to increase the penal sum of the existing Performance, Payment Bonds and Insurance or to obtain additional bonds on the basis of a \$100,000.00 or greater value change order. The Contractor Shall: Provide written confirmation within one (1) week of request: from their bonding company/agent (attorney-in-fact) that the amounts of the Performance, Payment Bonds and Insurance have been adjusted to 100% of the new contract amount. NOTE: No Invoices for change order work shall be paid without approved supporting documentation. .

Non-FEMA
MRE

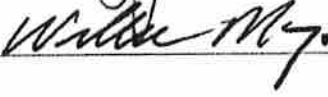
Sewerage & Water Board of N.O. FIELD Change Order | 2018

Contractor:  Brad Dotruch (President)

Level 1 Manager:  David Coppel

Level 2 Manger:  STEVE BASS

Deputy/General Superintendent:  6/11/18
Interim

Director of Procurement/Designee: 

Fiscal Manager PDU: _____

Note: Procurement Request The Following Attachments Accompany This Document: Contractors Supporting Documents, Requesting Department Independent Contract Estimate, (ICE).

Sewerage & Water Board of N.O. FIELD Change Order | 2018

CONTRACT 30014					
Item	Quantity	Unit	Item Description	Unit Price	Amount
1	50,000	EA. L.F.	CLEAN 8"-12" SANITARY SEWER MAINLINES	\$1.85	\$92,500.00
2	15,000	EA. L.F.	CLEAN 15"-18" SANITARY SEWER MAINLINES	\$2.50	\$37,500.00
3	1,000	EA. L.F.	CLEAN SANITARY SEWER MAINLINES > 18"	\$5.00	\$5,000.00
4	4	EA.	CLEAN 6" SHC OR LATERAL LINES	\$50.00	\$200.00
5	65,000	EA. L.F.	CCTV INSPECTION OF 8"-18" SANITARY SEWER MAINLINES	\$0.58	\$37,700.00
6	1,000	EA. L.F.	CCTV INSPECTION OF SANITARY SEWER MAINLINES > 18"	\$1.00	\$1,000.00
7	2	EA.	REVERSE SETUPS FOR CCTV INSPECTION OF MAINLINES	\$2,200.00	\$4,400.00
8	10	EA.	CCTV INSPECTION OF 6" SHC FROM SEWER MAIN TO CLEAN-OUT	\$140.00	\$1,400.00
9	10	EA.	CCTV INSPECTION OF 6" SHC FROM CLEAN-OUT TO SEWER MAIN	\$50.00	\$500.00
10	3	EA.	SET AND MAINTAIN SEWER BYPASS SYSTEM EQUIPMENT - SEWER 8"-18"	\$2,000.00	\$6,000.00
11	1	EA.	SET AND MAINTAIN SEWER BYPASS SYSTEM EQUIPMENT - SEWER > 18"	\$4,000.00	\$4,000.00
12	600	EA. L.F.	CLEAN 8"-18" DRAIN FOR CCTV INSPECTION	\$4.00	\$2,400.00
13	400	EA. L.F.	CLEAN DRAIN > 18" FOR CCTV INSPECTION	\$15.00	\$6,000.00
14	600	EA. L.F.	CCTV INSPECTION OF 8"-18" DRAIN	\$1.00	\$600.00
15	400	EA. L.F.	CCTV INSPECTION OF DRAIN > 18"	\$2.00	\$800.00
X-1	1	LS	Sonar 36" Sewers on Palmyra		\$50,000.00
TOTAL					\$250,000.00

Contract DBE %	
Contract DBE %	36.00%
Current DBE %	40.00%
Forecasted DBE %	36.00%

Contract Amount	
Original	\$1,433,700.00
Sum of Change Orders	\$292,450.00
Amount this Change Order	\$250,000.00
Change Order Total to Date	\$542,450.00
Revised Contract Amount	\$1,976,150.00

Sewerage & Water Board of N.O. FIELD Change Order | 2018

Contract Duration	
Original Contract Days	730
Days Previously Added	0
Days Added by this Change Order	90
Days Added to Date	90
Revised Contract days	820

% of Original Contract Amount	
This Change Order	17.40%
Previous Change Order	20.40%
Total to Date	37.80%

**CONTRACT AMENDMENT NO. 8 TO THE AGREEMENT BETWEEN THE
SEWERAGE AND WATER BOARD OF NEW ORLEANS AND STANLEY
CONSULTANTS INC. FOR DESIGN AND ENGINEERING SERVICES FOR WATER
HAMMER HAZARD MITIGATION PROGRAM**

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-174-2011, Stanley Consultants, Inc. was awarded the agreement for design and engineering services for the Water Hammer Hazard Mitigation Project at the Carrollton Water Treatment Plant for \$2,499,362.06 ; and

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-75-2014, the existing agreement with Consultant was increased by \$1,025,821.60; and

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-264-2014, the existing agreement with Consultant was increased by \$37,940.50; and

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-056-2015, the existing agreement with Consultant was increased by \$465,034.89; and

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-094-2016, the existing agreement with Consultant was increased by \$591,283.20; and

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-149-2016, the existing agreement with Consultant was increased by \$1,584,842.00; and

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-59-2018, the existing agreement with Consultant was increased by \$578,967.65; and

WHEREAS, by action of the Sewerage and Water Board of New Orleans (Board), through the adoption of Resolution R-144-2018, the existing agreement with Consultant was increased by \$509,049.42; and

WHEREAS, the level of effort for the existing contract has increased due to additional construction administration services as a result of the extension of Contract 1395 and additional geotechnical services for the design of Contract 1377; and Board staff have requested Stanley Consultants Inc. to perform construction administration services for the construction of Contract 1377.

NOW THEREFORE, BE IT RESOLVED, that the President and/or President Pro Tem shall be authorized to execute the amendment to this agreement with Stanley Consultants, Inc. for the Water Hammer Hazard Mitigation Project increasing the fee authorized to be paid to Stanley Consultants, Inc. by \$3,108,938.48 to a total fee of \$10,401,239.80.

I, Ghassan Korban, 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 said Board,
duly called and held, according to law, on
March 20, 2019.

Ghassan Korban
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: February 21, 2019

From: Bruce Adams, P.E. *Bruce Adams 02/01/2019*
Deputy Director of Engineering and Construction

To: Ghassan Korban, P.E.
Executive Director

Re: **Contract Amendment No. 8 – Stanley Consultants, Inc. - Water Hammer Hazard Mitigation Project**

Attached please find the supporting documents from the Chief of Engineering recommending approval of the eighth Contract Amendment for Additional Engineering Services to be performed by Stanley Consultants, Inc. (SCI) for the Water Hammer Hazard Mitigation Program.

This request is in the amount of \$3,108,938.48 with two requests for Additional Engineering Services (AES):

- AES 9 - \$679,125.48 - This AES represents the additional engineering and field inspection services performed by SCI for the construction of Contract 1395 – Elevated Storage Tanks. This additional scope is a result of the extended contract times awarded to the contractor. This AES also includes geotechnical work required for the design of Contract 1377 as a result of requests made by LDOTD.
- AES 10 - \$2,429,813.00 - This AES represents the costs of all engineering services during construction, construction administration and field inspection services for the second contract of the Water Hammer Hazard Mitigation Program: Contract 1377 – Claiborne Pumping Station and Off Site Improvements. Contract 1377 is anticipated to be awarded in the Summer of 2019 with an anticipated construction timeline of 28 months.

This Contract Amendment request brings the cumulative Contract Total to \$10,401,239.80 with the Contract Amendments totaling \$7,901,877.74. Stanley Consultants, Inc. has committed to maintain their 35% DBE Participation Goal through these amendments.

I would appreciate you forwarding this request to the attention of the appropriate committees of the Board for their consideration and approval.

APPROVED:

Robert Turner, P.E.
General Superintendent

Cc: Dexter Joseph, Budget
M. Ron Spooner, Chief of Engineering
Alvin Porter, EDBP
Chris Bergeron, Mechanical Engineering

Sewerage & Water Board of N.O.

8800 S. Claiborne Avenue
Main Water Purification Plant
New Orleans, LA 70118

Additional Engineering Services
Stanley Consultants, Inc. AES 9

TITLE: Construction Inspection Services

PROJECT: Water Hammer Hazard Mitigation Project

DATE : 2/1/2019

JOB : A1035STA

CONTRACT NO. : 1395, 1377, 1376

TO: Attn: Jeff Decoteau
Stanley Consultants, Inc.
721 Government Street, Suite 302
Baton Rouge, LA 70802
Phone: 504-388-4286

DESCRIPTION OF CHANGE

This AES represents additional services during construction for Contract 1395 - Water Hammer Hazard Mitigation Project - Elevated Storage Tanks. These costs include services through July 1, 2019 for engineering and field inspection. This AES also included some geotechnical services to meet the design changes requested by the LDOTD.

Item	AES Description	Net Amount
1	Additional Engineering and Field Inspection Services for Contract 1395	\$662,367.48
2	Additional Geotechnical Engineering Services to meet LDOTD requirements for Contract 1377	\$16,758.00
Total:		\$679,125.48
The Original Contract sum was		\$2,499,362.06
Net Change by Previously Authorized AES tasks		\$4,792,939.26
The Contract Sum Prior to This Change Order was		\$7,292,301.32
The Contract Sum Will be Increased		\$679,125.48
The New Contract Sum Including This Change Order		\$7,971,426.80

ACCEPTED:

Stanley Consultants, Inc.

Sewerage & Water Board of N.O.

Sewerage & Water Board of N.O.

By: 
Tony Mardam

By: 
Melvin R. Spooner, P.E.

By: 
Bruce Adams, P.E. 03/01/2019

Sewerage & Water Board of N.O.

8800 S. Claiborne Avenue
Main Water Purification Plant
New Orleans, LA 70118

Additional Engineering Services
Stanley Consultants, Inc. AES 10

TITLE: Construction Inspection Services

PROJECT: Water Hammer Hazard Mitigation Project

DATE : 2/18/2019

JOB : A1035STA

CONTRACT NO. : 1395, 1377, 1376

TO: Attn: Jeff Decoteau
Stanley Consultants, Inc.
721 Government Street, Suite 302
Baton Rouge, LA 70802
Phone: 504-388-4286

DESCRIPTION OF CHANGE

This AES represents costs associated with Phase III of the Water Hammer Program - Construction Inspection and Administration of Contract 1377 - Claiborne Ave Pumping Station and Off-Site Improvements. These costs include all resident inspection and engineering services required for the 119-week construction project along with Project administration prior to and after construction.

Item	AES Description	Net Amount
1	Construction Inspection and Administration Services for Contract 1377	\$2,429,813.00

Total: \$2,429,813.00

The Original Contract sum was	\$2,499,362.06
Net Change by Previously Authorized AES tasks	\$5,472,064.74
The Contract Sum Prior to This Change Order was	\$7,971,426.80
The Contract Sum Will be Increased	\$2,429,813.00
The New Contract Sum Including This Change Order	\$10,401,239.80

ACCEPTED:

Stanley Consultants, Inc.

Sewerage & Water Board of N.O.

Sewerage & Water Board of N.O.

By: 
Tony Mardam

By: 
Melvin R. Spooner, P.E.

By: 
Bruce Adams, P.E. 02/01/2019

SCOPE OF CHANGE No. 8
WATER HAMMER HAZARD MITIGATION PROJECT
CONTRACT 1395, 1376, 1377
STANLEY CONSULTANTS, INC.
CONTRACT AMENDMENT NO. 8

ADDITIONAL ITEMS TO BE ADDED TO CONTRACT


AES #	CN	Detailed Description	Fee	Funding Source
9		Additional Engineering and Field Inspections Services for Contract 1395 and Additional Geotechnical Engineering Services for Contract 1377	\$ 679,125.48	FEMA
10		Construction Inspection and Administration Services for Contract 1377	\$ 2,429,813.00	FEMA

TOTAL \$ 3,108,938.48

CONTRACT AMOUNT	
Original Contract Amount	\$ 2,499,362.06
Amount of Previous Contract Amendments	\$ 4,792,939.26
Amount of this Contract Amendment	\$ 3,108,938.48
Contract Amendments to date	\$ 7,901,877.74

REVISED CONTRACT AMOUNT	\$ 10,401,239.80
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It is mutually agreed to perform and accept the above revisions for AES #9 & AES#10 in accordance with the currently ammended contract and the applicable specifications for the above price.

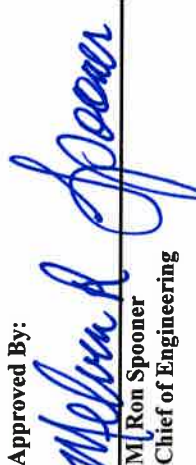
Proposed By: 
Tony Mardam, Vice President
Stanley Consultants, Inc.

2/19/2019
Date

Recommended By: 
Chris Bergeron
S&WB Project Manager

Date

3/21/19

Approved By: 
M. Ron Spooner
Chief of Engineering

3/1/19
Date



STANLEYCONSULTANTS, Inc

721 Government Street › Suite 302 › Baton Rouge, LA 70802
225.387.2422 › stanleyconsultants.com

February 18, 2019

Mr. Christopher Bergeron, P.E.
Mechanical Engineering
Sewerage & Water Board of New Orleans
8800 S. Claiborne Avenue
New Orleans, LA 70118

Subject: Water Hammer Hazard Mitigation Project
S&WB Contract Nos. 1364, 1376, 1377 (FEMA PWs. 17785 and 18836)
Associated with Construction for Contract 1377 – Claiborne Pump Station
Engineering Administration and Inspection Services Proposal

Dear Mr. Bergeron:

Enclosed is our fee estimate for the referenced project. This proposal represents services included in our current contract which did not have associated fees or costs. Also attached are the proposed scope of services and assumptions for the anticipated 123-week project.

The following is a brief breakdown between Stanley Consultants and our Disadvantaged Business Enterprise (DBE) subconsultants. These proposed services will maintain our goal for the city DBE participation when included with our current contract. We understand the importance of meeting this 35% DBE target.

Stanley Consultants, Inc. - \$1,893,970.50

Construction Inspection and Multi-Discipline Engineering Administrative Services

DBE - \$535,843.50

Construction Inspection, Multi-discipline Engineering Administrative Services

The total anticipated project cost is **\$2,429,813.00**. To date, the Sewerage & Water Board of New Orleans has approved a total contract amount of \$7,293,301.32 for the Water Hammer Program. There is an outstanding proposal for additional engineering administration and inspection services associated with Contract 1395 for \$662,367.48

This Construction Inspection and Engineering Administrative services proposal, along with the above-mentioned Contract 1395 proposal, will increase the total contract amount to **\$10,384,481.80** under the Water Hammer Mitigation Program.

If you have any questions, concerns, or require additional information, please call me at your convenience.

Sincerely,

Stanley Consultants, Inc.

c: M. Ron Spooner, P.E., SWBNO



STANLEYCONSULTANTS, Inc

721 Government Street › Suite 302 › Baton Rouge, LA 70802
225.387.2422 › stanleyconsultants.com



January 30, 2019

Mr. Christopher Bergeron, P.E.
Mechanical Engineering
Sewerage & Water Board of New Orleans
8800 S. Claiborne Avenue
New Orleans, LA 70118

Subject: Water Hammer Hazard Mitigation Project
S&WB Contract No. 1395 (formerly 1364)
SCI Project No. 24091
Proposal for Additional Engineering Services

Dear Mr. Bergeron:

Enclosed is Stanley Consultants' Proposal for the above-referenced project. This proposal has been prepared based upon both engineering field administration and resident inspection management (ECM) services associated with the Water Hammer Elevated Storage Tanks project noted as SWBNO Contract No. 1395 (formerly 1364). This proposal represents services by Stanley Consultants, Inc. (SCI), and our subconsultant Gotech-Inc. To date, the Sewerage and Water Board of New Orleans (SWBNO) has approved a total contract amount of **\$7,292,301.32**. This project total accounts for engineering design, construction administration, and field inspection services.

This proposal totals **\$662,367.48** of additional engineering and field services. The resulting additions will increase our total contract amount to **\$7,954,668.80**. As a result of this proposal, we will still maintain our 35% participation goal for the city disadvantaged business enterprise (DBE) program.

As a reminder, our contract has shifted from our customary billing rates to the newly-agreed upon rates of Stanley Consultants' break-even cost plus 10%. This has equated to a lower labor burn-rate during construction management and inspection services. As a result of these lower labor rates, we have seen an efficiency for the project budget and therefore, have been able to absorb many small out-of-scope services which are not noted in this change order.

It is Stanley Consultant's understanding that SWBNO and B&K are working towards a new projected final completion date for the water towers of **7/1/2019**. Stanley will utilize this date as an assumption for basing our future ECM efforts. If construction exceeds the projected date of 7/1/2019, then we will require additional funding to move forward. Project invoices represent actual hours completed on the job, therefore, if the budget is not consumed prior to the July 1, 2019 cut-off date, then the budget would (of course) not be invoiced against the project, since this is not a lump-sum project.



Background

The ECM original with revised budget for SCI provided engineering field administration and inspection services to a target of summer 2018. As noted in the last approved change order for engineering administration and inspection management services (SWBNO Amendment 7), Stanley Consultants, Inc. anticipated the tower completion date to be "late summer/early fall" 2018. This did not happen. None of the proposed services in this change order proposal are associated with design. They are strictly field hours, site meetings, project meetings, and field management services.

Due to approved B&K Construction delays, field construction change orders, and weather delay issues, Stanley Consultants experienced additional completed out-of-scope tasks from April 29, 2018 through November 24, 2018. We have not halted field and administration services as a courtesy to the SWBNO.

As a cost-reducing effort for the SWBNO, in October 2018 Stanley Consultants eliminated one of our on-site inspector positions since the major tower construction efforts were coming to substantial completion. This cost proposal details the estimated field observation, construction administration, and project management hours and expenses. Since construction conditions have not changed, the future inspection effort will include only one field observer and associated engineering administration support team.

In addition, as a direct result of a Stanley Consultants' specification error, it was stated that the contractor join a Class 300 valve with a Class 125 flange. B&K Construction proposed Field Change Order (FCO) 59 to field fit a new flange to correct the error. This proposal reflects a reduction in completed out-of-scope Stanley Labor hours in the amount of \$35,000 to accommodate this oversight.

Completed Out-of-Scope Services

The additional engineering field administration and inspection services were completed by five field personnel. The team consists of Jeff Decoteau, Brady Richard, Ken Young, Gwen Stithem, and Stanley Jordan (GOTECH, Inc.).

The most basic tasks performed were field inspection services by Ken Young, Gwen Stithem, and Stanley Jordan from 5/7/2018 through 11/24/2018. The inspections and field management included all work associated with the Claiborne and Panola water towers construction and associated mechanical, civil, electrical, structural, and instrumentation controls work.

During this time, the SWBNO had approved BK Construction to expedite their work schedule and authorized additional overtime for substantial completion for making the Claiborne tower substantially operational. Milestones for bringing the Claiborne tower to an operational state were completed through the entire team's efforts.

The lion's share of the manhours include the SWBNO-approved additional ECM services for overtime observation efforts for expediting the Claiborne Water Tower construction, electrical, instrumentation, and controls changes, the addition of onsite fire hydrants and, of course, the extension of the construction completion date. The completed project field reports serve as documentation of our services and field changes. The field inspection and management hours for Stanley Consultants members Ken Young and Gwen Stithem account for 638 and 1,249 hours



respectively. In cooperation with field efforts for milestone inspections, onsite meetings, construction progress meetings, field reports, and documentation, Jeff Decoteau and Brady Richard completed 96 and 84 hours respectively during this period.

The completed out-of-scope Stanley labor hours account for \$150,104.10. The expended out-of-scope expenses account for \$21,425.24 (actual). The Gotech, Inc. services (labor and expenses) account for \$143,404.13, plus 10% Stanley management fee totaling \$157,744.54. Refer to the attachment for details. The total expended out-of-scope services is **\$329,273.88** as of 11/24/2018.

Proposed Field Services through 7/1/2019

In addition to completed field services, Stanley Consultants proposes labor hours and expenses for the projected estimated tower completion date of 7/1/2019. This equates to approximately 32 weeks of additional field services and associated 10% (4 hour/week) overtime. Refer to the attachment for documentation of estimated services and associated costs.

The proposed ECM services accounts for \$313,966.60 of Stanley labor and \$19,128.00 (estimated \$3/ field hour) in expenses. This proposed effort totals **\$333,093.60**. The resulting Stanley Consultants, Inc. total proposal amount is **\$662,367.48**. Again, this proposal increases the current contract amount of **\$7,292,301.32** to a revised total of **\$7,954,668.80**.

The general descriptions of the additional services and associated costs are given below for your quick reference and the details are attached in the bound document for your review. Support documentation include emails, field reports, Instructions to Contractor (ITC), Contractor FCOs, Work Directives, and Contract documents associated with Contract 1395. The three tables shown below outline the definable completed and proposed tasks.

<i>Completed Engineering Administration/Construction Inspection, Out-of-Scope</i>		Amount
Item 1	Stanley Labor Transactions for 4/29/2018 through 11/24/2018	\$150,104.10
Item 2	Stanley Expense Transactions for 4/29/2018 through 11/24/2018	\$21,425.24
Item 3	Gotech Labor/Expense Transactions, 6 months out-of-scope	\$157,744.54
<i>Completed Services Total</i>		\$329,273.88

<i>Proposed Engineering Administration/Construction Inspection, Out-of-Scope</i>		Amount
Item 4	Labor from 11/24/2018 to 7/1/2019	\$313,966.60
Item 5	Expense from 11/24/2018 to 7/1/2019	\$19,128.00
<i>Proposed Services Total</i>		\$333,093.60



SWBNO Contract No. 1395 (formerly 1364)
January 16, 2019, Rev 1/30/2019

Summary of Services		Amount
Completed	From 4/29/2018 to 11/24/2018	\$329,273.88
Proposed	From 11/24/2018 to 7/1/2019	\$333,093.60
<i>Total</i>		\$662,367.48
Current Contract Amount		\$7,292,301.32
<i>Revised Contract Amount</i>		\$7,954,668.80

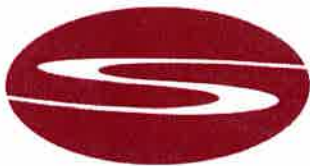
If you have any questions, please give me a call.

Sincerely,

Stanley Consultants, Inc.

Jeff Decoteau, P.E., P.M.P., V.P.
Project Manager

c: M. Ron Spooner, P.E., S&WB
Project 24091 File 01



STANLEYCONSULTANTS, Inc

721 Government Street › Suite 302 › Baton Rouge, LA 70802
225.387.2422 › stanleyconsultants.com



January 30, 2019

Mr. Christopher Bergeron, P.E.
Mechanical Engineering
Sewerage & Water Board of New Orleans
8800 S. Claiborne Avenue
New Orleans, LA 70118

Subject: Water Hammer Hazard Mitigation Project
S&WB Contract No. 1377
SCI Project No. 24091
Proposal for Additional Engineering Services

Dear Mr. Bergeron:

Enclosed is Stanley Consultants' Proposal for the above-referenced project. This proposal has been prepared based upon Geotechnical Engineering Services associated with the Claiborne Avenue Pump Station and Off-Site Improvements Project noted as SWBNO Contract No. 1377. This proposal represents services by Stanley Consultants, Inc. (SCI), and our subconsultant Professional Services Industries (PSI).

This proposal totals **\$16,758.00** of additional engineering services. To date SWBNO has approved a total contract amount of **\$7,292,301.32** for the Water Hammer Hazard Mitigation Program. There is an outstanding proposal for additional engineering administration and inspection services associated with Contract No. 1395 for **\$662,367.48**. This proposal along with the above-mentioned Contract No. 1395 proposal will increase the total contract amount to **\$7,971,426.80** under the Water Hammer Hazard Mitigation Program.

The additional Geotechnical Engineering is required for further coordination with Louisiana Department of Transportation and Development (DOTD) District No. 2. The proposed analysis will provide a pavement design and mitigation measures to address DOTD's concerns with the differential settlement of the lanes adjacent to the proposed vaults being constructed in Contract No. 1377. The general descriptions of the additional services are attached in the document for your review.

If you have any questions, concerns, or require additional information please call me at your convenience.

Sincerely,

Stanley Consultants, Inc.

Jeff Decoteau, P.E., P.M.P., V.P.
Project Manager

c: M. Ron Spooner, P.E., S&WB
Project 24091 File 01

AUTHORIZATION FOR EXTENSION of CONTRACT 8138 FURNISHING SKILLED AND UNSKILLED LABOR FOR MAINTENANCE SERVICES WITH THE GEE CEE COMPANY OF LOUISIANA, INC

WHEREAS, on January 31, 2012, pursuant to Contractor's successful bid dated October 28, 2011, following a publicly advertised bid process for a contractor to furnish skilled and unskilled labor for maintenance services for the Board, the Board and Contractor entered into Contract 8138 (the "Original Contract") which the Board engaged Contractor to furnish skilled and unskilled labor for maintenance services; and

WHEREAS, the Original Contract was for a period of one (1) year with three (3), one (1) year options for renewal; and

WHEREAS, by Resolution R-026-2013 the Original Contract was renewed for a one-year extension beginning April 1, 2013 and ending March 31, 2014, for \$2,428,498.00; and

WHEREAS, by Resolution R-061-2014 the Original Contract as renewed, was again renewed effective April 1, 2014, for \$2,428,498.00; and

WHEREAS, by Resolution R-094-2015 the Original Contract as renewed was again renewed effective June 1, 2015, for \$2,428,498.00 (the Original Contract as repeatedly renewed as set forth above, being hereinafter referred to as the "Current Contract"); and

WHEREAS, the Current Contract authorizes the Board, at its discretion and for any cause which it may deem sufficient, to extend the times set for starting and for completing the Current Contract; and

WHEREAS, in 2016 the Board advertised for a new contract to provide for furnishing of skilled and unskilled labor services on substantially the same terms as the Current Contract, but all bids were rejected, and. Contractor continued to provide services by purchase requisition; and

WHEREAS, in 2017 a new solicitation was prepared and issued seeking bids for furnishing of skilled and unskilled labor services, a pre bid conference was held, but after issuance of multiple addenda in response to various questions posed by potential bidders the decision was made to cancel the bid; and

WHEREAS, while the Board prepares to conduct a public bid process for a new contract for the furnishing of skilled and unskilled labor for maintenance services, Board has continuing need of the skilled and unskilled labor services being provided by Contractor pursuant to the Current Contract, Contractor has been continuing to provide and perform such services, and Contractor is willing to continue to perform such services, all in accordance with the terms of the Current Contract; and

WHEREAS, the parties have reviewed the Current Contract, confirmed Board's need for the services by Contractor thereunder as have been provided continually since the inception of the Original Contract, confirmed the ability and willingness of Contractor to continue to perform in accordance with and pursuant to the same terms and conditions of the Current Contract, through and including the 31st day of July, 2019, and this is a memorialization of same; and

NOW THEREFORE BE IT RESOLVED that the President of the Board is authorized to negotiate and execute an agreement by and between the Board and THE GEE CEE COMPANY OF LOUISIANA, INC. ("Contractor") extending the Current Agreement between the Board and Contractor originally dated (original 2012 date) as renewed and extended from time to time, through July 31, 2019, for an additional amount not to exceed One Million Nine Hundred Thousand and No/100 (\$1,900,000.00) for the period from January 1 2019 through July 31 2019, and a total contact amount from January 31, 2012, through and including July 31, 2019, not to exceed Nineteen Million Six Hundred One Thousand Five Hundred Forty-Nine and 10/100 (\$19,601,549.10) Dollars.

I, GHASSAN KORBAN, 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 March 20, 2019.

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS

**CONTRACT AMENDMENT NO. 7 TO THE AGREEMENT BETWEEN THE
SEWERAGE AND WATER BOARD OF NEW ORLEANS AND CH2M HILL
ENGINEERS, INC FOR PROGRAM MANAGEMENT, DESIGN AND
CONSTRUCTION MANAGEMENT FOR THE RETROFIT POWER PLANT
HAZARD MITIGATION GRANT PROJECT**

WHEREAS, by action of the Board through the adoption of Resolution R-014-2017, Consultant was awarded the agreement for program management, engineering and construction management services for the Retrofit Power Plant Hazard Mitigation Project at the Carrollton Water Treatment Plant; and

WHEREAS, by action of the Board through the adoption of Resolution R-118-2014, the existing agreement with Consultant was increased to \$16,438,004; and

WHEREAS, by action of the Board through the adoption of Resolution R-029-2015, the existing agreement with Consultant was increased to \$17,516,243; and

WHEREAS, by action of the Board through the adoption of Resolution R-112-2015, the existing agreement with Consultant was increased to \$22,486,308; and

WHEREAS, by action of the Board through the adoption of Resolution R-014-2017, the existing agreement with Consultant was increased to \$28,385,244; and

WHEREAS, by action of the Board through the adoption of Resolution R-051-2018, the existing agreement with Consultant was increased to \$35,182,231.00; and

WHEREAS, by action of the Board through the adoption of Resolution R-178-2018, the existing agreement with Consultant was increased to \$36,682,216; and

NOW THEREFORE BE IT RESOLVED, that the President and/or President Pro Tem shall be authorized to execute the amendment to this agreement with CH2M HILL Engineers, Inc., a wholly owned subsidiary of Jacobs Engineering Group (Jacobs) increasing the fee authorized to be paid to Jacobs by \$4,723,143.

I, Ghassan Korban, 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 March 19, 2019.

Ghassan Korban,
EXECUTIVE DIRECTOR
SEWERAGE AND WATER BOARD OF NEW ORLEANS



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: March 1, 2019

From: Bob Turner, P.E.
General Superintendent

To: Ghassan Korban
Executive Director

Re: **Contract Amendment No. 7 – CH2M HILL Engineers, Inc., a wholly owned subsidiary of Jacobs Engineering Group (Jacobs)**
Program Management of Hazard Mitigation Grant Program

Please see the attached letter from the Chief of Engineering recommending approval of Contract Amendment No. 7 for Additional Program Management and Construction Management Services performed by CH2M HILL Engineers, Inc., a wholly owned subsidiary of Jacobs Engineering Group (Jacobs).

CH2M (now Jacobs) has supported the Sewerage and Water Board of New Orleans in Program Management of the Hazard Mitigation Grant Program Power Plant Retrofit Project since its inception in 2013. Annual contract amendments have been executed from 2014 through 2018 based upon annual forecasted construction spend and required activities to support ongoing management, design, and construction associated with the Program. Jacobs is requesting an addition of \$4,723,143.00 to complete the current scope of work through December 2019.

The required DBE participation goal will remain the same as per the original contract goal of 35%. This Contract Amendment request brings the cumulative total of Contract Amendments to \$41,405,359.00.

I would appreciate you forwarding this request to the attention of the appropriate committees of the Board for their consideration and approval.

Cc: Bruce Adams, Deputy Director-Engineering and Construction
M. Ron Spooner, Chief of Engineering
Eric Labat, Chief of Operations
Procurement
Legal Dept



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Inter-Office Memorandum

Date: March 1, 2019

From: Bruce Adams, P.E. *Bruce A Adams*
Deputy Director – Engineering & Construction *03/01/2019*

To: Bob Turner, P.E.
General Superintendent

Re: **Contract Amendment No. 7 – CH2M HILL Engineers, Inc. a wholly owned subsidiary of Jacobs Engineering Group (Jacobs)**
Hazard Mitigation Grant Program Management

Enclosed please find a recommendation for approval of Contract Amendment No. 7 for the above captioned contract. This amendment authorizes an increase of fees by \$4,723,143.00, bringing the cumulative total of the contract to \$41,405,359.00.

Original Contract Award Amount:	\$12,497,750.00
Previous Approved Contract Amendments:	\$24,184,466.00
This Contract Amendment Amount:	\$4,723,143.00
Total Cumulative Dollar Contract Amendment Amount:	\$41,405,359.00

Contract DBE Participation	35%
Forecasted DBE Participation through 2019	22%

The Engineering Department has reviewed this proposal and is recommending it for approval.

I concur: *[Signature]*
Bob Turner, P.E.
General Superintendent

Date: *3-1-2019*

Cc:
Procurement
Rosetta Thomas, Finance Director
Eric Labat, Chief of Operations
Legal Dept.

AMENDMENT No. 7
PROGRAM MANAGEMENT
OF HAZARD MITIGATION GRANT PROGRAM POWER PLANT RETROFIT
CH2M HILL ENGINEERS, INC

ADDITIONAL ITEMS TO BE ADDED TO CONTRACT

AES #	CN	Detailed Description	Fee	Funding Source
1		Additional Program Management, Construction Management, Construction Inspection, Construction, Administration, in support of the Hazard Mitigation Grant Program Power Plant Retrofit. Extension of contract to December 31, 2019.	\$ 4,723,143.00	HMGP FEMA & System Funds

TOTAL \$ 4,723,143.00

CONTRACT DBE %	
Contract DBE%	35%
Current DBE%	22%

CONTRACT AMOUNT	
Original Contract Amount	\$ 12,497,750.00
Amount of Previous Amendments	\$ 24,184,466.00
Amount of this Amendment	\$ 4,723,143.00
Amendments to date	\$ 28,907,609.00

REVISED CONTRACT AMOUNT	\$ 41,405,359.00
-------------------------	------------------

It is mutually agreed to perform and accept the above revisions in accordance with the currently amended contract and the applicable specifications for the above price.

Proposed By:

Chrissy Thom

Chrissy Thom
CH2M Hill Engineers, Inc.

Recommended By:

M. Ron Spooner

M. Ron Spooner, P.E.
Chief of Engineering

2/28/2018

Date

3/1/19

Date

1515 Poydras Street – Suite 1260
New Orleans, LA, USA 70112



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Mr. Bob Turner
General Superintendent
Sewerage and Water Board of New Orleans
8800 South Claiborne Avenue
New Orleans, LA 70118

February 21, 2019

Subject: Amendment 7 to the Professional Services Agreement between the Sewerage and Water Board of New Orleans (SWBNO) and CH2M Hill Engineers, Inc., a wholly owned subsidiary of Jacobs Engineering Group (JACOBS)

Dear Mr. Turner,

Per the request of SWBNO, JACOBS has prepared Amendment 7, which is a summary of the additional requested services and additional directed work relative to Professional Services Agreement (Amendment 6) dated December 31, 2018, between SWBNO and JACOBS. Services provided include Program Management, Design Engineering Services, Construction Supervision, and Inspection Services for the Retrofit Power Plant Hazard Mitigation Project.

The scope of work included herein includes the additional services requested through December 31st, 2019, continuation of service through the negotiation period between completion of Amendment 6 and adoption of Proposed Amendment 7. As such, the proposed not-to-exceed cost to complete this work is \$4,723,143.

JACOBS is proud to be in support of the Sewerage and Water Board of New Orleans and values our long-term service history and partnership with the Board. Thank you for the opportunity to continue to serve, and lead the completion of this critical infrastructure project.

A handwritten signature in blue ink, appearing to read "Yahya Rokayak".

Yahya Rokayak
Program Manager

A handwritten signature in blue ink, appearing to read "Chrissy Thom".

Chrissy Thom
Operations Manager

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New Orleans, LA, USA 70112

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Amendment 7 to the Professional Services Agreement

Sewerage and Water Board of New Orleans (SWBNO)

and CH2M Hill Engineers, Inc., a wholly owned subsidiary of Jacobs Engineering Group (JACOBS)

For

Program Management and Design & Engineering Services for the Retrofit Power Plant Hazard Mitigation Grant Project

Requested Professional Services Summary & Directed Changes

The scope of work included herein is for requested services, incurred costs during the interim phase of full expenditure of Amendment 6 funds through adoption of proposed Amendment 7, and continued professional services as defined here within through December 31st, 2019.

Scope of Work

CP-1368: Oak Street Pump Station

Project and construction supervision and inspection services will continue in 2019. This contract is in construction with anticipated work completion in Q2 2020.

CP-1369: Emergency Fuel Storage

Project and construction supervision and inspection services will continue in 2019. This contract is in construction with anticipated work completion in Q3 2019.

CP-1370: Power House General Contract

Design work associated with CP-1370 is presently on-hold following direction of SWBNO and thus no level of effort is included in this proposed amendment.

CP-1370A: 60-Hz Outdoor Switchgear

Amendment 7 includes final design of the CP-1370A package, which includes provision and installation of a new 60Hz Outdoor Switchgear System at the SWBNO Carrollton Water Treatment Plant site. The purpose of this project is to fully utilize the 60-hz generation capacity from Turbine 6.

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The following changes to the CP-1370A scope of work were identified in meetings and discussions in January 2019, and are incorporated in the basis of design for the project:

- Add two (2) 4.16kV 2,000A vertical sections to the new 4.16kV 3,000A 60Hz outdoor switchgear bus, for potable water pump A and B electrification, for a total of twelve (12) vertical sections plus the bus ties.
- Add one, two-high fully equipped 13.8kV 1,200A vertical section to the existing gas turbine generator 6 (GTG6) generator bus switchgear for a total of two: one (1) for second feeder into new 60Hz outdoor switchgear and one (1) spare for future use.
- Add 125VDC station battery system to 60Hz Outdoor Switchgear System, co-located with 60Hz outdoor switchgear; generally to include 125VDC station battery room, batteries, chargers, and ancillary station battery equipment.
- Update foundation design to accommodate equipment size and weight changes, as well as new 125VDC station battery system.

The level of effort included in Amendment 7 includes:

- Completion of pot-holing and utility survey that was initiated in December 2018.
- Update of the 90% design package to include the items above, including updating Jacobs design tools to reflect changes to configuration elements; producing proof-of-concept one-line diagram, foundation plan, and ductbank plan; update of all design drawings and specification documents to align with proof-of-concept designs, update of engineering cost estimate, and preparation of final package for advertisement and bid.
- Engineering services during bid phase, with bid opening assumed in September 2019
- Engineering services during construction, including support from onsite construction manager during project kickoff and startup, assumed to begin in November 2019.

CP-6247: Generator 4 Retrofit Project

Turbine 4 Project – Completion, Startup & Commissioning, and closeout

Turbine Generator 4 is commissioned and online, with minor final adjustments and operational activities remaining; Turbine 4 is presently scheduled for complete closeout April 2019.

The continued services and support through project close-out include construction supervision services, as well as Technical Subject Matter Expert support, compiling all contractor redlines and producing the Record Drawings for the project, and providing additional construction and punch-list completion oversight until all field work is completed to the satisfaction of SWBNO.

A&B Steam Pump Conversion: Motor Electrification Support

Provision of technical electrical, mechanical and power resources to support SWBNO with technical requests for information, at the discretion and need of SWBNO with a not to exceed amount of 300 hours and \$63,469.

CP-6249: Retrofit Power Plant Network (Design/Build)

Project and construction supervision and inspection services will continue through 2019. This contract is in construction with anticipated work completion in Q3 2019.

Cooling Water Report Finalization

In January 2019, Jacobs facilitated a Cooling Water Assessment Workshop in alignment with recommendations provided in the Draft Cooling Water Report delivered in 2018. The workshop was executed at the direction of SWBNO, utilizing remaining funds from the Cooling Water Analysis Task from Amendment 6. Additional funds are required to complete finalization of the Cooling Water Report.

Operations & Maintenance Standard Operating Procedure Development

Jacobs will develop standard operating procedures (SOPs) and plans per direction of SWBNO, with the input and collaboration from key SWBNO staff. The Electro Motive Diesel units (EMDs) and Turbine 4 were communicated as the highest priority systems to develop SOPs for in 2019, however the Board may elect to prioritize other equipment and Jacobs will support within the constraints of the level of effort within this proposal. For both systems (or alternates as directed by SWBNO), Jacobs will develop a Preventative Maintenance Plan & suggested Spare Parts List, and will compile all current SOPs pertaining to the system, and update with Operations and Maintenance staff input. Safety and precautionary measures will be emphasized in any SOP or plan.

Power Master Plan

All three critical functions of SWBNO (drinking water, sewer, and drainage) involve the use of power, and even a partial failure impacts the health and safety of people of New Orleans. Due to the criticality of uninterrupted power service to SWBNO systems combined with the complexity of these assets, asset condition, large potential future sustaining capital required for the power asset maintenance, and operating costs associated with steam-driven power generation, a Power Master Plan has been requested by SWBNO to identify the strategic plan to provide reliable, cost-effective, and efficient power to these systems into the future.

A Power Master Plan takes the long-term view, typically 20 years, for the various power supply sources, power distribution channels and power uses within the facilities of the organization. The Power Master Plan will evaluate the condition of each element of the Carrollton Water Plant Power System, for purchased power, steam production and use for pumps and power production, and the two frequencies of electrical energy (25 Hz and 60 Hz) used to pump the three streams of water (potable, sewer, and drainage). These evaluations will recommend operational strategies for each piece of equipment relative to overall continuous functioning of the SWBNO systems. Strategic investment in new equipment and phasing out other elements that are not functional can make rapid improvements in reliability of the overall missions of the Sewerage and Water Board.

A long-term goal of SWBNO is to transition from 25 Hz energy generation to 60 Hz energy generation/conversion at the Carrollton Power Plant, including utilization of utility power provided from a future substation located on the Carrollton campus. Given the size and complexity of fully converting the drainage system away from 25 Hz power, it is high probability that parts of that system will be utilized for many more years. A phased approach is essential in successful transition to utility provided power, and can demonstrate rapid gains in reliability and capacity while preserving much of the recent investments by SWB in the existing system, and positively impacting operating and sustaining capital costs.

A short-term goal of SWBNO is to reduce and promptly terminate the cross-connection between the potable water system and various cooling systems, for which the Power Master Plan will evaluate this as a primary driver in the near-term transition plan and phasing, and will quantify cooling water reduction and impacts as a part of the deliverables.

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The Power Master Plan will evaluate the following categories of equipment in a phased manner considering an N+1 configuration:

- Power Generation Assets
- Transmission & Distribution
- Drainage Pump Station (DPS) Electrical load requirements

The attached Power Master Plan proposal document outlines the specific proposed scope of work and tasks as follows:

- Data Collection
- Implementation Plan
- Estimate of Cost and Schedule
- Cost Benefit Evaluation
- Funding Assistance Summary
- Final Report

Program Management & Administration

Program Management services will continue through 2019. Services include Business Management, Program Controls, Document Controls, and Monthly Reporting, with anticipated completion of the Program in Q3 2020.

Assumptions

- This scope of work is limited to design, construction supervision, and consulting services; no direct supervision of SWBNO employees will occur.
- JACOBS will require written approval before accepting additional tasks under this Amendment.
- JACOBS is not responsible for the operation of the facilities and will not be responsible for any violations or compliance issues that the facilities experience.
- JACOBS may reasonably rely upon the accuracy of the information provided by SWBNO employees and Contractors.
- JACOBS will have timely access to staff and data to provide required information identified for this scope of work
- JACOBS will not be responsible for the quality and completeness of information provided by SWBNO employees and Contractors, nor for acts by SWBNO employees and Contractors.
- JACOBS will not be responsible for monitoring or oversight of facilities not in this scope, including those adjacent to work sites.
- Jacobs will not have direct coordination with Entergy.

SWBNO - Hazard Mitigation Grant Program
Power Plant Retrofit Projects
 Jacobs - Amendment 7 (A7) Summary

Project	A7 Hours	A7 Cost
CP-1368 (Oak Street Pump Station)	7,368	\$ 1,104,585
CP-1369 (Emergency Fuel Storage)	3,071	\$ 450,718
CP-1370A (60-Hz Outdoor Switchgear)	1,871	\$ 437,694
CP-6247 (Turbine 4 Refurbishment)	1,293	\$ 214,726
A&B Pump Motor Electrification Support	300	\$ 63,469
CP-6249 (Feeders)	3,177	\$ 523,047
Cooling Water	20	\$ 4,302
Turbine O&M	1,280	\$ 275,429
Power Master Plan	2,889	\$ 608,586
Program Management	6,791	\$ 1,040,588
Grand Total	28,059	\$ 4,723,143

Appendix A

Power Master Plan Proposal

1.0 Background

The Sewerage and Water Board of New Orleans (SWBNO) has three critical functions; Delivery of potable water, Removal of sewage, and Drainage of stormwater throughout the urban parish of New Orleans. These all involve the use of energy to pump large quantities of water, and even a partial failure impacts the health and safety of people living in the area. Due to the criticality of uninterrupted power service to SWBNO systems combined with the complexity of these assets, asset condition, large potential future sustaining capital required for the power asset maintenance, and operating costs associated with steam-driven power generation, a Power Master Plan has been requested by SWBNO to identify the strategic plan to provide reliable, cost-effective, and efficient power to these systems into the future.

A Power Master Plan takes the long-term view, typically 20 years, for the various power supply sources, power distribution channels and power uses within the facilities of the organization. The Power Master Plan will evaluate the condition of each element of the Carrollton Water Plant Power System, for purchased power, steam production and use for pumps and power production, and the two frequencies of electrical energy (25 Hz and 60 Hz) used to pump the three streams of water (potable, sewer, and drainage). These evaluations will recommend operational strategies for each piece of equipment relative to overall continuous functioning of the SWBNO systems. Strategic investment in new equipment and phasing out other elements that are not functional can make rapid improvements in reliability of the overall missions of the Sewerage and Water Board.

2.0 Goal of the Master Plan

A long-term goal of SWBNO is to transition from 25 Hz energy generation to 60 Hz energy generation/conversion at the Carrollton Power Plant, and to access utility provided power via a potential future substation located at the Carrollton Water Plant campus. Given the size and complexity of fully converting the drainage system away from 25 Hz power, it is high probability that parts of that system will be utilized for many more years. A phased approach is essential in successful transition to utility provided power, and can demonstrate rapid gains in reliability and capacity while preserving much of the recent investments by SWBNO in the existing system, and positively impacting operating expenses and sustaining capital costs.

A short-term goal of SWBNO is to reduce and promptly terminate the cross-connection between the potable water system and various cooling systems, for which the Power Master Plan will evaluate this as a primary driver in the near-term transition plan and phasing, and will quantify cooling water reduction and impacts as a part of the deliverables.

The Power Master Plan will evaluate the following categories of equipment in a phased manner considering an N+1 configuration:

- Power Generation Assets
- Transmission & Distribution
- Drainage Pump Station (DPS) Electrical Load Requirements

3.0 Proposed Scope of Work

The tasks outlined in this proposed power master plan will focus on the following items important to SWBNO:

- Ability to transition without losing operability of Old City Drainage
- Ability to facilitate a single Central Control
- Maximize the use of T6
- Prioritize low life cycle costs
- Consideration of the impacts of the transition on other projects currently in various stages of progress (boiler house upgrades, electrification of steam pumps A&B, cooling water cross-connection)

3.1 Task 1 - Data collection

We will begin the study with a thorough review of the previous surveys, as-builts, studies, plant operating logs and existing utility and infrastructure system alignments. During the data gathering and evaluation process, our team will involve SWBNO stakeholders on a constant basis.

- A. Confirm Goals and Expectations – At the kickoff meeting, Jacobs will confirm the basic goals and the expectations for the study.
- B. Data Gathering – Data gathering will commence following kickoff and will be focused on developing an accurate understanding of how the electrical system currently operates. Plant management and operations personnel will be interviewed to understand history, condition, loads, operational preferences and challenges and ideas on system improvements. SWBNO Operations and Maintenance staff have extensive and critical knowledge of the systems, thus receiving their input is a valuable first step.

Following these interview sessions, Jacobs will conduct plant and system walkdowns to improve understanding of the systems, collect equipment nameplate data and help assess remaining useful service life. Jacobs will also study plant as-builts and available service records to aid in these evaluations.

- C. Data Review - Based on the information provided in previous meetings and reports, it is apparent that SWBNO Electrical Engineering Department has a solid understanding of plant loads and utility production and consumption characteristics. The available utility production operating data will be reviewed to develop load profiles, preferably using hourly data. Any gaps or missing information will be communicated to SWBNO to arrive at an informed consensus on how to frame needed assumptions.

Utility system interdependencies will also be defined to understand how individual utility systems and their operation relate to the other systems. This understanding helps form a well-rounded approach and consideration of options.

Load growth projections will be incorporated into the load profiles to define the long terms capacities that are needed to support the system.

During data review, Jacobs will also define assumptions and work to outline a reasonable approach for handling missing data and operational information, how to define any growth impact on utility systems (in terms of expected load densities) and how redundancy is valued and desired for each system.

The following deliverables will be completed under Task 1:

- Summary of Data Collection - A list of any documents and data collected for this effort will be compiled for inclusion in the final report.

3.2 Task 2 – Implementation Plan

Based on the information collected during Task 1, an implementation plan will be developed. The plan will include an evaluation matrix with decision criteria consisting of cost factors and non-cost factors. A preliminary collection of system updates will be developed and presented for discussion during a Workshop with SWBNO. Upon concurrence by SWBNO senior leadership, the preliminary plan will be further developed with conceptual design sketches, Class 5 cost estimates, and Level 2 schedules.

The following deliverables will be completed under Task 2:

- Power System Implementation Plan Workshop presentation.
- Power System Implementation Plan Workshop notes to summarize workshop discussions and notes.
- Conceptual level sketches of each phase of the plan

3.3 Task 3 - Estimate of Cost and Schedule

3.3.1 Cost Estimates – Class 5 (+ 50% / - 30%)

Jacobs has a large and experienced cost estimating group numerous resources, previous project experience, and location-specific expertise. This expertise spans the U.S., across all industries and project types. Jacobs' specific power plant and utility infrastructure estimating expertise will generate an estimate that accurately captures not only the specifics associated with the SWBNO Power Master Plan phasing, but also the challenges associated with the unique requirements of constructing projects in New Orleans.

3.3.2 Project Schedules – Level 2

A project schedule will be developed showing the duration and sequence of tasks required to deliver the recommended solution, including design, permitting, bidding, submittals/shop drawings, equipment procurement & delivery, construction, and testing/commissioning. This schedule will be a milestone schedule that shows project durations. A level 2 schedule is a high level schedule integrated of engineering, procurement, construction and key start-up activities for the entire project frame that identifies activities at major milestones and includes key deliverables divided by units and system facilities.

The following deliverables will be completed under Task 3 and included in the final report:

- Power System Plan Class 5 Cost Estimates.
- Power System Plan Level 2 Project Schedules.

3.4 Task 4 – Cost Benefit Evaluation

The conventional economic viability for developing various alternatives is determined by comparing the present value of benefits (i.e., value of energy or monies saved by offsetting consumption) with the present value of costs (i.e., the capital cost for development, O&M costs, etc.). This comparison can take the form of the net present value (benefits minus costs) or Benefit/Cost (B/C) ratio. A cost analysis will be prepared illustrating the benefits and economic feasibility of developing each alternative.

The following deliverables will be completed under Task 4 and included in the final report:

- Economic evaluation of costs and benefits for the alternatives included in the power master plan

3.5 Task 5 - Funding Assistance

Jacobs has extensive experience with identifying and securing significant grants, tax credits and technical support incentives for energy projects, including master plans and central plant projects. In conjunction with the technical and financial analysis planning effort, we can conduct an exhaustive review of potential federal, state and local funding incentives that may be available to support the design and implementation of central utility or infrastructure projects.

Jacobs can immediately engage with contacts at the U.S. Department of Energy (DOE), the State Energy Office, and the US EPA to identify potential funding sources for the design and implementation projects. Potential funding sources can be investigated at the local and regional levels as well.

A summary of the available funding options will be compiled into a technical memorandum, which can be utilized by SWBNO in further pursuing loans or grants. Additionally, an interactive workshop presenting the funding options will be facilitated by a funding expert. The results of the workshop will be documented.

The following deliverables will be completed under Task 5 and included in the final report:

- Technical memorandum summarizing the availability of state and federal loan and grant funds, including timing requirements and applicability to any alternatives recommended in the power master plan.
- Workshop presentation and resulting meeting notes.

3.6 Task 6 – Power Master Plan Handbook

Utilizing Tasks 1 through 5 as an outline, a Power Master Plan Handbook will be prepared including an evaluation of the existing system, proposed phased upgrades to the system, estimated costs, estimated schedule, an evaluation of costs compared to benefits, and a summary of possible funding sources.

Anticipated appendices to the report:

1. Summary of Data Collection
2. Workshop presentation and meeting notes
3. Cost Estimates
4. Project Schedules
5. Financial Evaluation tables
6. Funding Recommendations

The Power Master Plan Handbook will be prepared in draft format for SWBNO review. After review, SWBNO comments will be incorporated and then the Final Power Master Plan Handbook will be submitted.

The following deliverables will be completed under Task 6:

- Draft Power Master Plan Handbook
- Final Power Master Plan Handbook

4.0 Assumptions

The following assumptions are included in this proposed power master plan study:

- Coordination with the local utility, Entergy, is not included

5.0 Next Steps

5.1 Schedule Milestones

The duration of the Power Master Plan development is expected to be about 8 months including the following major milestones:

- Data collection
- Development of Implementation Plan
- SWBNO Workshop – Implementation Plan
- Estimate cost and schedule
- Cost Benefit Evaluation
- Funding Assistance
- SWBNO Workshop - Funding
- Draft Report
- Review
- Final Report

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Water Audit Update FY2008 – FY2017

Technical Memorandum

Sewerage and Water Board of New Orleans

March 4, 2019

Water Audit Update

Sewerage and Water Board of New Orleans

Fiscal Years 2008 – 2017

Technical Memorandum

To: Yvette Downs, Chief Financial Officer, SWBNO

From: Nora Freeman, Freeman LLC

Date: March 4, 2019

Executive Summary

Introduction

A water audit update for the Sewerage and Water Board of New Orleans (SWBNO) was performed using the standard methodology outlined in the American Water Works Association's (AWWA) M36 Manual: *Water Audits and Loss Control Programs*. This methodology was co-developed by AWWA and the International Water Association (IWA) and includes specific steps to conduct the audit along with standard definitions.

The objectives of the water audit update were to: 1) prepare the FY2016 and FY2017 Infrastructure Leak Index (ILI) without additional data development and field work; 2) document source data; 3) identify water audit key indicator trends over the last ten years (FY2008 – FY2017); 4) provide benchmark data from other water utilities that publish their ILI; and 5) present recommendations to improve the SWBNO ILI.

Audit Methodology

A water audit is an account of all the finished water within the water system and provides a quantified understanding of the integrity of the water system including distribution, metering and billing operations. The water audit can be used as a first step in formulating a plan to address water losses and includes financial considerations.

At the macro-level, the water audit consists of:

1. Determining the volume of finished water input into the distribution system over a 1-year timeframe

2. Calculating Authorized Water Consumption over that same 1-year timeframe
 - a. Authorized consumption includes both billed metered water and unbilled metered water. Unbilled metered water is water that is metered but no use or service fee is collected for that water use. Unbilled metered water is often used for public purposes such as street cleaning, filling municipal swimming pools, a water quality flushing program, etc.
3. Calculating Water Losses (water losses = system input volume – authorized consumption), which have 2 components for quantification:
 - a. Apparent Losses, which includes estimates for: 1) customer metering inaccuracies, 2) water theft and illegal connections and 3) data handling issues and errors in the billing system
 - b. Real Losses, which includes estimates for: 1) transmission and distribution main leakage and 2) service connection leakage

The water audit performed for SWBNO is called a “top down” water audit because it used only readily available utility data with no new field work for data collection or data validation. This kind of “top down” audit is how most utilities begin their first water audit efforts. SWBNO is restricted, however, in its ability to extract data from the current information systems and thus inputs and estimates in the water audit are quite limited. The computation of both Apparent and Real Water Losses for the audit were most impacted by the difficulty of data extraction from current information systems, with almost no estimation occurring in these categories. Due in part to existing data constraints, this water audit shows considerable Water Loss for SWBNO.

Audit Results

The AWWA water audit methodology contains eight performance indicators that summarize utility performance with both financial and operational measures. The eight performance indicators are useful to compare performance of one utility over time and well as to compare performance amongst utilities for benchmarking purposes, and are included in the body of the report. Of the eight performance indicators, there are two key performance indicators that are most useful to summarize here and discuss: the Infrastructure Leak Index (ILI) and Non-Revenue Water (NRW).

The ILI is a performance indicator of the real (i.e., physical) water loss from the distribution system. It is a ratio of the annual real water loss to the technically lowest limit of water leakage that could be achieved if all of today’s best technology could be successfully applied, which is based on the utility’s miles of water main, system pressure, number of metered connections and average length of the service line from a curb-stop to the customer’s meter. ILI is an index number that makes comparison of ILI between water utilities possible. A low ILI is more favorable than a high ILI.

SWBNO’s ILI has decreased over the last ten years of audits. The ILI in SWBNO’s first audit in FY2008 was 46.0, reached a high in FY2009 of 46.6, achieved a low of 34.7 in FY2015 and was 36.9 in FY2017.

Non-Revenue Water (NRW) is defined as water that was treated but not billed to a consumer because of water losses or unbilled authorized consumption (e.g., street cleaning, distribution system flushing). NRW calculated as a percentage of the annual cost of running the water system is a key indicator that represents inefficient use of water resources and can help utilities decrease water costs while also increasing billing revenue, in an effort to keep rate increases minimal.

Along with the ILI, SWBNO's NRW as a percentage of cost has also decreased in the last ten years of water audits. The NRW as a percentage of cost in SWBNO's first audit in FY2008 was 22.9%, reached a high in FY2009 of 24.3%, achieved a low of 16.2% in FY2011 and was 18.9% in FY2017.

SWBNO's ILI and NRW as a percent of cost for the past ten years is as follows:

<u>Fiscal Year</u>	<u>ILI</u>	<u>NRW % by Cost</u>
2008	46.0	22.9%
2009	46.6	24.3%
2010	41.9	20.1%
2011	44.7	16.2%
2012	43.2	16.5%
2013	36.8	17.1%
2014	37.1	16.5%
2015	34.7	17.5%
2016	37.5	20.8%
2017	36.9	18.9%

Benchmarking

SWBNO performance indicators were benchmarked against the first and only validated water audit data set from North American water utilities, which was performed in 2011. Twenty-one utilities provided their detailed water audits to members of the AWWA Water Loss Control Committee for review and careful validation of the inputs, assumptions and methodology.

The NRW percent by cost and ILI for these twenty-one utilities are shown below and contain the average and a minimum and maximum range for each key performance indicator. SWBNO's FY2017 results are presented in the last column for comparison.

<u>Validated Key Performance Indicator</u>	<u>Average Utility</u>	<u>Range</u>	<u>SWBNO FY2017 Results</u>
NRW % by Cost	10.0%	1.7% - 23.0%	18.9%
ILI	3.6	1.2 – 12.7	36.9

Although SWBNO's ILI has decreased over the last ten years, this key performance indicator is not in a range of other water utilities benchmarked. NRW as a percent of cost is within the range of the twenty-one benchmarked utilities yet still significantly above the average. The major reason for the differences in SWBNO's ILI and NRW as a percent of cost key indicators and benchmarked utilities is due to SWBNO's lack of estimates for both Apparent Losses (metering inaccuracies, water theft/illegal connections, billing/data handling errors) and Real Losses (water main and service connection leakage).

Recommendations

1. The first step recommended to improve SWBNO's ILI is to allocate resources to reduce the data gaps in the water audit inputs. This will require creating estimates for Apparent and Real Water Losses by extracting data from current information systems, perhaps new field work and making reasonable assumptions and estimates. This work is essential to develop reliable assumptions based on SWBNO's actual operations.
2. To close the water audit data gaps, it is recommended that a cross functional team be established consisting of members who intimately understand the processes and work flows in Metering, Distribution and Plant Operations, Engineering, Customer Service, Customer Billing, Information Technology and Finance departments. One member of the team should be identified to lead and organize the group, but all team members should share in the responsibility and accountability for the audit work. Ideally over time, the water audit can be updated on a regular basis (annually or every other year) by these team members and it will become part of a larger utility effort at water loss control.
3. As SWBNO works to develop estimates for Apparent and Real Water Loss component of the audit, SWBNO should also take the opportunity to examine and ensure the accuracy of the Water System Input Volume. This figure relies almost exclusively on the exactness of the SWBNO production master meters. The testing results and routines for these production meters should be considered, and adjustments to the System Input Volume made accordingly.
4. Once additional water audit inputs are obtained, SWBNO can prioritize implementation of water loss control programs that are likely to have the most positive impact on revenue and water losses and are also cost-effective. Activities that positively impact revenue most tend to be within the Apparent Losses category of the audit and can include improved meter testing and repair practices for residential, commercial and/or industrial customers, enhanced enforcement programs to deter water theft and streamlined billing practices that catch and correct under-billing errors more quickly.
5. Efforts to improve Real Losses should also be evaluated, which include opportunities to improve the integrity of the SWBNO distribution system. Considerations may involve the cost-effectiveness of expanded distribution and transmission main survey efforts to identify leaks on active mains or abandoned service lines, response and repair time for

main breaks when they occur, along with maintenance efforts to repair leaks on service lines before the meter.

6. Current SWBNO databases should be examined to identify low-cost data capture techniques and estimate for authorized water losses around fire-fighting, fire hydrant testing, water main flushing, finished water storage tank turnover or drainage. These activities are part of every water utility's normal operation and involve water losses that if quantified in the audit will improve data and decision-making for which system and operational improvements and investments are most cost-effective.
7. NRW can be impacted by the above efforts and also by examining unbilled authorized consumption and "free water" provided to public services and/or agencies. The water industry as a whole has moved to greater accountability for all its water use, including water that is provided for public or charitable purposes. Many utilities in the country use an inter-fund transfer for payment of water and related services to other city or public agencies/departments.
8. SWBNO should only consider target-setting for its ILI once additional data can be validated and input into the water audit for the Apparent and Real Water Losses components. When that is complete, which may take several years, AWWA recommends that ILI target-setting be an internal process for each utility and that the goal should be improvement to the ILI over time, not reaching some "ideal target" or mean of ILI comparable utilities.

Summary

A water audit is an effective means of accounting for all water used within a water utility. The structured approach provided by the AWWA water audit methodology allows a utility to reliably track water use and provides information to address water losses as well as revenue losses.

SWBNO's "top down" water audit was performed using no new data collection and relied solely on data easily available from existing information systems. Unfortunately, there was not much data that could be easily extracted from these systems so the audit includes very few estimates of Real or Apparent Losses. The result is that the audit's key performance indicators that are not reasonably comparable to other water utilities, not within a range of AWWA recommendations, and not yet helpful to decision-making about how to reduce water loss most cost-effectively.

SWBNO staff is to be commended, however, for taking these first steps in a "top down" audit to understand their current water accounting opportunities and data shortfalls. SWBNO has a tremendous opportunity to use this audit work to: 1) create awareness within the utility about the important role a water audit can play in water loss control; 2) authorize staff across the utility to collaborate on closing water audit data gaps; 3) revise audit inputs; and 4) create a water audit management tool that facilitates discussions across departments about the most cost-effective ways to reduce water loss in the future.

Introduction

The water audit performed used data available from SWBNO and the standard methodology outlined in the AWWA M36 Manual: *Water Audits and Loss Control Programs*. This methodology was co-developed by AWWA and the International Water Association (IWA) and includes clear steps to conduct the audit along with standard definitions.

The scope of work for the SWBNO water audit included:

- Customizing the basic AWWA water audit spreadsheet software application for SWBNO, updating the FY2008 - FY2015 water audit model with FY2016 and FY2017 results;
- Gathering the data needed to populate the water audit model without additional field work;
- Documenting source data and identifying estimates used for the calculations;
- Computing SWBNO's ILI for past two years and trending water audit key performance indicators for the last ten years;
- Obtaining ILI data from other water utilities that publish data publicly; and
- Preparing a final water audit report along with the electronic version of the water audit model.

To accompany the M36 Manual: *Water Audits and Loss Control Programs*, free water audit software, in Excel format, is available on AWWA's website. The software can be found by copying or typing the below into your web browser:

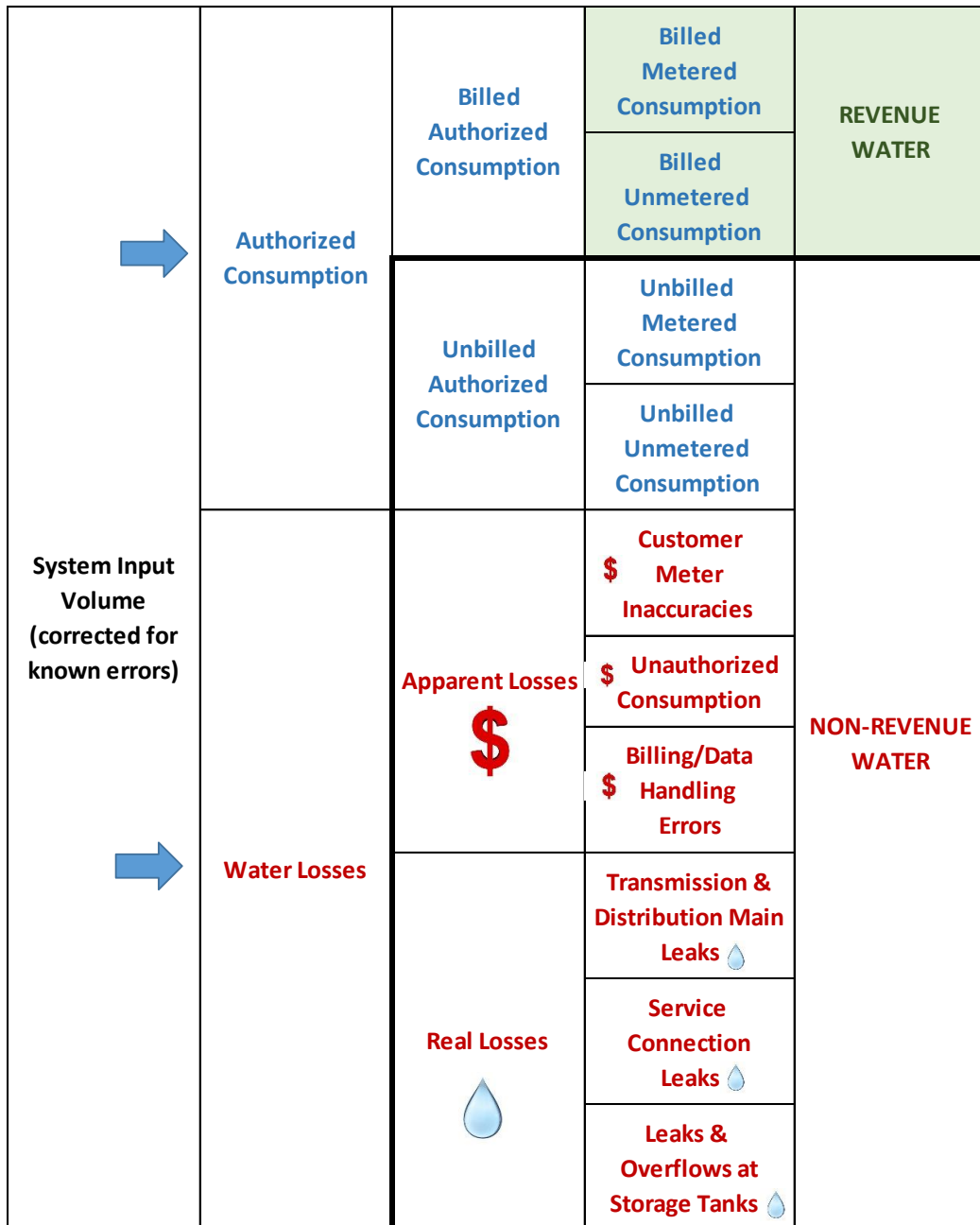
<https://www.awwa.org/Resources-Tools/Resources/Water-Loss-Control>

The AWWA software is a useful start for those utilities that want to complete a water audit for a single year. Since SWBNO desired multiple years of data for this water audit, a more detailed water audit Excel model and workbook was built exclusively for SWBNO. This Detailed Water Audit workbook is based upon AWWA's model, the work of George Kunkel at the Philadelphia Water Department (PWD), a national leader in water auditing, and the Louisville Water Company (LWC), which has been piloting annual water audits using the new methodology, in beta form beginning in 2005. This customized Excel model will also be maximally beneficial for SWBNO's future water auditing work.

SWBNO staff are to be commended for their forward-thinking in taking this first step in improved water accounting and setting this baseline upon which future improvements in water loss control can be quantitatively measured.

AWWA Water Audit Methodology

The AWWA M36 Manual: *Water Audits and Loss Control Programs* was first published in 2009 and was last updated in 2016 with its 4th edition. The M36 manual provides definitions to standardize the calculation of water loss for the first time in US water industry's history. These standard definitions and calculations assist with target-setting for the utility along with benchmarking across utilities (although most utilities are often reluctant to share their data). The AWWA water audit methodology is based on the IWA's methodology and is summarized in the following diagram, called the Water Balance:



Definitions for the above components of the water audit can be found in Appendix A.

SWBNO Water Audit Results

The Water Audit Model and calculation spreadsheets that comprise the SWBNO Detailed Water Audit for FY2008 – FY2017 can be found in Appendix B. The results of the water audit performance indicators for fiscal years 2008 -2017 are summarized below. The change in the indicators from FY2008 and FY2017 are presented, and green indicates a change that shows improved/stronger performance. Just about all of the key performance indicators have shown improvement in FY2017 compared to FY2008. The 10-year average has also been calculated for each performance indicator.

PERFORMANCE INDICATOR	FISCAL YEAR										Change	10 Year AVG
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	FY17 vs. 08	FY08-17
Financial Indicators												
Non-Revenue Water as % by Cost	22.9%	24.3%	20.1%	16.2%	16.5%	17.1%	16.5%	17.5%	20.8%	18.9%	-4.0%	19.1%
Non-Revenue Water as % by Volume	75.1%	75.2%	71.3%	73.5%	73.8%	71.1%	72.1%	70.2%	75.2%	71.6%	-3.5%	72.9%
Water Resources Indicators												
Inefficiency of use of Water as a Resource	58.3%	59.7%	53.9%	57.0%	57.6%	54.6%	55.4%	53.4%	59.2%	55.3%	-3.0%	56.4%
Operational Efficiency Indicators												
Apparent Losses - % of System Input Volume	0.75%	0.74%	0.86%	0.80%	0.79%	0.87%	0.84%	0.89%	0.75%	0.85%	0.1%	0.8%
Real Losses per Service Connection per Day	819.4	811.8	704.5	725.7	707.5	616.9	620.0	578.1	618.6	606.9	-212.6	680.9
Real losses per Mile of Main per Day	46,931	49,695	48,565	56,731	53,730	43,074	43,752	41,253	45,768	45,046	-1,885	47,454
Real Losses per Serv Conn per Day per psi	13.2	13.1	11.4	11.7	11.4	9.9	10.0	9.3	10.0	9.8	-3.4	11.0
Unavoidable Annual Real Losses (UARL)	1.83	1.91	1.84	1.93	1.99	2.11	2.13	2.16	2.22	2.23	0.4	2.0
Infrastructure Leakage Index (ILI)	46.0	46.6	41.9	44.7	43.2	36.8	37.1	34.7	37.5	36.9	-9.2	40.6

Infrastructure Leak Index

The ILI is a performance indicator of the real (i.e., physical) water loss from the distribution system. It is a ratio of the annual real water loss to the technically lowest limit of water leakage that could be achieved if all of today's best technology could be successfully applied, which is called the Unavoidable Annual Real Losses (UARL). UARL is based on the utility's miles of water main, system pressure, number of metered connections and average length of the service line from a curb-stop to the customer's meter. ILI is an index number that makes comparison of ILI between water utilities possible.

SWBNO's ILI has decreased by 9.2 since the first water audit in FY2008. The ILI in SWBNO's first audit in FY2008 was 46.0, reached a high in FY2009 of 46.6, achieved a low of 34.7 in FY2015 and was 36.9 in FY2017. The ILI is the ratio of Annual Real Losses to the UARL.

The lower ILI results in recent years are driven by two factors: 1) Reduction in Real Losses in those years and 2) the UARL in recent years is higher than the early years of water audit calculations.

To better understand drivers of the ILI ratio, the table to the below summarizes the macro results of the audit for each fiscal year. In the table, Total Water Loss is calculated by subtracting Authorized Consumption from the Total System Input Volume.

FY	Total System Input	-	Authorized Consumption	=	Total Water Losses
2008	52,656.00	-	21,583.29	=	31,072.71
2009	54,451.00	-	21,559.66	=	32,891.34
2010	52,264.00	-	23,621.20	=	28,642.80
2011	55,151.00	-	23,258.44	=	31,892.56
2012	54,469.00	-	22,682.46	=	31,786.54
2013	51,958.00	-	23,113.83	=	28,844.17
2014	52,195.00	-	22,821.11	=	29,373.89
2015	51,301.00	-	23,452.40	=	27,848.60
2016	51,568.00	-	20,590.20	=	30,977.80
2017	54,471.00	-	23,837.30	=	30,633.70

The next step in ILI calculation is to break Total Water Loss into its 2 subcategories: 1) Real Losses and 2) Apparent Losses.

For this audit, SWBNO's Apparent Losses includes only a conservative estimate of water loss due to meter slippage, 3% across all meter classes. Estimates of other Apparent Losses (e.g., water theft and/or billing/data handling errors) were not feasible to include in the audit due to SWBNO's limited ability to extract data from its current information systems.

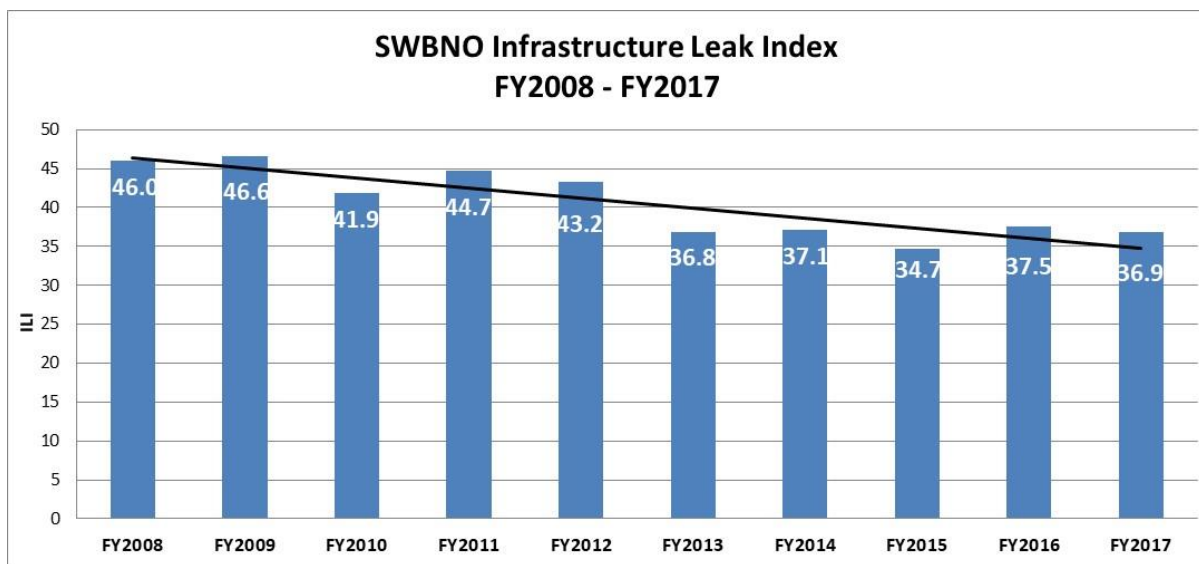
Real Losses include all other water losses, extracting Apparent Losses. Calculated, Real Losses equals Total Water Losses minus Apparent Losses. This below table illustrates how as Real Losses reached relatively lower levels in recent years and the UARL has also increased over those same years, the ILI correspondingly decreases.

FY	Total Water Losses	-	Apparent Losses	=	Real Losses	/	UARL	ILI*
2008	31,072.71	-	393.09	=	30,679.62	/	1.83	46.0
2009	32,891.34	-	405.12	=	32,486.22	/	1.91	46.6
2010	28,642.80	-	450.45	=	28,192.35	/	1.84	41.9
2011	31,892.56	-	438.87	=	31,453.69	/	1.93	44.7
2012	31,786.54	-	428.01	=	31,358.53	/	1.99	43.2
2013	28,844.17	-	450.00	=	28,394.17	/	2.11	36.8
2014	29,373.89	-	437.00	=	28,936.89	/	2.13	37.1
2015	27,848.60	-	459.00	=	27,389.60	/	2.16	34.7
2016	30,977.80	-	383.16	=	30,594.64	/	2.22	37.5
2017	30,633.70	-	462.24	=	30,171.46	/	2.23	36.9

*ILI = Real Losses / UARL / Days in year

The UARL increase in recent years is driven by both an increase in miles of main and an increase in the number of customers. In FY2013, according to the data provided by SWBNO, the number of miles of main increased by 207 miles over FY2012. The number of miles of main since FY2013 has increased only slightly each year, again based on the data provided. Similarly in FY2013, the number of customers increased by 4,671 customers over FY2012, using the data provided by SWBNO. Since FY2013, the number of customers has increased by a total of 9,429 over those four years. It may be helpful to this and future water audit analyses if SWBNO validates both the miles of main and number of customers for the last 5-10 years.

Future improvements in estimating Real and Apparent Losses within the water audit will directly impact the ILI index in a positive direction. The following chart illustrates SWBNO's ILI improving performance between FY2008 - FY2017.



Non-Revenue Water

Non-Revenue Water (NRW) is finished water that is treated but never reaches a customer for billing. It includes Apparent and Real Losses as well as Unbilled Authorized Consumption. It is calculated both as a percent of cost of production and as a percent of water volume. Along with the ILI, Non-Revenue Water measures are key performance indicators as a part of the water audit.

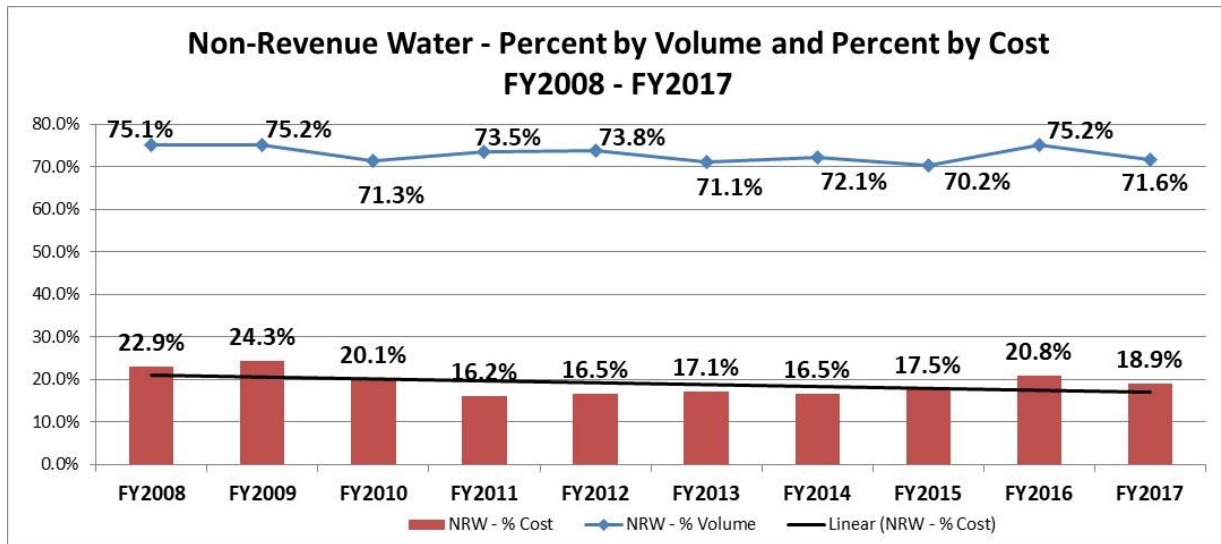
NRW as a Percent of Cost

NRW is calculated as a percentage of the annual cost of running the water system. SWBNO's NRW as a percentage of cost has decreased over the last ten years of water audits. The NRW as a percentage of cost in SWBNO's first audit in FY2008 was 22.9%, reached a high in FY2009 of 24.3%, achieved a low of 16.2% in FY2011 and was 18.9% in FY2017.

NRW as a Percent of Volume

NRW calculated as a percent of volume of the total volume of finished water delivered to the distributed system. SWBNO's NRW as a percentage of volume has also decreased over the last ten years of water audits. The NRW as a percentage of volume in SWBNO's first audit in FY2008 was 75.1%, reached a high in FY2009 of 75.2%, achieved a low of 70.2% in FY2015 and was 71.6% in FY2017.

The below chart illustrates NRW as a percent of cost and as a percent of volume for FY2008 – FY2017.



It should be noted that SWBNO's NRW by volume (70+%) is extremely high for municipal water utilities. This is a direct result of SWBNO's limited ability to extract data from its current information systems. For purely comparative purposes to get a better understanding of where SWBNO's NRW ratios could be with improved water audit data inputs, the Philadelphia Water Department (PWD) may be a good example to examine. PWD has a great depth of water audit experience, it is of relative similar age, size, demographics and infrastructure to SWBNO. Keeping in mind that PWD has been a national leader in water loss control and water accounting for over two decades, its NRW by cost in FY2008 was 15.1% and its NRW by volume 32.4% in FY2008.

ILI Comparisons

SWBNO's ILI performance exceeds any other large water utility in the United States currently performing water auditing and publicly sharing their results (due to the lack of SWBNO data estimates in Apparent and Real Water Losses). SWBNO staff is to be commended, however, for taking these first steps in a "top down" audit to understand their current water accounting opportunities and data shortfalls. The audit work is a significant first step to improving water loss in the coming years across the utility.

AWWA's water audit methodology is becoming standard for many US water utilities and several states and commissions, particularly where water is a scarce resource. Utilities that are using the AWWA water audit approach do not regularly share their water audit and ILI data outside of their own utility so benchmarking efforts have been limited.

In 2011, twenty-one water utilities provided their water audit data to members of the AWWA Water Loss Control Committee for review and careful validation of the data. This is the first validated ILI data set from individual North American water utilities, and this work remains unrepeated since 2011. This data was presented at the 2011 AWWA Annual Conference and Exposition and at the 2011 AWWA Distribution System Symposium.

The key performance indicators for these twenty-one utilities are shown below and contain the average and a minimum and maximum range for each key performance indicator. SWBNO's FY2017 results are presented in the last column for comparison.

Validated Key Performance Indicator for Benchmarking	# of utilities	Average	Range	SWBNO FY2017 Results
NRW - % by Cost	21	10.0%	1.7% - 23.0%	18.9%
NRW - % by Volume	21	22.6%	6.8% - 45.5%	71.6%
Apparent Losses (gals/conn/day)	21	14.95	2.36 - 65.89	0.09
Real Losses (gals/conn/day)	18	63.32	17.07 - 149.71	607
Real Losses (gals/mile of main/day)	3	1,821.15	645.42 - 3,496.21	45,046
Infrastructure Leak Index (ILI)	21	3.57	1.15 - 12.68	36.9

As SWNBO is a large utility, the below table may be most helpful for comparison purposes as it outlines the differences in the water audit key performance indicators for large and small utilities (defined as less than 50,000 connections and greater than 50,000 connections).

Validated Key Performance Indicator for Benchmarking	# connections < 50,000			# connections > 50,000		
	# of utilities	Average	Range	# of utilities	Average	Range
NRW - % by Cost	10	9.3%	3.1% - 17.5%	11	10.6%	1.7% - 23.0%
NRW - % by Volume	10	24.1%	12.2% - 45.5%	11	21.4%	6.8% - 39.6%
Apparent Losses (gals/conn/day)	7	10.38	2.36 - 20.64	11	19.11	6.45 - 65.89
Real Losses (gals/conn/day)	3	58.71	26.08 - 149.71	11	66.24	17.07 - 124.4
Real Losses (gals/mile of main/day)	10	1,821	645 - 3,496	0		
Infrastructure Leak Index (ILI)	10	3.51	1.24 - 12.68	11	3.62	1.15 - 9.89

The twenty one utilities that participated in this 2011 AWWA water audit data validation study include:

1. City of Asheboro (NC)
2. Austin Water Utility (TX)
3. City of Belmont (NC)
4. Birmingham Water Works Board (AL)
5. City of Calgary, Alberta (Canada)
6. Greater Cincinnati Water Works (OH)
7. Cobb County Water System (GA)
8. Dalton Utilities (GA)
9. DC Water and Sewer Authority (Washington DC)
10. Golden State Water Company, Clearlake (CA)
11. Golden State Water Company, Ojai (CA)
12. Halifax Regional Water Commission, Nova Scotia (Canada)
13. Louisville Water Company (KY)
14. Orange County Utilities Department (FL)
15. Philadelphia Water Department (PA)
16. Pennsylvania American Water, Pittsburgh (PA)
17. City of Rio Rancho (NM)
18. Washington County Service Authority (VA)
19. City of Wauwatosa Water Utility (WI)
20. City of Wilmington (DE)
21. Water and Wastewater Authority of Wilson County (TN)

For more specific utility-level ILI performance, below is 2012 ILI data provided by the American Water Works Association.

Utility	2012 ILI
DC Water & Sewer Authority (Washington DC)	7.2
Greater Philadelphia (107 systems)	4.0
Birmingham Water Works	4.0
Pennsylvania American Water, Pittsburgh	3.3
Metro Water Services (Nashville)	3.3
Austin Water Utility	3.0
Louisville Water Company	2.4
Greater Cincinnati Water Works	2.4
Orange County (FL) Utilities Department (Orlando)	1.3
Cobb County Water System (Atlanta)	1.1

It needs to be pointed out that many utilities found in the table above have been conducting water audits for many years and over that time have developed sophisticated methods for estimating water losses across the audit. As SWBNO continues to refine its water audit methodology and develop confident estimates of water loss, their ILI will reduce.

Recommendations for Improvement

The water audit performed for SWBNO is called a “top down” water audit because it used only readily available utility data with no new field work for data collection. This kind of “top down” audit is how most utilities begin their first water audit efforts. SWBNO, however, is restricted in its ability to extract data from the current information systems and thus inputs and estimates in the water audit are quite limited. The computation of both Apparent and Real Water Losses for the audit were most impacted by the difficulty of data extraction from current information systems, with almost no estimation occurring in these categories. The result is an ILI figure for SWBNO that is not usefully comparable to other water utilities at present nor in a range of AWWA recommendations. The current audit is a SWBNO’s ILI results will certainly be reduced when estimates for Apparent and Real Losses can be obtained.

The following suggestions are offered to SWBNO as ways to improve its water loss and ILI performance over time:

1. **Improve Water Audit Inputs** - Allocate staff resources to reduce the data gaps in the water audit inputs. This will require staff to create estimates for key water audit elements by extracting data from current information systems and perhaps new field work. This work is essential to develop reliable assumptions based on SWBNO actual operations.
2. **Establish a Cross Functional Team** - A water audit is most accurate when it is performed by cross functional team in the utility consisting of members who intimately understand the processes and work flows in Metering, Distribution and Plant Operations, Engineering, Customer Service, Customer Billing, Information Technology and Finance departments. One member of the team should be identified to lead and organize the group but all team members should share in the responsibility and accountability for the audit work. Ideally over time, the water audit will become part of a larger utility effort at water loss control. Water audits are typically performed annually or every-other year to maximize its effectiveness as a management tool.
3. **Validate the Accuracy of Water System Input Volume** – The System Input Volume is perhaps the most important piece of data in the water audit. All water loss categories are calculated and figured from this number. Therefore, is it vital that the System Input Volume be recorded accurately. The System Input Volume should include corrections for meter accuracy of the master production meters at the water treatment plants. SWBNO staff should look at the last time the production meters were tested and include appropriate adjustments to System Input Volume within the water audit based on the testing frequency and results. Other factors to consider are SCADA and plant instrumentation outage/maintenance histories, mass balance comparisons of flows into and out of water treatment plants and any specific operational history at the treatment plant facility that could impact production meter accuracy or data reporting.

4. **Add and Refine Estimates of Apparent Losses.** Apparent Losses consist of customer water use that is not recorded due to meter error, billing error, leak adjustments/credits and unauthorized consumption. The economic impact of Apparent Losses is greater than Real Losses, since the marginal cost of Apparent Losses occurs at the retail rate charged to customers. For this audit, SWBNO Apparent Losses were all input at zero since accurate estimates of loss could not be confidently obtained, with the exception of customer meter under-registration. A conservative estimate of 3% loss for each customer class was used to estimate loss. Apparent Losses are absolutely occurring with the SWBNO metering and billing systems, and are part of all water utility operations. For reference and perhaps a future benchmark, PWD Apparent Losses for its 2008 water audit (including meter inaccuracy, unauthorized consumption and systematic data handling errors) were 8.2% of total system input volume. Current SWBNO databases should be examined to identify low-cost data capture techniques and estimating methods for Apparent Losses that may include might include:
- Unauthorized Consumption or Theft. This includes illegal connections by-passing the meter, water taken out of fire hydrants for heat relief, irrigation, etc. and illegal water restorations of water service after a turn-off for non-payment.
 - Billing Procedure Errors. This can include occurrences of accounts not entered into/created in the billing system but a customer is receiving water service and accounts with active consumption but not billed (or held) for some reason. The losses associated with these types of errors are generally more complicated for utilities to discover and estimate but internal discussions and options for estimating these losses should be considered by SWBNO.
 - Broken or Defective Meters. There are Apparent Losses for the utility between the time a broken or defective meter is identified in the field and ultimately repaired or exchanged.
 - Missing Meters. There are Apparent Losses for the utility between the time a meter is identified as missing in the field and when a new meter is placed into service in that location.
 - Aging Meters. Meters slow down (i.e., register less usage) with age, and data from a meter maintenance, testing and replacement program can provide reliable estimates on how much meters slow down at certain size, age and flow. This is a routine source of Apparent Losses for water utilities.
 - Leak Adjustments. These are adjustments made to customer accounts, through internal policies, for leaks that occur on the customer side of the meter.
5. **Add and Refine Estimates of Real Losses.** Real Losses are the physical escape of water from the distribution system and include leakage and overflows prior to the point of end use (i.e., customer meter). This is water loss that could be recoverable within the distribution system. For this audit, SWBNO Real Losses were all input at zero since accurate estimates of loss could not be confidently obtained. Real Losses are part of all water utility operations, and are typically the largest volume of water lost by utilities within the water audit framework. For reference and perhaps a future benchmark, PWD Real Losses for its 2008 water audit were 9.9% of total system input volume. Current

SWBNO databases should be examined to identify low-cost data capture techniques and estimating methods for Real Losses that may include:

- water lost before a transmission or distribution main break is repaired, both for reported breaks and breaks/leaks that SWBNO thinks goes unreported
- unreported and reported leaks on fire hydrants
- unreported and reported leaks on distribution system valves
- assumed leaks on abandoned service lines before detection and service discontinuance
- storage tank errors or overflows that are captured through the SCADA system
- water leakage or seepage that occurs at the finished water storage sites.

Although real water loss occurs at the cost of production (involving treatment, operations and maintenance costs), improvements in distribution system integrity are typically high priorities for water utilities. It should be noted, however, that even with improvements to the distribution system and added water audit refinement to Apparent Loss volumes, Real Losses are always likely to be higher than Apparent Losses.

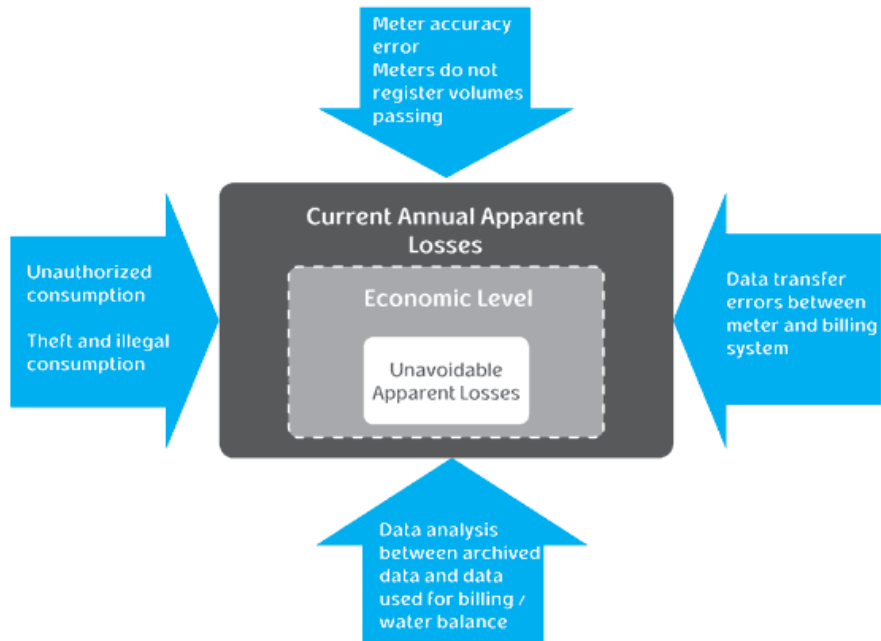
6. Add and Refine Estimates of Unbilled and Unmetered Water Loss in the Audit.

Authorized Unbilled and Unmetered water is part of every water utility's water loss. Current SWBNO databases should be examined to identify low-cost data capture techniques and estimating for water lost during activities including but not limited to:

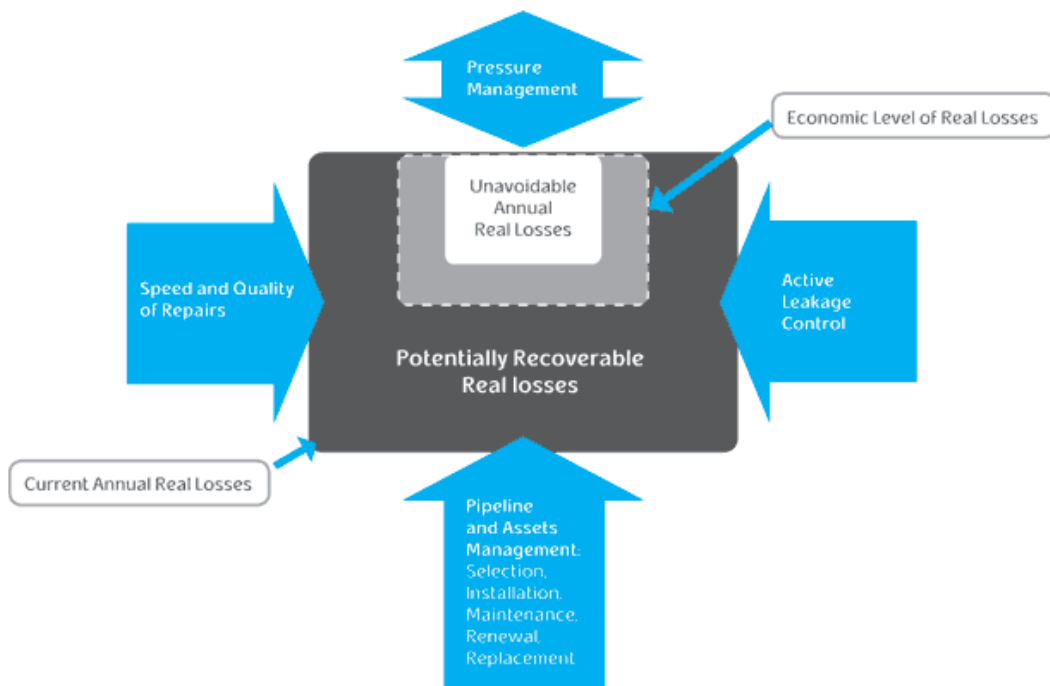
- all water main flushing, including after a main break repair, after a new main installation and to address and maintain distribution water quality
- fire hydrant testing
- fire-fighting
- finished water storage tank draining

7. Identify and Implement Processes to reduce Apparent and Real Losses. Once confident estimates of Real and Apparent Loss are developed (and this process can take several years) and an updated water audit has been validated, methods to reduce Real and Apparent Loss volumes through metering, distribution and billing process improvements should be evaluated. This evaluation should include calculating the economic level of loss for both Real and Apparent Losses. This should be balanced with the cost-effectiveness of any new investments, process or procedures.

Factors to consider in the management of Apparent Losses are outlined below. The diagram illustrates how approaches from multiple aspects can work together to make reductions (until the cost-effectiveness of the effort is no longer viable):



Similarly, the below diagram illustrates factors to consider in the management of Real Losses:



8. **Review Free Water Provided** – Utilities all over the country have experienced water consumption decline across each customer class as a result of water conservation efforts, and this trend is pronounced in water utilities serving an urban population. Corresponding to the water conservation trend, the water industry has experienced an increased accountability in tracking and ensuring payment for the water consumed. This development can be seen in the establishment of revenue protection units and departments within water utilities and also in the decline of water provided for completely free, even for public or charitable purposes. Many water utilities track water use at public agencies. Many times inter-fund transfers are charged for the water and related services. SWBNO has an opportunity to consider investigating changes in how free water is provided to city and public agencies.
9. **ILI Target Setting** - SWBNO should consider target-setting for its ILI once additional data can be input into the water audit for the Apparent and Real Water Losses components. Once that is complete, the AWWA M36 Manual recommends that ILI target-setting be an internal process for each utility and that the goal should be improvement to the ILI over time, not reaching some “ideal target” or mean ILI of comparable utilities. SWBNO needs to focus, therefore, not on reaching a certain target ILI range, but rather on the incremental year-over-year improvement to its ILI as part of its internal processes and annual goal-setting.

AWWA's Water Loss Control Committee and the M36 Manual recommends the following financial, operational and water resource considerations be evaluated by a utility when looking to set an ILI target:

Target ILI Range	Financial Considerations	Operational Considerations	Water Resource Considerations
<1.0	Two possibilities exist if the ILI is less than 1.0: 1) You are maintaining your leakage at low levels in a class with the top worldwide performers in leakage control or 2) A portion of your data may be flawed, causing your losses to be greatly understated. This is likely if you calculate a low ILI but do not employ extensive leakage control practices in your operations.		
1.0 – 3.0	Water resources are costly to develop or purchase; ability to increase revenues via water rates is greatly limited because of regulations or low ratepayer affordability.	Operating with system leakage above this level would require expansion of existing infrastructure and/or additional water resources to meet the demand.	Available resources are greatly limited and are very difficult and/or environmentally unsound to develop.
>3.0 – 5.0	Water resources can be developed or purchased at reasonable expense; periodic water rate increases can be feasibly imposed and are tolerated by the customer population.	Existing water supply infrastructure capability is sufficient to meet long-term demand as long as reasonable leakage management controls are in place.	Water resources are believed to be sufficient to meet long-term needs, but demand management interventions are included in the long-term planning.
>5.0-8.0	Cost to purchase or obtain/treat water is low, as are rates charged to customers.	Superior reliability, capacity and integrity of the water supply infrastructure make it relatively immune to supply shortages.	Water resources are plentiful, reliable, and easily extracted.
Greater than 8.0	Although operational and financial considerations may allow a long-term ILI greater than 8.0, such a level of leakage is not an effective use of water as a resource. Setting a target level greater than 8.0, other than as an incremental goal to a smaller long-term target, is discouraged.		

10. Update the Water Audit Regularly. The water audit should be updated on a frequency that is cost-effective for SWBNO. Many utilities conduct water audits on an annual or every other year basis. The water audit should receive the same rigorous attention as the annual financial audit and ideally the updating of the water audit should coincide with the financial audit. The water audit can become part of a long-term strategy to track changes in SWBNO operations management, customer demand and utility policy. The implementation of water auditing is growing in popularity all across the US and water audits are now part of state reporting requirements for California, Texas, North Georgia,

New Mexico and the Delaware River Basin Commission (DRBC) which encompasses New York, Pennsylvania, Delaware and the Army Corps of Engineers.

Conclusion

The goal of the water audit is to as accurately as possible document all the places that water is lost across the utility's operations. As more water is accounted for within the audit confidently, improvements to the performance indicators will be seen. Then, decisions can be considered about process changes needed to drive increased recovery of operational costs. The water audit data can drive, for instance, discussions on whether it is more economical to implement a program to stop leaking abandoned service lines and ferrules (Real Losses) or to implement a replacement program to update failing meters (Apparent Losses).

The SWBNO's ILI and NRW key performance indicators are too high presently to provide meaningful information to management about water loss control approaches that could be cost-effective to implement. Further, SWBNO's ILI and NRW are so high the results are not usefully comparable to other water utilities nor in a range of AWWA recommendations. The high results are directly caused by SWBNO's current inability to provide estimates for Apparent and Real Losses occurring as part of normal utility operations.

SWBNO staff is to be commended, however, for taking these first steps in a "top down" audit to understand their current water accounting opportunities and data shortfalls. SWBNO has a tremendous opportunity to use this audit work to: 1) create awareness within the utility about the important role a water audit can play in water loss control; 2) authorize staff across the utility to collaborate on closing water audit data gaps; 3) revise audit inputs; and 4) create a water audit management tool that facilitates discussions across departments about the most cost-effective ways to reduce water loss in the future.

Appendix A

Water Audit

Components and Definitions

Sewerage and Water Board of New Orleans

March 4, 2019

The format and components of the water audit are contained in what AWWA refers to as the Water Balance as follows:

<div>System Input Volume (corrected for known errors)</div> <div></div>	<div>➡</div>	Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption	REVENUE WATER
				Billed Unmetered Consumption	
	<div>➡</div>	Water Losses	Unbilled Authorized Consumption	Unbilled Metered Consumption	NON-REVENUE WATER
				Unbilled Unmetered Consumption	
		Apparent Losses \$	Customer Meter Inaccuracies		
			Unauthorized Consumption		
			Billing/Data Handling Errors		
		Real Losses 💧	Transmission & Distribution Main Leaks 💧		
			Service Connection Leaks 💧		
			Leaks & Overflows at Storage Tanks 💧		

The components of the water audit are defined as:

System Input Volume: The annual volume of water input into the water supply system.

Authorized Consumption: The annual volume of metered and/or unmetered water taken by registered customers, the water supplier and others who are authorized to do so.

Water Losses: The difference between system Input Volume and Authorized Consumption, consisting of Apparent Losses plus Real Losses.

Apparent Losses: Unauthorized Consumption, all types of metering inaccuracies and systematic data handling errors.

Real Losses: The annual volumes lost through all types of leaks, breaks and overflows on mains, service reservoirs and storage tanks and service connections, up to the point of the customer's meter.

Revenue Water: Those components of System Input Volume that are metered, billed and produce revenue.

Non-Revenue Water (NRW): The difference between System Input Volume and Billed Authorized Consumption.

Unavoidable Annual Real Losses (UARL): A theoretical reference value representing the technical low limit of leakage that could be achieved if all of today's best technology could be successfully applied. It is a key variable in the calculation of the ILI.

$$\text{UARL (gallons/ day)} = 5.41L_m + 0.15N_c + 7.5L_p \times P \text{ where}$$

L_m = length of water mains, miles

N_c = number of service connections

L_p = total length of private pipe, miles = $N_c \times$ average distance from curbstop to customer meter

P = average pressure in the system, psi

Infrastructure leak Index (ILI): Ratio of Annual Real Losses to Unavoidable Annual Real Losses (UARL); good for operational benchmarking for Real Loss control.

Definitions are taken from the M36 Manual: *Water Audits and Loss Control Program*

Appendix B

Detailed Water Audit FY 2008 – FY2017 Excel Workbook Model and Spreadsheets

Sewerage and Water Board of New Orleans

March 4, 2019

SWBNO Detailed Water Audit for FY 2008 - 2017
using American Water Works Association Format

Category / Components		Consumption Amount										Annual Cost										Source and Notes	
1	I. System Input Volume	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08												
2	I-a. Finished water delivered from plants	54,471	51,568	51,301	52,195	51,958	54,469	55,151	52,264	54,451	52,656											2013 & 2014 CAFR IV-20 & IV-21, 2012, 2011, 2010 CAFR Table IV-E, 2009 CAFR IV-8, 2008 CAFR IV-8	
3	II. Authorized Usage																						
4	a. Billed Metered																						
5	Retail customers	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08												
6	Residential	7,860	6,898	7,734	7,366	7,511	6,639	6,801	7,122	7,153	6,674											2013 & 2014 Report SABR190, 2012, 2011, 2010, 2009 and 2008 CAM Residential + Multi-Family	
7	Commercial	7,337	5,717	7,326	6,977	7,323	7,434	7,625	7,632	6,024	6,067											2013 & 2014 Report SABR190, 2012, 2011, 2010, 2009 and 2008 CAM Commercial	
8	Industrial	211	157	238	227	158	194	203	261	327	362											2013 & 2014 Report SABR190, 2012, 2011, 2010, 2009 and 2008 CAM Industrial	
9	b. Billed Unmetered	0	0	0	0	0	0	0	0	0	0												
10	c. Unbilled Metered																						
11	Non-Revenue Water	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08		
12	City of New Orleans & public instit.	1,365	1,043	1,450	1,415	1,339	1,295	1,423	1,744	972	1,599	\$573,947	\$438,428	\$482,356	\$465,091	\$336,751	\$278,014	\$308,489	\$439,384	\$267,378	\$554,120	2013 & 2014 Tiffany Julien, 2012, 2011, 2010, 2009 and 2008 Water Contributed for Public Purposes Rpt	
13	d. Unbilled Unmetered																						
14	Capital main construction flushing	1	1	1	1	1	1	1	1	1	1											Estimate based on 49 chlorination jobs in 2011 and 51 in 2012 with 25K gallons used to flush on each job. (25K estimate is based on 12.5K gal/hr measured on auto flushing device used in system for 2 hour flush).	
15	Fire-fighting, street cleaning, flushing sewers, cleaning public spaces	5,447	5,157	5,130	5,220	5,196	5,447	5,515	5,226	5,445	5,266											Assume 10% of water pumped in 2008-2017.	
16	Distribution Water Quality	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08												
17	Flushing for Carrollton & Algiers	30.7	30.7	33.9	57.5	27.8	38.3	36.3	10.0	6.7	34.7											Carrollton estimate based on metered automatic flushing (in 2009) and manual flushing (2008 & 2009). Manual flushing during June-Sep, 3x per wk, 8 hrs per flush. Auto flushing gal/hr used to estimate manual flushing volume. Only data for Venetian Isles subdivision used for this estimate. Other flushing amounts not quantified (very few). Estimate of additional 30 MG used during boil advisory in Sept - Oct of 2008 due to hurricanes Gustav & Ike. Algiers (.1MG per year) estimate based on 2-3 flushing events per year for 2-3 hour duration. Flushing volume not metered but assumed to be approximately equal to 12K gallons/hr. 2010 assumes similar auto and manual flushing in Venetian Isles to maintain water quality. No emergency flushing in 2010. Limited flushing in Algiers.	
18	Plant Usage	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08												
19	Carrollton	1,483.0	1,488.0	1,428.0	1,450.4	1,435.3	1,507.2	1,526.1	1,501.2	1,513.0	1,466.0											Estimate based on approximately 3% of production.	
20	Algiers	103.0	99.0	111.0	107.7	123.5	126.8	128.4	123.2	118.1	113.7											Estimate based on approximately 3% of production.	
21	Total Authorized Water Consumption	23,837	20,590	23,452	22,821	23,114	22,682	23,258	23,621	21,560	21,583												

SWBNO Detailed Water Audit for FY 2008 - 2017
using American Water Works Association Format

III. Water Losses (Item I - Item II)											30,634	30,978	27,849	29,374	28,844	31,787	31,893	28,643	32,891	31,073											
IV. Documented Water Losses																															
A. Apparent Losses																															
Customer meter under registration		FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08	Assume 3% loss of consumption for each customer class.									
Residential, Commercial, Industrial		462	383	459	437	450	428	439	450	405	393	\$194,431	\$161,109	\$162,258	\$143,636	\$113,215	\$ 91,872	\$ 95,175	\$113,461	\$111,464	\$136,196										
Unauthorized Consumption (theft)		0	0	0	0	0	0	0	0	0	0																				
Customer meter malfunction (broken meter)		0	0	0	0	0	0	0	0	0	0																				
Accounts lacking proper billing		0	0	0	0	0	0	0	0	0	0																				
Accounts not entered into system																															
Conversion of data																															
Internal process failures																															
Leak adjustments (actual revenue loss)		0	0	0	0	0	0	0	0	0	0																				
Apparent Loss Total		462	383	459	437	450	428	439	450	405	393																				
B. Real Losses		FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08											See UARL worksheet for calculation.									
Operator error /overflows		0	0	0	0	0	0	0	0	0	0																				
Known																															
Unknown-SCADA problems																															
Unavoidable annual real loss (UARL)		814	813	782	779	771	727	704	682	697	668																				
Recoverable leakage																															
Transmission and distribution main leaks		0	0	0	0	0	0	0	0	0	0																				
Service lines		0	0	0	0	0	0	0	0	0	0																				
Leaks on private properties		0	0	0	0	0	0	0	0	0	0																				
Other Estimated Loss from Distribution Sys		0	0	0	0	0	0	0	0	0	0																				
		FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08										
Real Loss Total		814	813	782	779	771	727	704	682	697	668	\$342,530	\$341,969	\$276,424	\$256,123	\$193,920	\$156,064	\$152,577	\$171,830	\$191,818	\$231,517										
		FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08										
Documented Water Losses		1,277	1,196	1,241	1,216	1,221	1,155	1,142	1,133	1,102	1,061	\$536,961	\$503,078	\$438,682	\$399,759	\$307,134	\$247,936	\$247,752	\$285,290	\$303,282	\$367,713										
		FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08																				
Undocumented Water Losses		29,357	29,781	26,608	28,158	27,623	30,631	30,750	27,510	31,789	30,011											Item III - Item IV. Also referred to "Balancing Error (Gap)"									

Unavoidable Annual Real Loss Calculation FY2008 - FY2017

Assumptions	FY2017	FY2016	FY2015	FY2014	FY2013	FY2012	FY2011	FY2010	FY2009	FY2008	Notes
Miles of Main	1,826	1,823	1,819	1,812	1,806	1,599	1,519	1,590	1,791	1,791	2014, 2013, 2012, 2011, 2010 CAFR IV-32, 2008 CAFR, 2009 data duplicated 2
Average psi	62	62	62	62	62	62	62	62	62	62	Post Katrina East Bank psi avg is 62-68 psi. West Bank maintains 62 psi exiting treatment plants (Info on Recovery Drive).
Days in year	365	366	365	365	365	366	365	365	365	366	2008, 2012 and 2016 were leap years w/ 366 days.
Curb stop to meter connections	135,535	134,872	129,809	127,876	126,106	121,435	118,745	111,834	109,640	102,575	B&V Final Report on Operations
Average length of curb-stop to meter (ft)	30	30	30	30	30	30	30	30	30	30	Estimate used based on industry average (30)
		0.5%	3.9%	1.5%	1.4%	3.8%					

Calculation

Component	UARL factor	FY 2017 Calculation
Mains (gal/mile/day/psi)	5.41	223,554,076 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	460,073,558 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	130,702,715 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2017 Total		814,330,348

Component	UARL factor	FY 2016 Calculation
Mains (gal/mile/day/psi)	5.41	223,798,262 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	459,077,314 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	130,419,691 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2016 Total		813,295,267

Component	UARL factor	FY 2015 Calculation
Mains (gal/mile/day/psi)	5.41	222,697,078 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	434,075,082 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	125,180,867 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2015 Total		781,953,026

Component	UARL factor	FY 2014 Calculation
Mains (gal/mile/day/psi)	5.41	221,840,080 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	434,075,082 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	123,316,785 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2014 Total		779,231,946

Component	UARL factor	FY 2013 Calculation
Mains (gal/mile/day/psi)	5.41	221,105,510 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	428,066,817 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	121,609,891 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2013 Total		770,782,218

Component	UARL factor	FY 2012 Calculation
Mains (gal/mile/day/psi)	5.41	196,299,188 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	413,340,453 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	117,426,265 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2012 Total		727,065,906

Component	UARL factor	FY 2011 Calculation
Mains (gal/mile/day/psi)	5.41	185,968,588 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	403,079,903 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	114,511,336 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2011 Total		703,559,826

Component	UARL factor	FY 2010 Calculation
Mains (gal/mile/day/psi)	5.41	194,715,233 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	379,620,513 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	107,846,737 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2010 Total		682,182,482

Component	UARL factor	FY 2009 Calculation
Mains (gal/mile/day/psi)	5.41	219,269,085 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	372,172,980 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	105,730,960 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2009 Total		697,173,026

Component	UARL factor	FY 2008 Calculation
Mains (gal/mile/day/psi)	5.41	219,869,823 Mains x miles of main x avg. psi x days
Service Connections		
Units rate per gal/service connection/day/psi	0.15	349,144,785 units rate per gal x connections x avg. psi x days
Units rate per gal/mile/day/psi	7.5	99,188,859 units rate per gal/mile/day/psi x connections x avg. psi x days x avg length of curb-stop to meter
FY 2008 Total		668,203,467

FY 2017 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	54,471	148.83
		Plant Pumpage	
AUTHORIZED CONSUMPTION	Billed Metered:	15,408.00	42.21
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,364.50	3.74
	Unbilled Unmetered:	7,064.80	19.36
Total Authorized Consumption:		23,837.30	65.31
WATER LOSSES			
<u>Apparent Losses</u>	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies & Leak Adjustments:	462	1.27 3% Customer meter under registration and leak adjustments
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	462	1.27 "Paper loss"
<u>Real Losses</u>			
	Total Real Losses:	30,171	82.25 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		30,634	83.52 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,826	1,826 length (miles) of all pipelines except service connections
	Number of Service Connections:	135,535	135,535 number of customers
	Connection Density:	74	74 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 100,246,949	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 5,976.86	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 420.63	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
<u>Financial Indicators</u>			
	Non-revenue water as percent by volume:	71.6%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	18.9%	See footnote for formula
<u>Water Resources Indicators</u>			
	Inefficiency of use of water as a resource:	55.3%	Total Real Losses / Total System Input Volume
<u>Operational Efficiency Indicators</u>			
	Apparent Losses per as percent of system input volume:	0.9%	Total Apparent Losses / Total System Input Volume
Real losses per service connection per day (when system is pressurized):		606.88	Total Real Losses / Number of Service Connections
Real losses per mile of main per day (when system is pressurized):		45,046	Total Real Losses / Length of Mains
Real losses per service connection per day per psi (when system is pressurized):		9.79	Total Real Losses / Number of Service Connections / Average Operating Pressure
** Unavoidable Annual Real Losses (UARL):		2.23	UARL estimated using IWA method (See footnote)
Infrastructure Leakage Index (ILI) [Real Losses/UARL]:		36.87	

* Non-Revenue Water as Percent by Cost:	
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost	44,312.20
total apparent losses x customer retail unit cost	7,569.17
total nonrevenue water x 365 days	18,936,699.36
total nonrevenue water per day / total annual cost of operating water system	18.89%
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2017:	
length of mains x unit rate for UARL per gal/miles/day/psi	9,879
# of service connections x unit rate for UARL per gal/service/day/psi	20,330.25
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi	5,775.64
add totals	35,984.55
total x avg operating pressure	2,231,042.05
divide by 1,000,000 to calculate per MG per day	2.23

FY 2016 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	51,568	140.90
		Plant Pumpage	
AUTHORIZED CONSUMPTION	Billed Metered:	12,772.00	34.99
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,042.70	2.86
	Unbilled Unmetered:	6,775.50	18.56
Total Authorized Consumption:		20,590.20	56.41
WATER LOSSES			
Apparent Losses	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies & Leak Adjustments:	383	1.05 3% Customer meter under registration and leak adjustments
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	383	1.05 "Paper loss"
Real Losses	Total Real Losses:	30,595	83.43 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		30,978	84.48 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,823	1,823 length (miles) of all pipelines except service connections
	Number of Service Connections:	134,872	134,872 number of customers
	Connection Density:	74	74 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 89,478,097	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 6,477.02	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 420.47	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators	Non-revenue water as percent by volume:	75.2%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	20.8%	See footnote for formula
Water Resources Indicators	Inefficiency of use of water as a resource:	59.2%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators	Apparent Losses per as percent of system input volume:	0.7%	Total Apparent Losses / Total System Input Volume
	Real losses per service connection per day (when system is pressurized):	618.62	Total Real Losses / Number of Service Connections
	Real losses per mile of main per day (when system is pressurized):	45,768	Total Real Losses / Length of Mains
	Real losses per service connection per day per psi (when system is pressurized):	9.98	Total Real Losses / Number of Service Connections / Average Operating Pressure
	** Unavoidable Annual Real Losses (UARL):	2.22	UARL estimated using IWA method (See footnote)
	Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	37.55	
* Non-Revenue Water as Percent by Cost:			
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost		44,088.60	
total apparent losses x customer retail unit cost		6,799.27	
total nonrevenue water x 366 days		18,624,963.92	
total nonrevenue water per day / total annual cost of operating water system		20.82%	
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2016:			
length of mains x unit rate for UARL per gal/miles/day/psi		9,862	
# of service connections x unit rate for UARL per gal/service/day/psi		20,230.80	
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi		5,747.39	
add totals		35,840.62	
total x avg operating pressure		2,222,118.21	
divide by 1,000,000 to calculate per MG per day		2.22	

FY 2015 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	51,301	140.55
		Plant Pumpage	
AUTHORIZED CONSUMPTION	Billed Metered:	15,298.00	41.91
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,450.40	3.97
	Unbilled Unmetered:	6,704.00	18.37
Total Authorized Consumption:		23,452.40	64.25
WATER LOSSES			
Apparent Losses	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies & Leak Adjustments:	459	1.26 3% Customer meter under registration and leak adjustments
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	459	1.26 "Paper loss"
Real Losses	Total Real Losses:	27,390	75.04 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		27,849	76.30 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,819	1,819 length (miles) of all pipelines except service connections
	Number of Service Connections:	129,809	129,809 number of customers
	Connection Density:	71	71 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 84,854,293	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 5,066.41	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 353.50	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators	Non-revenue water as percent by volume:	70.2%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	17.5%	See footnote for formula
Water Resources Indicators	Inefficiency of use of water as a resource:	53.4%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators	Apparent Losses per as percent of system input volume:	0.9%	Total Apparent Losses / Total System Input Volume
	Real losses per service connection per day (when system is pressurized):	578.08	Total Real Losses / Number of Service Connections
	Real losses per mile of main per day (when system is pressurized):	41,253	Total Real Losses / Length of Mains
	Real losses per service connection per day per psi (when system is pressurized):	9.32	Total Real Losses / Number of Service Connections / Average Operating Pressure
	** Unavoidable Annual Real Losses (UARL):	2.16	UARL estimated using IWA method (See footnote)
	Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	34.74	
* Non-Revenue Water as Percent by Cost:			
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost		34,424.51	
total apparent losses x customer retail unit cost		6,371.19	
total nonrevenue water x 365 days		14,890,428.75	
total nonrevenue water per day / total annual cost of operating water system		17.55%	
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2015:			
length of mains x unit rate for UARL per gal/miles/day/psi		9,841	
# of service connections x unit rate for UARL per gal/service/day/psi		19,471.35	
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi		5,531.63	
add totals		34,843.77	
total x avg operating pressure		2,160,313.96	
divide by 1,000,000 to calculate per MG per day		2.16	

FY 2014 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	52,195	143.00
Plant Pumpage			
AUTHORIZED CONSUMPTION	Billed Metered:	14,570.00	39.92
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,415.00	3.88
	Unbilled Unmetered:	6,836.61	18.73
Total Authorized Consumption:		22,821.61	62.52
WATER LOSSES			
Apparent Losses	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies & Leak Adjustments:	437	1.20 3% Customer meter under registration and leak adjustments
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	437	1.20 "Paper loss"
Real Losses			
	Total Real Losses:	28,936	79.28 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		29,373	80.48 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,812	1,812 length (miles) of all pipelines except service connections
	Number of Service Connections:	127,876	127,876 number of customers
	Connection Density:	71	71 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 88,562,278	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 5,540.34	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 328.69	Energy & Chemicals / Total Finished Water Delivered
Total Consumption is Billed and Unbilled Metered			
PERFORMANCE INDICATORS			
Financial Indicators			
	Non-revenue water as percent by volume:	72.1%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	16.5%	See footnote for formula
Water Resources Indicators			
	Inefficiency of use of water as a resource:	55.4%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators			
	Apparent Losses per as percent of system input volume:	0.8%	Total Apparent Losses / Total System Input Volume
Real losses per service connection per day (when system is pressurized):		619.96	Total Real Losses / Number of Service Connections
Real losses per mile of main per day (when system is pressurized):		43,752	Total Real Losses / Length of Mains
Real losses per service connection per day per psi (when system is pressurized):		10.00	Total Real Losses / Number of Service Connections / Average Operating Pressure
** Unavoidable Annual Real Losses (UARL):		2.13	UARL estimated using IWA method (See footnote)
Infrastructure Leakage Index (ILI) [Real Losses/UARL]:		37.13	

Non-Revenue Water as Percent by Cost:	
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost	33,488.19
total apparent losses x customer retail unit cost	6,633.22
total nonrevenue water x 365 days	14,644,315.69
total nonrevenue water per day / total annual cost of operating water system	16.54%
IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2014:	
length of mains x unit rate for UARL per gal/miles/day/psi	9,803
# of service connections x unit rate for UARL per gal/service/day/psi	19,181.40
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi	5,449.26
add totals	34,433.58
total x avg operating pressure	2,134,882.04
divide by 1,000,000 to calculate per MG per day	2.13

FY 2013 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	51,958	142.35
		Plant Pumpage	
AUTHORIZED CONSUMPTION	Billed Metered:	14,992.00	41.07
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,338.50	3.67
	Unbilled Unmetered:	6,783.53	18.59
Total Authorized Consumption:		23,114.03	63.33
WATER LOSSES			
Apparent Losses	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies & Leak Adjustments:	450	1.23 3% Customer meter under registration and leak adjustments
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	450	1.23 "Paper loss"
Real Losses			
	Total Real Losses:	28,394	77.79 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		28,844	79.02 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,806	1,806 length (miles) of all pipelines except service connections
	Number of Service Connections:	126,106	126,106 number of customers
	Connection Density:	70	70 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 64,170,327	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 3,929.48	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 251.59	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators			
	Non-revenue water as percent by volume:	71.1%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	17.1%	See footnote for formula
Water Resources Indicators			
	Inefficiency of use of water as a resource:	54.6%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators			
	Apparent Losses per as percent of system input volume:	0.9%	Total Apparent Losses / Total System Input Volume
Real losses per service connection per day (when system is pressurized):		616.88	Total Real Losses / Number of Service Connections
Real losses per mile of main per day (when system is pressurized):		43,074	Total Real Losses / Length of Mains
Real losses per service connection per day per psi (when system is pressurized):		9.95	Total Real Losses / Number of Service Connections / Average Operating Pressure
** Unavoidable Annual Real Losses (UARL):		2.11	UARL estimated using IWA method (See footnote)
Infrastructure Leakage Index (ILI) [Real Losses/UARL]:		36.84	

* Non-Revenue Water as Percent by Cost:	
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost	25,169.83
total apparent losses x customer retail unit cost	4,844.56
total nonrevenue water x 365 days	10,955,254.03
total nonrevenue water per day / total annual cost of operating water system	17.07%
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2013:	
length of mains x unit rate for UARL per gal/miles/day/psi	9,770
# of service connections x unit rate for UARL per gal/service/day/psi	18,915.90
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi	5,373.84
add totals	34,060.20
total x avg operating pressure	2,111,732.10
divide by 1,000,000 to calculate per MG per day	2.11

FY 2012 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	54,469	149.23 Plant Pumpage
AUTHORIZED CONSUMPTION	Billed Metered:	14,267.00	39.09
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,295.20	3.55
	Unbilled Unmetered:	7,120.36	19.51
Total Authorized Consumption:		22,682.56	62.14
WATER LOSSES			
Apparent Losses	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies & Leak Adjustments:	428	1.17 3% Customer meter under registration and leak adjustments
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	428	1.17 "Paper loss"
Real Losses	Total Real Losses:	31,358	85.91 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		31,786	87.09 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,599	1,599 length (miles) of all pipelines except service connections
	Number of Service Connections:	121,435	121,435 number of customers
	Connection Density:	76	76 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 61,988,096	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 3,983.25	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 214.65	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators	Non-revenue water as percent by volume:	73.8%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	16.5%	See footnote for formula
Water Resources Indicators	Inefficiency of use of water as a resource:	57.6%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators	Apparent Losses per as percent of system input volume:	0.8%	Total Apparent Losses / Total System Input Volume
	Real losses per service connection per day (when system is pressurized):	707.49	Total Real Losses / Number of Service Connections
	Real losses per mile of main per day (when system is pressurized):	53,730	Total Real Losses / Length of Mains
	Real losses per service connection per day per psi (when system is pressurized):	11.41	Total Real Losses / Number of Service Connections / Average Operating Pressure
	** Unavoidable Annual Real Losses (UARL):	1.99	UARL estimated using IWA method (See footnote)
	Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	43.25	

* Non-Revenue Water as Percent by Cost:	
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost	23,390.31
total apparent losses x customer retail unit cost	4,670.88
total nonrevenue water x 365 days	10,242,331.32
total nonrevenue water per day / total annual cost of operating water system	16.52%
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2012:	
length of mains x unit rate for UARL per gal/miles/day/psi	8,651
# of service connections x unit rate for UARL per gal/service/day/psi	18,215.25
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi	5,174.79
add totals	32,040.63
total x avg operating pressure	1,986,518.87
divide by 1,000,000 to calculate per MG per day	1.99

FY 2011 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	55,151	151.10
Plant Pumpage			
AUTHORIZED CONSUMPTION	Billed Metered:	14,629.00	40.08
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,422.50	3.90
	Unbilled Unmetered:	7,206.84	19.74
Total Authorized Consumption:		23,258.34	63.72
WATER LOSSES			
Apparent Losses			
	Unauthorized Consumption:	0.00	0.00
	Customer Metering Inaccuracies & Leak Adjustments:	439	1.20
	Data Handling Errors:	-	0.00
	Total Apparent Losses:	439	1.20
Theft or illegal use 3% Customer meter under registration and leak adjustments Accounts lacking proper billing (no estimation available) "Paper loss"			
Real Losses			
	Total Real Losses:	31,454	86.17
Physical loss of water from the distribution system			
TOTAL WATER LOSSES:		31,893	87.38
Apparent Losses plus Real Losses			
SYSTEM DATA			
	Length of Mains:	1,519	1,519
	Number of Service Connections:	118,745	118,745
	Connection Density:	78	78
	Average Length (feet) of Private Pipe:	30.0	30
(pipe length between curbside customer meter or property boundary)	Average Operating Pressure:	62.00	62
			psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 64,677,227	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 4,029.36	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 216.86	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators			
	Non-revenue water as percent by volume:	73.5%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	16.2%	See footnote for formula
Water Resources Indicators			
	Inefficiency of use of water as a resource:	57.0%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators			
	Apparent Losses per as percent of system input volume:	0.8%	Total Apparent Losses / Total System Input Volume
	Real losses per service connection per day (when system is pressurized):	725.71	Total Real Losses / Number of Service Connections
	Real losses per mile of main per day (when system is pressurized):	56,731	Total Real Losses / Length of Mains
	Real losses per service connection per day per psi (when system is pressurized):	11.71	Total Real Losses / Number of Service Connections / Average Operating Pressure
	** Unavoidable Annual Real Losses (UARL):	1.93	UARL estimated using IWA method (See footnote)
	Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	44.71	

* Non-Revenue Water as Percent by Cost:

(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost	23,815.29
total apparent losses x customer retail unit cost	4,844.83
total nonrevenue water x 365 days	10,460,945.02
total nonrevenue water per day / total annual cost of operating water system	16.17%

** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2011:

length of mains x unit rate for UARL per gal/miles/day/psi	8,218
# of service connections x unit rate for UARL per gal/service/day/psi	17,811.75
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi	5,060.16
add totals	31,089.70
total x avg operating pressure	1,927,561.17
divide by 1,000,000 to calculate per MG per day	1.93

FY 2010 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	52,264	143.19
		Plant Pumpage	
AUTHORIZED CONSUMPTION	Billed Metered:	15,015.00	41.14
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,744.40	4.78
	Unbilled Unmetered:	6,861.80	18.80
Total Authorized Consumption:		23,621.20	64.72
WATER LOSSES			
Apparent Losses			
	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies & Leak Adjustments:	450	1.23 3% Customer meter under registration and leak adjustments
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	450	1.23 "Paper loss"
Real Losses			
	Total Real Losses:	28,192	77.24 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		28,643	78.47 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,590	1,590 length (miles) of all pipelines except service connections
	Number of Service Connections:	109,640	109,640 number of customers
	Connection Density:	69	69 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 53,161,832	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 3,172.06	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 251.88	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators			
	Non-revenue water as percent by volume:	71.3%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	20.1%	See footnote for formula
Water Resources Indicators			
	Inefficiency of use of water as a resource:	53.9%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators			
	Apparent Losses per as percent of system input volume:	0.9%	Total Apparent Losses / Total System Input Volume
	Real losses per service connection per day (when system is pressurized):	704.48	Total Real Losses / Number of Service Connections
	Real losses per mile of main per day (when system is pressurized):	48,565	Total Real Losses / Length of Mains
	Real losses per service connection per day per psi (when system is pressurized):	11.36	Total Real Losses / Number of Service Connections / Average Operating Pressure
	** Unavoidable Annual Real Losses (UARL):	1.84	UARL estimated using IWA method (See footnote)
	Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	41.91	

* Non-Revenue Water as Percent by Cost:	
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost	25,394.29
total apparent losses x customer retail unit cost	3,914.67
total nonrevenue water x 365 days	10,697,769.69
total nonrevenue water per day / total annual cost of operating water system	20.12%
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2010:	
length of mains x unit rate for UARL per gal/miles/day/psi	8,604
# of service connections x unit rate for UARL per gal/service/day/psi	16,446.00
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi	4,672.16
add totals	29,722.46
total x avg operating pressure	1,842,792.25
divide by 1,000,000 to calculate per MG per day	1.84

FY 2009 PERFORMANCE INDICATORS

		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	54,451	149.18
		Plant Pumpage	
AUTHORIZED CONSUMPTION	Billed Metered:	13,504.00	37.00
	Billed Unmetered:	-	0.00
	Unbilled Metered:	971.80	2.66
	Unbilled Unmetered:	7,083.86	19.41
Total Authorized Consumption:		21,559.66	59.07
WATER LOSSES			
Apparent Losses	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies:	405.12	1.11 Customer meter under registration
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	405.12	1.11 "Paper loss"
Real Losses	Total Real Losses:	32,486.22	89.00 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		32,891.34	90.11 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,791	1,791 length (miles) of all pipelines except service connections
	Number of Service Connections:	109,640	109,640 number of customers
	Connection Density:	61	61 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 51,983,969	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 3,591.09	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 275.14	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators	Non-revenue water as percent by volume:	75.2%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	24.3%	See footnote for formula
Water Resources Indicators	Inefficiency of use of water as a resource:	59.7%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators	Apparent Losses per as percent of system input volume:	0.7%	Total Apparent Losses / Total System Input Volume
	Real losses per service connection per day (when system is pressurized):	811.78	Total Real Losses / Number of Service Connections
	Real losses per mile of main per day (when system is pressurized):	49,695	Total Real Losses / Length of Mains
	Real losses per service connection per day per psi (when system is pressurized):	13.09	Total Real Losses / Number of Service Connections / Average Operating Pressure
	** Unavoidable Annual Real Losses (UARL):	1.91	UARL estimated using IWA method (See footnote)
	Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	46.60	
* Non-Revenue Water as Percent by Cost:			
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost		30,560.51	
total apparent losses x customer retail unit cost		3,985.82	
total nonrevenue water x 365 days		12,609,409.84	
total nonrevenue water per day / total annual cost of operating water system		24.26%	
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2009:			
length of mains x unit rate for UARL per gal/miles/day/psi		9,689	
# of service connections x unit rate for UARL per gal/service/day/psi		16,446.00	
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi		4,672.16	
add totals		30,807.47	
total x avg operating pressure		1,910,063.08	
divide by 1,000,000 to calculate per MG per day		1.91	

FY 2008 PERFORMANCE INDICATORS

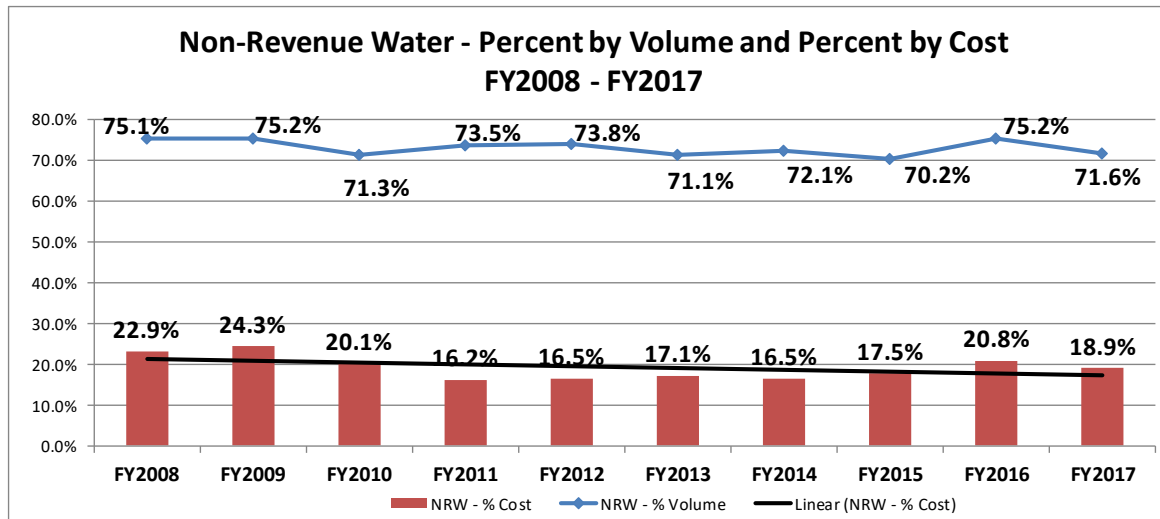
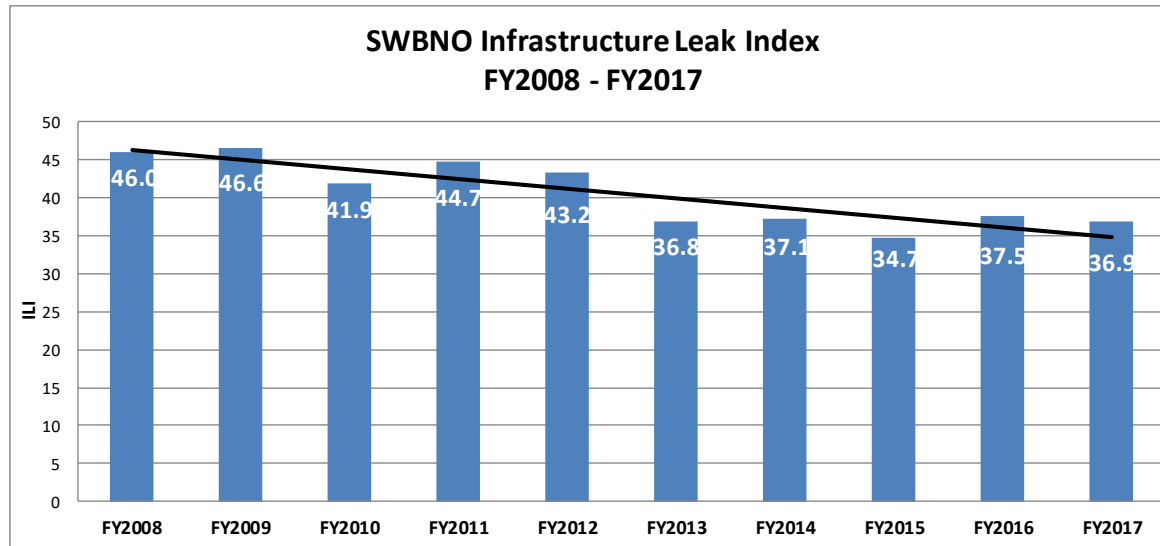
		MG	
		Per Year	Per Day
FINISHED WATER DELIVERED	Total System Input Volume:	52,656	144.26
		Plant Pumpage	
AUTHORIZED CONSUMPTION	Billed Metered:	13,103.00	35.90
	Billed Unmetered:	-	0.00
	Unbilled Metered:	1,599.30	4.38
	Unbilled Unmetered:	6,880.99	18.85
Total Authorized Consumption:		21,583.29	59.13
WATER LOSSES			
Apparent Losses	Unauthorized Consumption:	0.00	0.00 Theft or illegal use
	Customer Metering Inaccuracies:	393.09	1.08 Customer meter under registration
	Data Handling Errors:	-	0.00 Accounts lacking proper billing (no estimation available)
	Total Apparent Losses:	393.09	1.08 "Paper loss"
Real Losses			
	Total Real Losses:	30,679.62	84.05 Physical loss of water from the distribution system
TOTAL WATER LOSSES:		31,072.71	85.13 Apparent Losses plus Real Losses
SYSTEM DATA			
	Length of Mains:	1,791	1,791 length (miles) of all pipelines except service connections
	Number of Service Connections:	102,575	102,575 number of customers
	Connection Density:	57	57 # of connections / length of mains (miles)
(pipe length between curbside customer meter or property boundary)	Average Length (feet) of Private Pipe:	30.0	30 length between stop & main (not included in length of main)
	Average Operating Pressure:	62.00	62 psi
COST DATA			
	Total Annual Cost of Operating Water System Per Year:	\$ 66,989,084	Total O&M
	Customer Retail Unit Cost Per MG:	\$ 4,556.37	Total O&M / Total Consumption Sold
	Short-Term Marginal Production Cost Per MG:	\$ 346.48	Energy & Chemicals / Total Finished Water Delivered
PERFORMANCE INDICATORS			
Financial Indicators			
	Non-revenue water as percent by volume:	75.1%	Unbilled Metered & Unmetered plus Total Water Losses / Total System Input Volume
	* Non-revenue water as percent by cost:	22.9%	See footnote for formula
Water Resources Indicators			
	Inefficiency of use of water as a resource:	58.3%	Total Real Losses / Total System Input Volume
Operational Efficiency Indicators			
	Apparent Losses per as percent of system input volume:	0.7%	Total Apparent Losses / Total System Input Volume
Real losses per service connection per day (when system is pressurized):		819.44	Total Real Losses / Number of Service Connections
Real losses per mile of main per day (when system is pressurized):		46,931	Total Real Losses / Length of Mains
Real losses per service connection per day per psi (when system is pressurized):		13.22	Total Real Losses / Number of Service Connections / Average Operating Pressure
** Unavoidable Annual Real Losses (UARL):		1.83	UARL estimated using IWA method (See footnote)
Infrastructure Leakage Index (ILI) [Real Losses/UARL]:		46.04	

* Non-Revenue Water as Percent by Cost:	
(unbilled metered + unbilled unmetered + total real losses) x short-term marginal production cost	37,172.58
total apparent losses x customer retail unit cost	4,907.02
total nonrevenue water x 365 days	15,359,055.14
total nonrevenue water per day / total annual cost of operating water system	22.93%
** IWA/AWWA Calculation for Unavoidable Annual Real Loss (UARL) for FY2008:	
length of mains x unit rate for UARL per gal/miles/day/psi	9,689
# of service connections x unit rate for UARL per gal/service/day/psi	15,386.25
(# of service connections x avg length of pipe / 5280 ft/mile) x unit rate per gal/mile/day/psi	4,371.09
add totals	29,446.65
total x avg operating pressure	1,825,692.53
divide by 1,000,000 to calculate per MG per day	1.83

SWBNO Detailed Water Audit
Cost Data FY2008 - FY2017

Annual Costs										Source	
	<u>FY2017</u>	<u>FY2016</u>	<u>FY2015</u>	<u>FY2014</u>	<u>FY2013</u>	<u>FY2012</u>	<u>FY2011</u>	<u>FY2010</u>	<u>FY2009</u>	<u>FY2008</u>	
O&M Costs	100,246,949	89,478,097	84,854,293	88,562,278	\$64,170,327	\$61,988,096	\$64,677,227	\$53,161,832	\$51,983,969	\$66,989,084	2014 CAFR II-71, Schedule 2, 2013 CAFR II-67, 2012, 2011, 2010 CAFR II-258, 2009 and 2008 CAFR II-57
Total Chem and Energy	22,912,020	21,682,981	18,135,108	17,155,785	\$13,072,012	\$11,691,736	\$11,960,257	\$13,164,393	\$14,981,504	\$18,244,072	AFIN 880C-13th 2014, 2013, 2012, 2011, 2010, 2009, 2008
Total Metered Sales Revenue											
	<u>FY2017</u>	<u>FY2016</u>	<u>FY2015</u>	<u>FY2014</u>	<u>FY2013</u>	<u>FY2012</u>	<u>FY2011</u>	<u>FY2010</u>	<u>FY2009</u>	<u>FY2008</u>	
	90,464,810	83,158,940	78,007,937	70,818,255	\$64,397,609	\$60,256,304	\$59,890,312	\$55,079,772	\$50,677,054	\$43,995,732	2014 CAFR II-71, Schedule 2, 2013 CAFR II-67, 2012, 2011, 2010 CAFR II-58, 2009 and 2008 CAFR II-57
Total Consumption										Source	
	<u>FY2017</u>	<u>FY2016</u>	<u>FY2015</u>	<u>FY2014</u>	<u>FY2013</u>	<u>FY2012</u>	<u>FY2011</u>	<u>FY2010</u>	<u>FY2009</u>	<u>FY2008</u>	
	19,250	13,107	13,810	13,353	13,600	13,802	14,083	13,745	13,379	13,284	2013 & 2014 CAFR IV-8, 2012, 2011, 2010, 2009, 2008 CAFR IV-9
Revenue / Consumption										Source	
	<u>FY2017</u>	<u>FY2016</u>	<u>FY2015</u>	<u>FY2014</u>	<u>FY2013</u>	<u>FY2012</u>	<u>FY2011</u>	<u>FY2010</u>	<u>FY2009</u>	<u>FY2008</u>	
	469,947	634,462	564,866	530,355	473,512	436,577	425,267	400,726	378,781	331,193	Total metered sales revenue / total consumption

SWBNO Detailed Water Audit
ILI and NRW Charts
FY 2008 - FY2017



**SWBNO Detailed Water Audit
FY2008 - FY2017
Performance Indicator Summary**

PERFORMANCE INDICATOR	FISCAL YEAR										Change	10 Year AVG
	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>FY17 vs. 08</u>	<u>FY08-17</u>
<u>Financial Indicators</u>												
Non-Revenue Water as % by Cost	22.9%	24.3%	20.1%	16.2%	16.5%	17.1%	16.5%	17.5%	20.8%	18.9%	-4.0%	19.1%
Non-Revenue Water as % by Volume	75.1%	75.2%	71.3%	73.5%	73.8%	71.1%	72.1%	70.2%	75.2%	71.6%	-3.5%	72.9%
<u>Water Resources Indicators</u>												
Inefficiency of use of Water as a Resource	58.3%	59.7%	53.9%	57.0%	57.6%	54.6%	55.4%	53.4%	59.2%	55.3%	-3.0%	56.4%
<u>Operational Efficiency Indicators</u>												
Apparent Losses - % of System Input Volume	0.75%	0.74%	0.86%	0.80%	0.79%	0.87%	0.84%	0.89%	0.75%	0.85%	0.1%	0.8%
Real Losses per Service Connection per Day	819.4	811.8	704.5	725.7	707.5	616.9	620.0	578.1	618.6	606.9	-212.6	680.9
Real losses per Mile of Main per Day	46,931	49,695	48,565	56,731	53,730	43,074	43,752	41,253	45,768	45,046	-1,885	47,454
Real Losses per Serv Conn per Day per psi	13.2	13.1	11.4	11.7	11.4	9.9	10.0	9.3	10.0	9.8	-3.43	11.0
Unavoidable Annual Real Losses (UARL)	1.83	1.91	1.84	1.93	1.99	2.11	2.13	2.16	2.22	2.23	0.41	2.0
Infrastructure Leakage Index (ILI)	46.0	46.6	41.9	44.7	43.2	36.8	37.1	34.7	37.5	36.9	-9.17	40.6

CONTRACT AMENDMENT NO. 3 TO THE AGREEMENT BETWEEN SEWERAGE AND WATER BOARD OF NEW ORLEANS AND RICHARD CPAS, LLC FOR INDEPENDENT FINANCIAL AUDITING PROFESSIONAL SERVICES

WHEREAS, on July 12, 2018, the Sewerage & Water Board of New Orleans entered a contract with Richard CPAS, LLC to render professional services to support the 2017 audit and annual financial statement preparation in the amount of \$15,000.00; and

WHEREAS, the contract has been previously amended by the Board to complete the 2017 audit and support the 2018 year-end closing process for a total of \$130,000.00, bringing the total contract value to \$145,000,000; and

WHEREAS, additional support is needed to compete the 2018 financial statements on time; and

WHEREAS, this request for ratification of an additional \$75,000.00 will increase the contract amount to a total of \$220,000.00;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Sewerage and Water Board hereby approves ratification of Contract Amendment No. 3 to the Professional Services Agreement between the Board and Richard CPAS, LLC, for independent financial auditing services, to extend this contract through June 30, 2019, in an amount not to exceed \$75,000, for a total contract amount not to exceed \$220,000.00.

I, Ghassan Korban, 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 March 20, 2019.

Ghassan Korban
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

625 ST. JOSEPH STREET
NEW ORLEANS, LA 70165 • 504-529-2837 OR 52-WATER
www.swbno.org

Date: February 27, 2019

From: Conestler Green, Buyer III of Procurement

To: Candace Newell
Sewerage and Water Board New Orleans- Board Relations

Re: Executive Director's Approval of Contracts of \$1,000,000.00 or less

1. MST Enterprises, LLC.
P O Box 641871
Kenner, LA. 70064-1871

- **Furnishing Limestone**
- Start Date: 04/1/19 thru 03/31/20 with (1) one-year renewal option
- \$198,000.00 annually

2. Siemens Industry, Inc.
150 Teal St.
St. Rose, LA 70087

- **Furnishing Air Conditioning and Heating Maintenance for Central Yard**
- Start Date: 04/1/19 thru 03/31/20 with (2) one-year renewal option
- \$74,990.00 annually

3. Sonja Carter - Items # 18, and 26
2230 Lapeyrouse St.
New Orleans, LA 70119

TOTAL AMOUNT - \$1,200.00

4. Week's Auction - Items #6,10,11,13,14,15,17,20,21,23,24,29,32,33,
4851 West Hwy 34,35,39,46,51,52,53,55,56,57, and 59.
Ocala, FL 34482

TOTAL AMOUNT - \$116,261.00

5. Dixie Auto Sales -Items #16,19,25,28,30,31,36,37,38,40,41,42,43,
8391 Hwy. 165 44,45,47,48,49,50,54, 58, and 60.
Pollock, LA 71467

TOTAL AMOUNT - \$116,105.00

6. EMR - Items #1,2,3,4,5,7,8,9,12,22, and 27.
4801 Florida Ave.
New Orleans, LA. 70117

TOTAL AMOUNT - \$1,926.00

- **The Sale of Junked Automobiles, Small Pickups, Medium Trucks, Trailers and other Heavy Equipment**

7. Sterling Water Technologies, LLC
P O Box 602
Columbia, TN 38402-0602

- **Furnishing Liquid Polyphosphate**
 - Start Date 3/1/19 thru 3/30/20
 - \$295,920.00 annually
-
- Upon request, complete contract available for review in Procurement office

**GENERAL SUPERINTENDENT RECOMMENDATIONS
FOR THE MARCH 20, 2019 MEETING**

A. CONTRACT FINAL ACCEPTANCE. A listing of contract renewals for the month of February 2018 is included in the following report. A brief summary is attached for your review.

- Item 1 - R-045-2019 - EE-17-0007 - TEMPORARY GENERATOR
RENTAL AT STATION D
- R-002-2019 - CO-17-0010 - EMERGENCY REPAIRS FOR
TURBINE 3 Phase I
 - R-046-2019 - EE-17-0011 - FURNISHING SWITCHGEAR
EQUIPMENT FOR STG NO. 4
 - R-044-2019 - EE-17-0015 - EMD SCADA PROJECT
 - R-039-2019 - CO-17-0019 - EMERGENCY REPAIRS FOR
TURBINE 3 Phase II
 - R-040-2019 - ME 17-0020 - EMERGENCY TEMPORARY
GENERATORS AT 8 DRAINAGE UNDERPASS
STATIONS
 - R-031-2019 - CONTRACT 2126 - WATER MAIN POINT
REPAIR, WATER SERVICE CONNECTION,
WATER VALVE AND FIRE HYDRANT
REPLACEMENT AT VARIOUS SITES
THROUGHOUT ORLEANS PARISH
 - R-035-2019 - CONTRACT 2135 - EMERGENCY REPAIR
CONTRACT FOR WINTER FREEZE EVENT
(INGA) - WATER MAIN POINT REPAIR,
WATER SERVICE CONNECTION, WATER VALVE
AND FIRE HYDRANT REPLACEMENT AT
VARIOUS SITES THROUGHOUT ORLEANS
PARISH
 - R-032-2019 - CONTRACT 2136 - EMERGENCY REPAIR
CONTRACT FOR WINTER FREEZE EVENT
(INGA) - WATER MAIN POINT REPAIR,
WATER SERVICE CONNECTION, WATER VALVE
AND FIRE HYDRANT REPLACEMENT AT
VARIOUS SITES THROUGHOUT ORLEANS
PARISH

- R-029-2019 - CONTRACT 30203 - RESTORATION OF GRAVITY FLOW SEWER MAINS BY POINT REPAIR AT VARIOUS SITES THROUGHOUT ORLEANS PARISH
- R-041-2019 - ME 17-0023- ACCELERATED SCOPE ASSOCIATED WITH POWER EMERGENCY EVENT FOR CONTRACT 6259

**GENERAL SUPERINTENDENT RECOMMENDATIONS
REPORT OF FINAL ACCEPTANCE TO BE
CONSIDERED BY THE FINANCE AND ADMINISTRATION COMMITTEE
AND THE BOARD'S MEETING OF MARCH 20, 2019**

The final acceptance contracts for the month of February 2019 are as follows:

1.

REPORT OF FINAL ACCEPTANCE

PROPOSAL:

Contracts EE 17-0007, ME-17-0010, EE 17-0011, EE-17-0015, CO-17-0019, ME 17-0020, 2126, 2135, 2136, 30203 and ME 17-0023, be considered for acceptance.

EVALUATION:

EE-17-0007 - **ARCCO** - Temporary Generator Rental at Station D. Total Contract Bid \$8,912,736.68. Total Contract Expenditure \$8,574,997.40. Date Notice To Proceed Issued November 1, 2017. Date Work Accepted October 1, 2018. No DBE participation.

CO-17-0010 - **Siemens** - Emergency Repairs for Turbine 3 Phase I. Total Contract Bid \$500,000.00. Total Contract Expenditure \$3,403,054.75. Date Notice To Proceed Issued March 10, 2017. Date Work Accepted October 4, 2017.

EE-17-0011 - **POINT EIGHT POWER** - Furnishing Switchgear Equipment for STG No. 4. Total Contract Bid \$647,664.00. Total Contract Expenditure \$638,219.86. Date Notice To Proceed Issued November 1, 2017. Date Work Accepted May 31, 2018. There is no DBE participation.

EE-17-0015 - **ARCCO** - EMD SCADA Project. Total Contract Bid \$42,618.07. Total Contract Expenditure \$42,618.07. Date Notice To Proceed Issued November 1, 2017. Date Work Accepted May 31, 2018. There is no DBE participation.

CO-17-0019 - **Siemens** - Emergency Repairs for Turbine 3 Phase II. Total Contract Bid \$777,186.87. Total Contract Expenditure \$1,716,373.74. Date Notice To Proceed Issued November 8, 2017. Date Work Accepted May 31, 2018.

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

March 20, 2019

Page 2

ME 17-0020 - **Industrial & Mechanical Contractors, Inc.** -
Emergency Temporary Generators at 8 Drainage Underpass Stations.
Total Contract Bid \$623,841.16. Total Contract Expenditure
\$917,482.40. Date Work Order Issued July 5, 2016. Date Work
Accepted September 18, 2018. There is no DBE participation.

Contract 2126 - **Wallace Drennan** - Water Main Point Repair, Water
Service Connection, Water Valve and Fire Hydrant Replacement at
Various Sites Throughout Orleans Parish. Total Contract Bid
\$5,888,880.00. Total Contract Expenditure \$8,919,825.80. Date
Work Order Issued July 19, 2016. The DBE Participation Goal is
36%. The DBE Participation Achieved is 36%.

Contract 2135 - **Boh Bros. Construction Co., LLC** - Emergency
Repair Contract for Winter Freeze Event (INGA) - Water Main Point
Repair, Water Service Connection, Water Valve and Fire Hydrant
Replacement at Various Sites Throughout Orleans Parish. Total
Contract Bid \$1,772,290.00. Total Contract Expenditure
\$1,707,848.63. Date Work Order Issued January 23, 2018. Date
Work Accepted February 12, 2019. The DBE Participation Goal is
36%. The DBE Participation Achieved is 38.7%.

Contract 2136 - **Grady-Crawford Construction Co.** - Emergency
Repair Contract for Winter Freeze Event (INGA) - Water Main Point
Repair, Water Service Connection, Water Valve and Fire Hydrant
Replacement at Various Sites Throughout Orleans Parish. Total
Contract Bid \$1,117,409.00. Total Contract Expenditure
\$643,526.05. Date Work Order Issued January 23, 2018. Date Work
Accepted January 4, 2019. The DBE Participation Goal is 36%. The
DBE Participation Achieved is 18.7%.

Contract 30203 - **Wallace Drennan** - Restoration of Gravity Flow
Sewer Mains by Point Repair at Various Sites Throughout Orleans
Parish. Total Contract Bid \$3,866,992.00. Total Contract
Expenditure \$11,912,776.80. Date Work Order Issued January 17,
2017. The DBE Participation Goal is 36%. The DBE Participation
Achieved is 43.19%.

GENERAL SUPERINTENDENT RECOMMENDATIONS (CONT'D)

March 20, 2019

Page 3

ME 17-0023 - **Industrial & Mechanical Contractors, Inc.** -
Accelerated Scope Associated with Power Emergency Event for
Contract 6259. Total Contract Bid \$392,113.42. Total Contract
Expenditure \$392,113.42. Date Work Order Issued December 6,
2017. Date Work Accepted September 18, 2018. The DBE
Participation Goal is 36%. The DBE Participation Achieved is 18%.

RECOMMENDATION:

The above contracts are recommended for acceptance.

RT
RMAR19.GSR



SEWERAGE AND WATER BOARD OF NEW ORLEANS

March 13, 2019

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

Re: Financial Results through January 2019

Attached are 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 January 2019. The Variance Indicators for Financial Results through January 2019 is also attached. Also, attached is the Unrestricted Cash in days through January 2019. The *Statement of Net Assets* and the *Statement of Cash Flows* will be provided after the completion of the 2018 audit.

Operating Revenues:

Water System Fund (pages 7 and 8, line 5) January 2019 MTD operating revenues of \$8,235,409 is \$511,061 (or 5.8%) less than budgeted and \$2,028,416 (or 32.7%) more than January 2018 MTD. January 2019 YTD operating revenues of \$8,235,409 is \$511,061 (or 5.8%) less than budgeted and \$2,028,416 (or 32.7%) more than January 2018 YTD.

Sewer System Fund (pages 13 and 14, line 5) January 2019 MTD operating revenues of \$10,860,807 is \$169,737 (or 1.6%) more than budgeted and \$3,268,055 (or 43.0%) more than January 2018 MTD. January 2019 YTD operating revenues of \$10,860,807 is \$169,737 (or 1.6%) more than budgeted and \$3,268,055 (or 43.0%) more than January 2018 YTD.

Drainage System Fund (pages 19 and 20, line 5) January 2019 MTD operating revenues of \$2,261,798 (or 100.0%) more than budgeted and is \$2,311,081 (or 4689.4%) more than January 2018 MTD. January 2019 YTD operating revenues of \$2,261,798 (or 100.0%) more than budgeted and is \$2,311,081 (or 4689.4%) more than January 2018 YTD.

Total System Funds (pages 1 and 2, line 5) January 2019 MTD operating revenues of \$21,358,014 is \$1,920,474 (or 9.9%) more than budgeted and \$7,607,552 (or 55.3%) more than January 2018 MTD. January 2019 YTD operating revenues of \$21,358,014 is \$1,920,474 (or 9.9%) more than budgeted and \$7,607,552 (or 55.3%) more than January 2018 YTD.

Operating Expenses:

Water System Fund (pages 7 and 8, line 18) January 2019 MTD operating expenses of \$2,700,956 is \$5,852,311 (or 68.4%) less than budgeted and \$3,262,517 (or 54.7%) less than January 2018 MTD. January 2019 YTD operating expenses of \$2,700,956 is \$5,852,311 (or 68.4%) less than budgeted and \$3,262,517 (or 54.7%) less than January 2018 YTD.

Sewer System Fund (pages 13 and 14, line 18) January 2019 MTD operating expenses of \$3,127,344 is \$6,703,710 (or 68.2%) less than budgeted and \$6,588,919 (or 67.8%) less than January 2018 MTD. January 2019 YTD operating expenses of \$3,127,344 is \$6,703,710 (or 68.2%) less than budgeted and \$6,588,919 (or 67.8%) less than January 2018 YTD.

Drainage System Fund (pages 19 and 20, line 18) January 2019 MTD operating expenses of \$2,268,806 is \$4,483,193 (or 66.4%) less than budgeted and \$5,427,716 (or 70.5%) less than January 2018 MTD. January 2019 YTD operating expenses of \$2,268,806 is \$4,483,193 (or 66.4%) less than budgeted and \$5,427,716 (or 70.5%) less than January 2018 YTD.

Total System Funds (pages 1 and 2, line 18) January 2019 MTD operating expenses of \$8,097,107 is \$17,039,214 (or 67.8%) less than budgeted and \$15,279,153 (or 65.4%) less than January 2018 MTD. January 2019 YTD operating expenses of \$8,097,107 is \$17,039,214 (or 67.8%) less than budgeted and \$15,279,153 (or 65.4%) less than January 2018 YTD.



SEWERAGE AND WATER BOARD OF NEW ORLEANS

Net Non-Operating Revenues:

Water System Fund (pages 7 and 8, line 28) January 2019 MTD non-operating revenues of \$143,147 is \$74,020 (or 34.1%) less than budgeted and \$95,561 (or 200.8%) more than January 2018 MTD. January 2019 YTD net non-operating revenues of \$143,147 is \$74,020 (or 34.1%) less than budgeted and \$95,561 (or 200.8%) more than January 2018 YTD.

Sewer System Fund (pages 13 and 14, line 28) January 2019 MTD non-operating revenues of \$196,361 is \$34,813 (or 15.1%) less than budgeted and \$174,329 (or 791.2%) more than January 2018 MTD. January 2019 YTD net non-operating revenues of \$196,361 is \$34,813 (or 15.1%) less than budgeted and \$174,329 (or 791.2%) more than January 2018 YTD.

Drainage System Fund (pages 19 and 20, line 28) January 2019 MTD non-operating revenues of \$124,144 is \$4,982,405 (or 97.6%) less than budgeted and \$118,705 (or 2182.5%) more than January 2018 MTD. January 2019 YTD net non-operating revenues of \$124,144 is \$4,982,405 (or 97.6%) less than budgeted and \$118,705 (or 2182.5%) more than January 2018 YTD.

Total System Funds (pages 1 and 2, line 28) January 2019 MTD non-operating revenues of \$463,652 is \$5,091,238 (or 91.7%) less than budgeted and \$388,595 (or 517.7%) more than January 2018 MTD. January 2019 YTD net non-operating revenues of \$463,652 is \$5,091,238 (or 91.7%) less than budgeted and \$388,595 (or 517.7%) more than January 2018 YTD.

Income Before Contributions in Aid of Construction:

Water System Fund (pages 7 and 8, line 29) January 2019 MTD income before contributions of \$5,677,600 is \$5,267,230 (or 1283.5%) more than budgeted and \$5,386,494 (or 1850.4%) more than January 2018 MTD. January 2019 YTD income before capital contributions of \$5,677,600 is \$5,267,230 (or 1283.5%) more than budgeted and \$5,386,494 (or 1850.4%) more than January 2018 YTD.

Sewer System Fund (pages 13 and 14, line 29) January 2019 MTD income before contributions of \$7,929,824 is \$6,838,634 (or 626.7%) more than budgeted and \$10,031,304 (or 477.3%) more than January 2018 MTD. January 2019 YTD income before capital contributions of \$7,929,824 is \$6,838,634 (or 626.7%) more than budgeted and \$10,031,304 (or 477.3%) more than January 2018 YTD.

Drainage System Fund (pages 19 and 20, line 29) January 2019 MTD income before contributions of \$117,136 is \$1,762,586 (or 107.1%) more than budgeted and \$7,857,502 (or 101.5%) more than January 2018 MTD. January 2019 YTD income before capital contributions of \$117,136 is \$1,762,586 (or 107.1%) more than budgeted and \$7,857,502 (or 101.5%) more than January 2018 YTD.

Total System Funds (pages 1 and 2, line 29) January 2019 MTD income before contributions of \$13,724,559 is \$13,868,450 (or 9638.2%) more than budgeted and \$23,275,300 (or 243.7%) more than January 2018 MTD. January 2019 YTD income before capital contributions of \$13,724,559 is \$13,868,450 (or 9638.2%) more than budgeted and \$23,275,300 (or 243.7%) more than January 2018 YTD.



SEWERAGE AND WATER BOARD OF NEW ORLEANS

The balances of funds from the Series 2014 bond proceeds available for capital construction as of January 31, 2019 are:

	Water	Sewer	Total
Original Balance	\$ 144,376.18	-	\$ 144,376.18
Less Disbursements	-	-	-
Plus Reimbursements	-	-	-
Plus Income	122.62	-	122.62
Ending Balance	\$ 144,498.80	-	\$ 144,498.80

The balances of funds from the Series 2015 bond proceeds available for capital construction as of January 31, 2019 are:

	Water	Sewer	Total
Original Balance	\$ 4,381,786.17	\$ 5,930.69	\$ 4,387,716.86
Less Disbursements	(4,000,000.00)	-	(4,000,000.00)
Plus Reimbursements	-	-	-
Plus Income	1,611.93	4.04	1,615.97
Ending Balance	\$ 383,398.10	\$ 5,934.73	\$ 389,332.83

Total	\$527,896.90	\$5,934.73	\$533,831.63
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The days-of-cash at January 31, 2019 were 118 days for the water system, 93 days for the sewer system, 0 days for the drainage system and 79 days for the total systems. Combined the total system results were below the minimum policy target of 180 days. Individually, water, sewer, and drainage system did not meet its policy target of 180 days.

Debt service coverage is not included in the preliminary January 2019 financials as we are still calculating accrued revenues and expenses.

Certification. In connection with the accompanying monthly financial report of the Sewerage and Water Board of New Orleans for the period ended January 31, 2019, 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.

Rosita Thomas
Finance Administrator

SEWERAGE AND WATER BOARD OF NEW ORLEANS
ALL SYSTEM FUNDS
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
January 2019 Prelim

	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	8,045,897	6,081,067	1,964,830	32.3%	8,045,897	6,081,067	1,964,830	32.3%
2 Sewerage service charges and del fees	10,791,071	7,493,338	3,297,733	44.0%	10,791,071	7,493,338	3,297,733	44.0%
3 Plumbing inspection and license fees	41,400	56,854	(15,454)	-27.2%	41,400	56,854	(15,454)	-27.2%
4 Other revenues	2,479,646	119,203	2,360,443	1980.2%	2,479,646	119,203	2,360,443	1980.2%
5 Total operating revenues	21,358,014	13,750,462	7,607,552	55.3%	21,358,014	13,750,462	7,607,552	55.3%
Operating Expenses:								
6 Power and pumping	(182,136)	4,187,404	(4,369,540)	-104.3%	(182,136)	4,187,404	(4,369,540)	-104.3%
7 Treatment	11,631	3,360,722	(3,349,091)	-99.7%	11,631	3,360,722	(3,349,091)	-99.7%
8 Transmission and distribution	698,610	2,340,061	(1,641,451)	-70.1%	698,610	2,340,061	(1,641,451)	-70.1%
9 Customer accounts	(133,455)	324,383	(457,838)	-141.1%	(133,455)	324,383	(457,838)	-141.1%
10 Customer service	(121,403)	261,144	(382,547)	-146.5%	(121,403)	261,144	(382,547)	-146.5%
11 Administration and general	1,402,021	3,318,284	(1,916,263)	-57.7%	1,402,021	3,318,284	(1,916,263)	-57.7%
12 Payroll related	1,063,969	3,212,499	(2,148,530)	-66.9%	1,063,969	3,212,499	(2,148,530)	-66.9%
13 Maintenance of general plant	105,296	1,968,256	(1,862,960)	-94.7%	105,296	1,968,256	(1,862,960)	-94.7%
14 Depreciation	4,954,113	3,936,070	1,018,043	25.9%	4,954,113	3,936,070	1,018,043	25.9%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	276,460	184,570	91,890	49.8%	276,460	184,570	91,890	49.8%
17 Provision for claims	22,002	282,866	(260,864)	-92.2%	22,002	282,866	(260,864)	-92.2%
18 Total operating expenses	8,097,107	23,376,259	(15,279,153)	-65.4%	8,097,107	23,376,259	(15,279,153)	-65.4%
19 Operating income (loss)	13,260,908	(9,625,797)	22,886,705	-237.8%	13,260,908	(9,625,797)	22,886,705	-237.8%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	39,720	-	39,720	0.0%	39,720	-	39,720	0.0%
22 Six-mill tax	33,742	-	33,742	0.0%	33,742	-	33,742	0.0%
23 Nine-mill tax	50,578	-	50,578	0.0%	50,578	-	50,578	0.0%
24 Interest income	339,650	74,995	264,654	352.9%	339,650	74,995	264,654	352.9%
25 Other Income	-	-	-	0.0%	-	-	-	0.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	(38)	62	(100)	-161.4%	(38)	62	(100)	-161.4%
28 Total non-operating revenues	463,652	75,057	388,595	517.7%	463,652	75,057	388,595	517.7%
29 Income before capital contributions	13,724,559	(9,550,740)	23,275,300	-243.7%	13,724,559	(9,550,740)	23,275,300	-243.7%
30 Capital contributions	805,443	251,731	553,712	220.0%	805,443	251,731	553,712	220.0%
31 Change in net position	14,530,002	(9,299,009)	23,829,011	-256.3%	14,530,002	(9,299,009)	23,829,011	-256.3%
32 Net position, beginning of year	2,263,264,196	2,263,264,196	-	0.0%	2,263,264,196	2,263,264,196	-	0.0%
33 Net position, end of year	2,277,794,195	2,253,965,187	23,829,008	1.1%	2,277,794,195	2,253,965,187	23,829,008	1.1%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
ALL SYSTEM FUNDS
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
January 2019 Prelim

	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	8,045,897	8,699,383	(653,486)	-7.5%	8,045,897	8,699,383	(653,486)	-7.5%
2 Sewerage service charges and del fees	10,791,071	10,647,154	143,917	1.4%	10,791,071	10,647,154	143,917	1.4%
3 Plumbing inspection and license fees	41,400	50,380	(8,980)	-17.8%	41,400	50,380	(8,980)	-17.8%
4 Other revenues	2,479,646	40,623	2,439,023	6004.0%	2,479,646	40,623	2,439,023	6004.0%
5 Total operating revenues	21,358,014	19,437,540	1,920,474	9.9%	21,358,014	19,437,540	1,920,474	9.9%
Operating Expenses:								
6 Power and pumping	(182,136)	2,973,019	(3,155,155)	-106.1%	(182,136)	2,973,019	(3,155,155)	-106.1%
7 Treatment	11,631	2,079,897	(2,068,266)	-99.4%	11,631	2,079,897	(2,068,266)	-99.4%
8 Transmission and distribution	698,610	3,691,912	(2,993,302)	-81.1%	698,610	3,691,912	(2,993,302)	-81.1%
9 Customer accounts	(133,455)	513,844	(647,300)	-126.0%	(133,455)	513,844	(647,300)	-126.0%
10 Customer service	(121,403)	425,314	(546,717)	-128.5%	(121,403)	425,314	(546,717)	-128.5%
11 Administration and general	1,402,021	4,607,670	(3,205,649)	-69.6%	1,402,021	4,607,670	(3,205,649)	-69.6%
12 Payroll related	1,063,969	3,088,724	(2,024,755)	-65.6%	1,063,969	3,088,724	(2,024,755)	-65.6%
13 Maintenance of general plant	105,296	2,439,844	(2,334,548)	-95.7%	105,296	2,439,844	(2,334,548)	-95.7%
14 Depreciation	4,954,113	4,988,917	(34,804)	-0.7%	4,954,113	4,988,917	(34,804)	-0.7%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	276,460	-	276,460	0.0%	276,460	-	276,460	0.0%
17 Provision for claims	22,002	327,181	(305,179)	-93.3%	22,002	327,181	(305,179)	-93.3%
18 Total operating expenses	8,097,107	25,136,321	(17,039,214)	-67.8%	8,097,107	25,136,321	(17,039,214)	-67.8%
19 Operating income (loss)	13,260,908	(5,698,780)	18,959,688	-332.7%	13,260,908	(5,698,780)	18,959,688	-332.7%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	39,720	1,459,579	(1,419,859)	-97.3%	39,720	1,459,579	(1,419,859)	-97.3%
22 Six-mill tax	33,742	1,382,106	(1,348,364)	-97.6%	33,742	1,382,106	(1,348,364)	-97.6%
23 Nine-mill tax	50,578	2,187,819	(2,137,241)	-97.7%	50,578	2,187,819	(2,137,241)	-97.7%
24 Interest income	339,650	-	339,650	0.0%	339,650	-	339,650	0.0%
25 Other Income	-	148,462	(148,462)	-100.0%	-	148,462	(148,462)	-100.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	(38)	376,923	(376,961)	-100.0%	(38)	376,923	(376,961)	-100.0%
28 Total non-operating revenues	463,652	5,554,889	(5,091,238)	-91.7%	463,652	5,554,889	(5,091,238)	-91.7%
29 Income before capital contributions	13,724,559	(143,891)	13,868,450	-9638.2%	13,724,559	(143,891)	13,868,450	-9638.2%
30 Capital contributions	805,443	-	805,443	0.0%	805,443	-	805,443	0.0%
31 Change in net position	14,530,002	(143,891)	14,673,893	-10197.9%	14,530,002	(143,891)	14,673,893	-10197.9%
32 Net position, beginning of year					2,263,264,196	2,263,264,196	-	0.0%
33 Net position, end of year					2,277,794,198	2,263,120,305	14,673,893	0.6%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
January 2019 Prelim

	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	8,045,897	6,081,067	1,964,830	32.3%	8,045,897	6,081,067	1,964,830	32.3%
2 Sewerage service charges and del fees	-	-	-	0.0%	-	-	-	0.0%
3 Plumbing inspection and license fees	20,700	28,452	(7,752)	-27.2%	20,700	28,452	(7,752)	-27.2%
4 Other revenues ¹	168,812	97,475	71,338	73.2%	168,812	97,475	71,338	73.2%
5 Total operating revenues	8,235,409	6,206,994	2,028,416	32.7%	8,235,409	6,206,994	2,028,416	32.7%
Operating Expenses:								
6 Power and pumping	(82,409)	226,609	(309,018)	-136.4%	(82,409)	226,609	(309,018)	-136.4%
7 Treatment	57,181	646,604	(589,423)	-91.2%	57,181	646,604	(589,423)	-91.2%
8 Transmission and distribution	690,719	1,157,435	(466,716)	-40.3%	690,719	1,157,435	(466,716)	-40.3%
9 Customer accounts	(82,172)	161,391	(243,563)	-150.9%	(82,172)	161,391	(243,563)	-150.9%
10 Customer service	(76,146)	128,614	(204,760)	-159.2%	(76,146)	128,614	(204,760)	-159.2%
11 Administration and general	583,283	1,175,400	(592,117)	-50.4%	583,283	1,175,400	(592,117)	-50.4%
12 Payroll related	418,031	1,171,483	(753,452)	-64.3%	418,031	1,171,483	(753,452)	-64.3%
13 Maintenance of general plant	11,096	1,089,363	(1,078,267)	-99.0%	11,096	1,089,363	(1,078,267)	-99.0%
14 Depreciation	1,018,043	-	1,018,043	0.0%	1,018,043	-	1,018,043	0.0%
15 Amortization	0	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	154,529	95,834	58,695	61.2%	154,529	95,834	58,695	61.2%
17 Provision for claims	8,801	110,741	(101,940)	-92.1%	8,801	110,741	(101,940)	-92.1%
18 Total operating expenses	2,700,956	5,963,474	(3,262,517)	-54.7%	2,700,956	5,963,474	(3,262,517)	-54.7%
19 Operating income (loss)	5,534,453	243,520	5,290,933	2172.7%	5,534,453	243,520	5,290,933	2172.7%
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	143,185	47,569	95,616	201.0%	143,185	47,569	95,616	201.0%
25 Other Income	-	-	-	0.0%	-	-	-	0.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	(38)	17	(55)	-323.5%	(38)	17	(55)	-323.5%
28 Total non-operating revenues	143,147	47,586	95,561	200.8%	143,147	47,586	95,561	200.8%
29 Income before capital contributions	5,677,600	291,106	5,386,494	1850.4%	5,677,600	291,106	5,386,494	1850.4%
30 Capital contributions	133,849	221,390	(87,541)	-39.5%	133,849	221,390	(87,541)	-39.5%
31 Change in net position	5,811,449	512,496	5,298,953	1034.0%	5,811,449	512,496	5,298,953	1034.0%
32 Net position, beginning of year					350,193,318	350,193,318	-	0.0%
33 Net position, end of year					356,004,767	350,705,814	5,298,953	1.5%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
WATER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
January 2019 Prelim

	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	8,045,897	8,699,383	(653,486)	-7.5%	8,045,897	8,699,383	(653,486)	-7.5%
2 Sewerage service charges and del fees	-	-	-	0.0%	-	-	-	0.0%
3 Plumbing inspection and license fees	20,700	26,557	(5,857)	-22.1%	20,700	26,557	(5,857)	-22.1%
4 Other revenues	168,812	20,530	148,282	722.3%	168,812	20,530	148,282	722.3%
5 Total operating revenues	8,235,409	8,746,471	(511,061)	-5.8%	8,235,409	8,746,471	(511,061)	-5.8%
Operating Expenses:								
6 Power and pumping	(82,409)	203,569	(285,978)	-140.5%	(82,409)	203,569	(285,978)	-140.5%
7 Treatment	57,181	864,328	(807,147)	-93.4%	57,181	864,328	(807,147)	-93.4%
8 Transmission and distribution	690,719	1,712,244	(1,021,525)	-59.7%	690,719	1,712,244	(1,021,525)	-59.7%
9 Customer accounts	(82,172)	255,719	(337,891)	-132.1%	(82,172)	255,719	(337,891)	-132.1%
10 Customer service	(76,146)	209,805	(285,951)	-136.3%	(76,146)	209,805	(285,951)	-136.3%
11 Administration and general	583,283	1,555,394	(972,111)	-62.5%	583,283	1,555,394	(972,111)	-62.5%
12 Payroll related	418,031	1,199,897	(781,865)	-65.2%	418,031	1,199,897	(781,865)	-65.2%
13 Maintenance of general plant	11,096	1,102,523	(1,091,427)	-99.0%	11,096	1,102,523	(1,091,427)	-99.0%
14 Depreciation	1,018,043	1,329,750	(311,707)	-23.4%	1,018,043	1,329,750	(311,707)	-23.4%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	154,529	-	154,529	0.0%	154,529	-	154,529	0.0%
17 Provision for claims	8,801	120,039	(111,238)	-92.7%	8,801	120,039	(111,238)	-92.7%
18 Total operating expenses	2,700,956	8,553,268	(5,852,311)	-68.4%	2,700,956	8,553,268	(5,852,311)	-68.4%
19 Operating income (loss)	5,534,453	193,203	5,341,250	2764.6%	5,534,453	193,203	5,341,250	2764.6%
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	143,185	-	143,185	0.0%	143,185	-	143,185	0.0%
25 Other Income	-	104,090	(104,090)	-100.0%	-	104,090	(104,090)	-100.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	(38)	113,077	(113,115)	-100.0%	(38)	113,077	(113,115)	-100.0%
28 Total non-operating revenues	143,147	217,167	(74,020)	-34.1%	143,147	217,167	(74,020)	-34.1%
29 Income before capital contributions	5,677,600	410,369	5,267,230	1283.5%	5,677,600	410,369	5,267,230	1283.5%
30 Capital contributions	133,849	-	133,849	0.0%	133,849	-	133,849	0.0%
31 Change in net position	5,811,449	410,369	5,401,079	1316.2%	5,811,449	410,369	5,401,079	1316.2%
32 Net position, beginning of year					350,193,318	350,193,318	-	0.0%
33 Net position, end of year					356,004,767	350,603,687	5,401,079	1.5%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
SEWER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
January 2019 Prelim

	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	10,791,071	7,493,338	3,297,733	44.0%	10,791,071	7,493,338	3,297,733	11610.9%
3 Plumbing inspection and license fees	20,700	28,402	(7,702)	-27.1%	20,700	28,402	(7,702)	-10.8%
4 Other revenues	49,036	71,012	(21,976)	-30.9%	49,036	71,012	(21,976)	-0.3%
5 Total operating revenues	10,860,807	7,592,752	3,268,055	43.0%	10,860,807	7,592,752	3,268,055	43.0%
Operating Expenses:								
6 Power and pumping	(51,075)	509,443	(560,518)	-110.0%	(51,075)	509,443	(560,518)	-110.0%
7 Treatment	(45,550)	2,714,118	(2,759,668)	-101.7%	(45,550)	2,714,118	(2,759,668)	-101.7%
8 Transmission and distribution	23,568	894,826	(871,259)	-97.4%	23,568	894,826	(871,259)	-97.4%
9 Customer accounts	(51,283)	161,390	(212,674)	-131.8%	(51,283)	161,390	(212,674)	-131.8%
10 Customer service	(45,257)	128,613	(173,871)	-135.2%	(45,257)	128,613	(173,871)	-135.2%
11 Administration and general	658,525	1,442,512	(783,988)	-54.3%	658,525	1,442,512	(783,988)	-54.3%
12 Payroll related	448,920	1,172,346	(723,426)	-61.7%	448,920	1,172,346	(723,426)	-61.7%
13 Maintenance of general plant	90,448	525,318	(434,871)	-82.8%	90,448	525,318	(434,871)	-82.8%
14 Depreciation	1,968,320	1,968,320	(0)	0.0%	1,968,320	1,968,320	(0)	0.0%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	121,931	88,736	33,195	37.4%	121,931	88,736	33,195	37.4%
17 Provision for claims	8,801	110,641	(101,840)	-92.0%	8,801	110,641	(101,840)	-92.0%
18 Total operating expenses	3,127,344	9,716,264	(6,588,919)	-67.8%	3,127,344	9,716,264	(6,588,919)	-67.8%
19 Operating income (loss)	7,733,463	(2,123,512)	9,856,975	-464.2%	7,733,463	(2,123,512)	9,856,975	-464.2%
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	196,361	21,987	174,374	793.1%	196,361	21,987	174,374	793.1%
25 Other Income	-	-	-	0.0%	-	-	-	0.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	-	45	(45)	-100.0%	-	45	(45)	-100.0%
28 Total non-operating revenues	196,361	22,032	174,329	791.2%	196,361	22,032	174,329	791.2%
29 Income before capital contributions	7,929,824	(2,101,480)	10,031,304	-477.3%	7,929,824	(2,101,480)	10,031,304	-477.3%
30 Capital contributions	671,594	30,341	641,253	2113.5%	671,594	30,341	641,253	2113.5%
31 Change in net position	8,601,418	(2,071,138)	10,672,556	-515.3%	8,601,418	(2,071,138)	10,672,556	-515.3%
32 Net position, beginning of year	-	-	-	-	806,855,738	806,855,738	-	0.0%
33 Net position, end of year	-	-	-	-	815,457,156	804,784,600	10,672,556	1.3%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
SEWER SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
January 2019 Prelim

	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	10,791,071	10,647,154	143,917	1.4%	10,791,071	10,647,154	143,917	1.4%
3 Plumbing inspection and license fees	20,700	23,823	(3,123)	-13.1%	20,700	23,823	(3,123)	-13.1%
4 Other revenues	49,036	20,093	28,943	144.0%	49,036	20,093	28,943	144.0%
5 Total operating revenues	10,860,807	10,691,070	169,737	1.6%	10,860,807	10,691,070	169,737	1.6%
Operating Expenses:								
6 Power and pumping	(51,075)	348,534	(399,609)	-114.7%	(51,075)	348,534	(399,609)	-114.7%
7 Treatment	(45,550)	1,215,569	(1,261,119)	-103.7%	(45,550)	1,215,569	(1,261,119)	-103.7%
8 Transmission and distribution	23,568	1,623,078	(1,599,510)	-98.5%	23,568	1,623,078	(1,599,510)	-98.5%
9 Customer accounts	(51,283)	255,719	(307,002)	-120.1%	(51,283)	255,719	(307,002)	-120.1%
10 Customer service	(45,257)	209,805	(255,062)	-121.6%	(45,257)	209,805	(255,062)	-121.6%
11 Administration and general	658,525	2,062,571	(1,404,047)	-68.1%	658,525	2,062,571	(1,404,047)	-68.1%
12 Payroll related	448,920	1,276,295	(827,375)	-64.8%	448,920	1,276,295	(827,375)	-64.8%
13 Maintenance of general plant	90,448	856,112	(765,664)	-89.4%	90,448	856,112	(765,664)	-89.4%
14 Depreciation	1,968,320	1,863,333	104,987	5.6%	1,968,320	1,863,333	104,987	5.6%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	121,931	-	121,931	0.0%	121,931	-	121,931	0.0%
17 Provision for claims	8,801	120,039	(111,238)	-92.7%	8,801	120,039	(111,238)	-92.7%
18 Total operating expenses	3,127,344	9,831,054	(6,703,710)	-68.2%	3,127,344	9,831,054	(6,703,710)	-68.2%
19 Operating income (loss)	7,733,463	860,016	6,873,447	799.2%	7,733,463	860,016	6,873,447	799.2%
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	196,361	-	196,361	0.0%	196,361	-	196,361	0.0%
25 Other Income	-	42,712	(42,712)	-100.0%	-	42,712	(42,712)	-100.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	-	188,462	(188,462)	-100.0%	-	188,462	(188,462)	-100.0%
28 Total non-operating revenues	196,361	231,174	(34,813)	-15.1%	196,361	231,174	(34,813)	-15.1%
29 Income before capital contributions	7,929,824	1,091,189	6,838,634	626.7%	7,929,824	1,091,189	6,838,634	626.7%
30 Capital contributions	671,594	-	671,594	0.0%	671,594	-	671,594	0.0%
31 Change in net position	8,601,418	1,091,189	7,510,228	688.3%	8,601,418	1,091,189	7,510,228	688.3%
32 Net position, beginning of year	-	-	-	-	806,855,738	806,855,738	-	0.0%
33 Net position, end of year	-	-	-	-	815,457,156	807,946,927	7,510,228	0.9%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
DRAINAGE SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH PRIOR YEAR COMPARISONS
January 2019 Prelim

	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	-	-	-	0.0%	-	-	-	0.0%
3 Plumbing inspection and license fees	-	-	-	0.0%	-	-	-	0.0%
4 Other revenues	2,261,798	(49,283)	2,311,081	-4689.4%	2,261,798	(49,283)	2,311,081	-4689.4%
5 Total operating revenues	2,261,798	(49,283)	2,311,081	-4689.4%	2,261,798	(49,283)	2,311,081	-4689.4%
Operating Expenses:								
6 Power and pumping	(48,652)	3,451,352	(3,500,004)	-101.4%	(48,652)	3,451,352	(3,500,004)	-101.4%
7 Treatment	-	-	-	0.0%	-	-	-	0.0%
8 Transmission and distribution	(15,677)	287,800	(303,476)	-105.4%	(15,677)	287,800	(303,476)	-105.4%
9 Customer accounts	-	1,601	(1,601)	-100.0%	-	1,601	(1,601)	-100.0%
10 Customer service	-	3,917	(3,917)	-100.0%	-	3,917	(3,917)	-100.0%
11 Administration and general	160,213	700,372	(540,158)	-77.1%	160,213	700,372	(540,158)	-77.1%
12 Payroll related	197,018	868,670	(671,652)	-77.3%	197,018	868,670	(671,652)	-77.3%
13 Maintenance of general plant	3,752	353,575	(349,823)	-98.9%	3,752	353,575	(349,823)	-98.9%
14 Depreciation	1,967,750	1,967,750	(0)	0.0%	1,967,750	1,967,750	(0)	0.0%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	-	-	-	0.0%	-	-	-	0.0%
17 Provision for claims	4,400	61,484	(57,084)	-92.8%	4,400	61,484	(57,084)	-92.8%
18 Total operating expenses	2,268,806	7,696,522	(5,427,716)	-70.5%	2,268,806	7,696,522	(5,427,716)	-70.5%
19 Operating income (loss)	(7,008)	(7,745,805)	7,738,797	-99.9%	(7,008)	(7,745,805)	7,738,797	-99.9%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	39,720	-	39,720	0.0%	39,720	-	39,720	0.0%
22 Six-mill tax	33,742	-	33,742	0.0%	33,742	-	33,742	0.0%
23 Nine-mill tax	50,578	-	50,578	0.0%	50,578	-	50,578	0.0%
24 Interest income	104	5,439	(5,335)	-98.1%	104	5,439	(5,335)	-98.1%
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	124,144	5,439	118,705	2182.5%	124,144	5,439	118,705	2182.5%
29 Income before capital contributions	117,136	(7,740,366)	7,857,502	-101.5%	117,136	(7,740,366)	7,857,502	-101.5%
30 Capital contributions	-	-	-	0.0%	-	-	-	0.0%
31 Change in net position	117,136	(7,740,366)	7,857,502	-101.5%	117,136	(7,740,366)	7,857,502	-101.5%
32 Net position, beginning of year	-	-	-	-	1,106,215,140	1,106,215,140	-	0.0%
33 Net position, end of year	-	-	-	-	1,106,332,276	1,098,474,774	7,857,502	0.7%

SEWERAGE AND WATER BOARD OF NEW ORLEANS
DRAINAGE SYSTEM FUND
STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN NET POSITION
WITH BUDGET COMPARISONS
January 2019 Prelim

	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	2,261,798	-	2,261,798	100.0%	2,261,798	-	2,261,798	100.0%
5 Total operating revenues	2,261,798	-	2,261,798	100.0%	2,261,798	-	2,261,798	100.0%
Operating Expenses:								
6 Power and pumping	(48,652)	2,420,916	(2,469,568)	-102.0%	(48,652)	2,420,916	(2,469,568)	-102.0%
7 Treatment	-	-	-	0.0%	-	-	-	0.0%
8 Transmission and distribution	(15,677)	356,590	(372,266)	-104.4%	(15,677)	356,590	(372,266)	-104.4%
9 Customer accounts	-	2,407	(2,407)	-100.0%	-	2,407	(2,407)	-100.0%
10 Customer service	-	5,704	(5,704)	-100.0%	-	5,704	(5,704)	-100.0%
11 Administration and general	160,213	989,704	(829,491)	-83.8%	160,213	989,704	(829,491)	-83.8%
12 Payroll related	197,018	612,533	(415,514)	-67.8%	197,018	612,533	(415,514)	-67.8%
13 Maintenance of general plant	3,752	481,209	(477,456)	-99.2%	3,752	481,209	(477,456)	-99.2%
14 Depreciation	1,967,750	1,795,833	171,917	9.6%	1,967,750	1,795,833	171,917	9.6%
15 Amortization	-	-	-	0.0%	-	-	-	0.0%
16 Provision for doubtful accounts	-	-	-	0.0%	-	-	-	0.0%
17 Provision for claims	4,400	87,103	(82,703)	-94.9%	4,400	87,103	(82,703)	-94.9%
18 Total operating expenses	2,268,806	6,751,999	(4,483,193)	-66.4%	2,268,806	6,751,999	(4,483,193)	-66.4%
19 Operating income (loss)	(7,008)	(6,751,999)	6,744,991	-99.9%	(7,008)	(6,751,999)	6,744,991	-99.9%
Non-operating revenues (expense):								
20 Two-mill tax	-	-	-	0.0%	-	-	-	0.0%
21 Three-mill tax	39,720	1,459,579	(1,419,859)	-97.3%	39,720	1,459,579	(1,419,859)	-97.3%
22 Six-mill tax	33,742	1,382,106	(1,348,364)	-97.6%	33,742	1,382,106	(1,348,364)	-97.6%
23 Nine-mill tax	50,578	2,187,819	(2,137,241)	-97.7%	50,578	2,187,819	(2,137,241)	-97.7%
24 Interest income	104	-	104	0.0%	104	-	104	0.0%
25 Other Income	-	1,660	(1,660)	-100.0%	-	1,660	(1,660)	-100.0%
26 Interest expense	-	-	-	0.0%	-	-	-	0.0%
27 Operating and maintenance grants	-	75,385	(75,385)	-100.0%	-	75,385	(75,385)	-100.0%
28 Total non-operating revenues	124,144	5,106,549	(4,982,405)	-97.6%	124,144	5,106,549	(4,982,405)	-97.6%
29 Income before capital contributions	117,136	(1,645,450)	1,762,586	-107.1%	117,136	(1,645,450)	1,762,586	-107.1%
30 Capital contributions	-	-	-	0.0%	-	-	-	0.0%
31 Change in net position	117,136	(1,645,450)	1,762,586	-107.1%	117,136	(1,645,450)	1,762,586	-107.1%
32 Net position, beginning of year	-	-	-	-	1,106,215,140	1,106,215,140	-	0.0%
33 Net position, end of year	-	-	-	-	1,106,332,276	1,104,569,690	1,762,586	0.2%

[illegible]

[illegible]

[illegible]

[illegible]

Sewerage and Water Board of New Orleans
Comparative Variance Indicators for Financial Results
Through January 2019

Statement of Revenues, Expenses, and Changes in Net Position with Prior Year Comparisons	Total	Water	Sewer	Drainage
Revenues	Green	Green	Green	Green
Operating Expenses	Green	Yellow	Green	Green
Non-Operating Revenues and Expenses	Green	Yellow	Green	Green
Income before Capital Contributions	Green	Green	Green	Green
Statement of Revenues, Expenses, and Changes in Net Position with Budget Comparisons	Total	Water	Sewer	Drainage
Revenues	Green	Green	Green	Green
Operating Expenses	Green	Green	Green	Green
Non-Operating Revenues and Expenses	Yellow	Yellow	Yellow	Yellow
Income before Capital Contributions	Green	Green	Green	Green
Statement of Net Position with Prior Year Comparisons	Total	Water	Sewer	Drainage
Plant, Property, and Equipment	Green	Green	Green	Green
Restricted Current Assets	Yellow	Yellow	Green	Yellow
Unrestricted Designated Current Assets	Yellow	Yellow	Yellow	Yellow
Unrestricted Undesignated Current Assets	Yellow	Green	Yellow	Yellow
Net Position	Green	Green	Green	Green
Long-Term Liabilities	Yellow	Yellow	Yellow	Yellow
Current Liabilities from Unrestricted Assets	Green	Green	Green	Green
Current Liabilities from Restricted Assets	Yellow	Yellow	Green	Green
Statement of Cash Flows with Prior Year Comparisons	Total	Water	Sewer	Drainage
Operating Activities	Yellow	Yellow	Yellow	Yellow
Non-Capital Financing Activities	Yellow	Yellow	Green	Yellow
Capital and Related Financing Activities	Yellow	Green	Green	Yellow
Investing Activities	Yellow	Yellow	Green	Yellow
Net Increase in Cash	Yellow	Green	Yellow	Yellow

Green = Favorable Variance

Yellow = Unfavorable Variance / No Action Recommended

Red = Unfavorable Variance / Action Recommended

Project Delivery Unit
February 2019 Closeout Snapshot

Hurricane Katrina	Project Count	FEMA Obligated	FEMA Revenue Received per LAPA	FEMA Obligation Balance	% Financially Complete	# of Projects Submitted for Closeout	OBLIGATED Value of Projects Submitted for Closeout	POTENTIAL Value of Projects Submitted to Closeout	# of Projects Officially Closed	OBLIGATED Value of Projects Officially Closed	% Submitted	% Closed	# of Projects Submitted but Not Officially Closed	OBLIGATED Value of Projects Submitted but Not Officially Closed
St. Joseph Headquarters	20	\$ 2,225,704.82	\$ 1,402,516.25	\$ 823,188.57	63%	19	\$ 1,125,107.83	\$ 2,097,797.83	14	\$ 462,456.56	95%	70%	5	\$ 662,651.27
Central Yard	42	\$ 27,887,826.99	\$ 26,091,746.53	\$ 1,796,080.46	94%	40	\$ 26,878,083.94	\$ 25,526,083.94	24	\$ 5,996,585.46	95%	57%	16	\$ 20,721,762.40
Wastewater Treatment Plant	128	\$ 89,554,400.50	\$ 76,414,023.78	\$ 13,140,376.72	85%	127	\$ 83,689,892.50	\$ 80,279,515.50	110	\$ 29,296,472.53	99%	86%	17	\$ 54,393,419.97
Carrollton Water Plant	55	\$ 75,901,500.33	\$ 64,804,890.93	\$ 11,096,609.40	85%	53	\$ 14,329,381.73	\$ 14,623,581.73	42	\$ 7,641,954.18	96%	76%	11	\$ 6,687,427.55
Distribution Network	27	\$ 196,982,528.55	\$ 160,803,340.41	\$ 36,179,188.14	82%	25	\$ 116,490,014.08	\$ 120,757,419.08	14	\$ 27,889,519.69	93%	52%	11	\$ 88,600,494.39
JIRR	2	\$ 268,448,968.15	\$ 3,369,867.79	\$ 265,079,100.36	1%	0	\$ -		0	\$ -	0%	0%	0	\$ -
Donors	53	\$ 68,387,383.70	\$ 54,362,188.51	\$ 14,025,195.19	79%	8	\$ 1,475,310.81	\$ 1,386,443.81	0	\$ -	15%	0%	8	\$ 1,475,310.81
Pump Stations	166	\$ 81,395,538.77	\$ 70,596,429.99	\$ 10,799,108.78	87%	156	\$ 69,320,507.50	\$ 71,383,756.50	134	\$ 42,732,866.34	94%	81%	22	\$ 26,587,641.16
Total	493	\$ 810,783,851.81	\$ 457,845,004.19	\$ 352,938,847.62	56%	428	\$ 313,308,298.39	\$ 316,054,598.39	338	\$ 114,019,854.76	87%	69%	90	\$ 199,128,707.55

Hurricane Gustav	Project Count	FEMA Obligated	FEMA Revenue Received per LAPA	FEMA Obligation Balance	% Financially Complete	# of Projects Submitted for Closeout	OBLIGATED Value of Projects Submitted for Closeout	POTENTIAL Value of Projects Submitted to Closeout	# of Projects Officially Closed	OBLIGATED Value of Projects Officially Closed	% Submitted	% Closed	# of Projects Submitted but Not Officially Closed	OBLIGATED Value of Projects Submitted but Not Officially Closed
Total	9	\$ 667,553.90	\$ 668,689.06	\$ (1,135.16)	100%	9	\$ 667,553.90	\$ 667,553.90	7	\$ 408,300.78	100%	78%	2	\$ 259,253.12

Hurricane Isaac	Project Count	FEMA Obligated	FEMA Revenue Received per LAPA	FEMA Obligation Balance	% Financially Complete	# of Projects Submitted for Closeout	OBLIGATED Value of Projects Submitted for Closeout	POTENTIAL Value of Projects Submitted to Closeout	# of Projects Officially Closed	OBLIGATED Value of Projects Officially Closed	% Submitted	% Closed	# of Projects Submitted but Not Officially Closed	OBLIGATED Value of Projects Submitted but Not Officially Closed
Total	8	\$ 1,554,775.01	\$ 955,019.44	\$ 599,755.57	61%	1	\$ 4,540.20	\$ 4,540.20	1	\$ 4,540.20	13%	13%	0	\$ -

Tropical Storm Nate	Project Count	FEMA Obligated	FEMA Revenue Received per LAPA	FEMA Obligation Balance	% Financially Complete	# of Projects Submitted for Closeout	OBLIGATED Value of Projects Submitted for Closeout	POTENTIAL Value of Projects Submitted to Closeout	# of Projects Officially Closed	OBLIGATED Value of Projects Officially Closed	% Submitted	% Closed	# of Projects Submitted but Not Officially Closed	OBLIGATED Value of Projects Submitted but Not Officially Closed
Total	2	\$ 439,728.39	\$ -	\$ 439,728.39	0%	0	\$ -	\$ -	0	\$ -	0%	0%	0	\$ -

Hurricane Katrina Hazard Mitigation	HMGP No.	Contract Count	FEMA Obligated	FEMA Revenue Received per LAPA	FEMA Obligation Balance	% Financially Complete	# of Contracts Completed	OBLIGATED Value of Projects Submitted for Closeout	POTENTIAL Value of Projects Submitted to Closeout	# of Projects Officially Closed	OBLIGATED Value of Projects Officially Closed	% Submitted	% Closed	# of Projects Submitted but Not Officially Closed	OBLIGATED Value of Projects Submitted but Not Officially Closed
Retrofit of Power House	39	10	\$ 109,204,525.00	\$ 96,315,321.74	\$ 12,889,203.26	88%	2	\$ -	\$ -	0	\$ -	0%	0%	0	\$ -
Flood Mitigation of 9 SPS	6	9	\$ 19,987,722.00	\$ 19,076,237.25	\$ 911,484.75	95%	8	\$ -	\$ -	0	\$ -	0%	0%	0	\$ -
Total		19	\$ 129,192,247.00	\$ 115,391,558.99	\$ 13,800,688.01	89%	10	\$ -	\$ -	0	\$ -	0%	0%	0	\$ -

Hurricane Ike Hazard Mitigation	HMGP No.	Project Count	FEMA Obligated	FEMA Revenue Received per LAPA	FEMA Obligation Balance	% Financially Complete	# of Contracts Completed	OBLIGATED Value of Projects Submitted for Closeout	POTENTIAL Value of Projects Submitted to Closeout	# of Projects Officially Closed	OBLIGATED Value of Projects Officially Closed	% Submitted	% Closed	# of Projects Submitted but Not Officially Closed	OBLIGATED Value of Projects Submitted but Not Officially Closed
Five Underpass Generators	2	1	\$ 988,658.00	\$ 839,129.23	\$ 149,528.77	85%	0	\$ -	\$ -	0	\$ -	0%	0%	0	\$ -
Total		1	\$ 988,658.00	\$ 839,129.23	\$ 149,528.77	85%	0	\$ -	\$ -	0	\$ -	0%	0%	0	\$ -

TOTALS	FEMA Obligated	FEMA Revenue Received	FEMA Obligation Balance
	\$ 943,626,814.11	\$ 575,699,400.91	\$ 367,927,413.20



SEWERAGE AND WATER BOARD

Inter-Office Memorandum

Date: March 1, 2019

To: Ghassan Korban, Executive Director

Thru: Irma Plummer, EDBP Director

(CP)

From: Lyria Hicks, EDBP Compliance Officer

PH

Re: EDBP Department Summary - February 2019

ANALYSES CONDUCTED BY EDBP

For the month of February 2019, the EDBP Department received one (1) Goods and Services contract to review.

1. FURNISHING LIMESTONE – REQ NO. YW19-0003

On Thursday, February 21, 2019 one (1) bid was received for subject contract. The bid total is as follows:
MST Enterprises, LLC \$198,000.00

Twenty percent (20%) SLDBE participation was requested on this contract.

MST Enterprises, LLC, the sole bidder, submitted Trucking Innovation, LLC (Eligible – Certified SLDBE) to provide hauling of materials. Signed correspondence from the DBE on their own letterhead reaffirming negotiated terms was provided.

Total Participation: \$39,600.00 – 20.0%

Based upon analysis of SLDBE participation, the Economically Disadvantaged Business Program recommends that the SLDBE participation submitted by MST Enterprises, LLC, be considered as responsive to meeting EDBP bid requirements.

CONSTRUCTION REVIEW COMMITTEE RECOMMENDATIONS

The Construction Review Committee convened Thursday, February 14, 2019, and made the following recommendation:

OPEN MARKET CONTRACTS

1. Contract #2140 Algiers Lock Forebay Waterline Replacement

Budget Amount:	\$1,078,800.00
Recommended Percentage Goal:	2.00%
Renewal Option(s):	None

STAFF CONTRACT REVIEW COMMITTEE RECOMMENDATIONS

The Staff Contract Review Committee convened on Thursday, February 14, 2019, and made the following recommendations:

OPEN MARKET CONTRACTS

1. Furnishing Hand Tools, Hardware Supplies, Paint & Paint Supplies to S&WBNO

Budget Amount: \$320,000.00
Recommended Percentage Goal: 30.00%
Renewal Option(s): One (1) year renewal option

2. Furnishing Polyelectrolyte to Carrollton & Algiers Water Plants

Budget Amount: \$700,000.00
Recommended Percentage Goal: 0%
Justification: This product is manufactured and subsequently shipped by the manufacturer in specially lined pneumatic trailers to our facilities in dedicated transport equipment.
Renewal Option(s): One (1) year renewal option

3. Furnishing Brass Water Service Fittings to the S&WBNO

Budget Amount: \$600,000.00
Recommended Percentage Goal: 5.00%
Renewal Option(s): One (1) year renewal option

4. Furnishing Rubber PVC Knee Boots & Hip Boots

Budget Amount: \$240,000.00
Recommended Percentage Goal: 30.00%
Renewal Option(s): One (1) year renewal option

5. Proposal for Consulting Services for Backflow Prevention Program

Budget Amount: \$600,000.00
Recommended Percentage Goal: 10.00%
Renewal Option(s): Four (4) – one (1) year renewal options

RENEWAL CONTRACTS

6. Furnishing Hot Mix Asphalt

Budget Amount: \$116,750.00
Renewal Option: First and Final Renewal Option
Amount Spent: \$39,544.40
Percentage Goal: 0%
Prime Contractor: Barriere Construction Co.

7. 2015 Report on Operations

Budget Amount:	\$116,000.00
Renewal Option:	Third of four Renewal Options to Prepare 2018 Report on Operations
Amount Spent:	\$40,700.00 (Paid in 2018) invoices pending payment in 2019
Percentage Goal:	35.00%
Goal Achieved:	0%
Justification:	DBE's portion of work is scheduled for payment in 2019 based on the structure of the contract.
Prime Contractor:	Black & Veatch Management Consulting

FINAL ACCEPTANCE CONTRACTS with DBE PARTICIPATION

For the month of February 2019 there were Final Acceptance contracts with DBE participation to report.

1. Contract #2126: 2017 Water Main Point Repair, Water Service Connection, Water Valve, and Fire Hydrant Point Replacement at Various Sites throughout Orleans Parish

DBE Goal:	36.00%
DBE Participation Achieved:	47.62%
Prime Contractor:	Wallace C. Drennan, Inc.
Closeout Date:	February 2019

The Economically Disadvantaged Business Program recommends that the participation on subject contract be approved for Final Acceptance.

2. Contract #30203: Restoration of Gravity Flow Sanitary Sewers by Point Repair of Sewer Mains at Various Sites throughout the City of New Orleans

DBE Goal:	36.00%
DBE Participation Achieved:	46.56%
Prime Contractor:	Wallace C. Drennan, Inc.
Closeout Date:	February 2019

The Economically Disadvantaged Business Program recommends that the participation on subject contract be approved for Final Acceptance.

SUMMARY OF STATUS OF DBE PARTICIPATION AT THE TIME OF CLOSEOUT OF EMERGENCY CONTRACTS RELATED TO AUGUST 2017 RAIN EVENT

All emergency projects related to the August 2017 rain event received an aspirational goal of 10% DBE participation. However, several emergency projects subject to close out at this time were not tracked for DBE participation because of certain parameters that were outside of EDBP review. For example, projects that required accelerated execution; projects that were below the LA Uniform Public Bid Law threshold of \$154,450; and/or projects that did not have DBEs certified in the subcontracted areas.

Those projects are:

- CO-17-0010 – Turbine 3; Siemens, Extreme emergency
- CO-17-0019 – Turbine 3; Siemens, Extreme emergency

- EE 17-0007 – Rental Generators – Station D, AARCO, Extreme emergency
- EE 17-0011 – 6.6kv 3000A Switch Gear Replacement, Point Eight Power, Extreme Emergency
- EE 17-0015 – EMD SCADA, AARCO, Below \$154,450 threshold
- ME 17-0020 – Temporary Generator Rental @ Underpass Pumping Stations; Industrial and Mechanical Contractors, No DBE Certified in category of scope of project
- ME 17-0023 – Accelerated Scope of Work Associated with Cont #6259; Industrial and Mechanical Contractors, Extreme emergency

Note: Final Acceptance of other emergency projects related to the August Rain Event were submitted for review in August 2018.

All emergency projects related to the Winter Storm Inga received an aspirational goal of 36% DBE participation. However, due to the extreme emergency situation for the projects, and the expedience needed to execute and complete the scopes of work, significant consideration is given to Good Faith Effort.

- Cont #2135 Emergency Repair Contract for Winter Freeze Event (Inga) – Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites Throughout Orleans Parish;
Boh Bros,
65.06% DBE Participation achieved
- Cont #2136 – Emergency Repair Contract for Winter Freeze Event (Inga) – Water Main Point Repair, Water Service Connection, Water Valve and Fire Hydrant Replacement at Various Sites Throughout Orleans Parish;
Grady Crawford,
18.72% DBE Participation achieved.

An anticipated DBE was unable to participate, and because of emergency condition the prime did not have time to fill the gap with another DBE company

Sewerage & Water Board of New Orleans Contracts with DBE Participation February 2019

There was one (1) new contract to report for the month of February 2019. See report as follows:

Sewerage & Water Board of New Orleans Open Market Bids with DBE Participation January 2019 - February 2019

Goods & Services Projects Awarded 2019

Contract No./Description	%DBE Goal	Contract \$	Prime	Sub(s)	% DBE Part (Prime)	\$ Sub Award	\$ Sub Paid	% DBE Sub Paid	Award date
YW19-0003 - Furnishing Limestone	20%	\$198,000.00	MST Enterprises,	Trucking Innovation, LLC		\$39,600.00	Contract not executed		2/21/2019
Total Goods & Services Projects		\$198,000.00			20%	\$39,600.00			

An aerial photograph of New Orleans, Louisiana, showing the Mississippi River and surrounding areas. The image is overlaid with a semi-transparent green filter. The text is centered over the city area.

Green Infrastructure in New Orleans

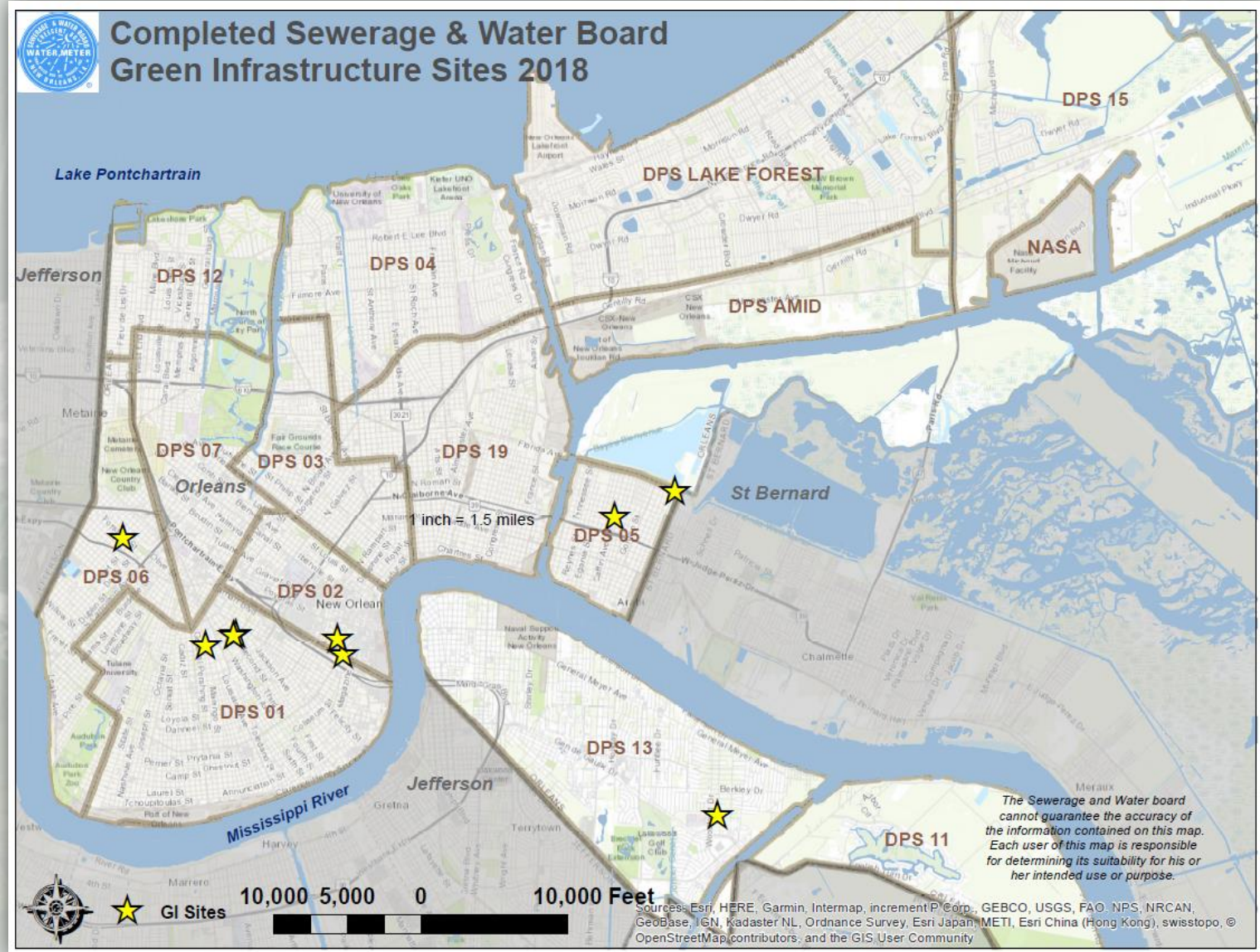
Sewerage and Water Board of New Orleans

Department of Environmental Affairs

October, 17 2018

3rd Modified Consent Decree Requirement

- SWB must dedicate \$2.5M towards green infrastructure from 2014 – 2018.
- All funds have been dedicated
- ~500K need to be awarded in 2019 to remain in compliance.



Central City Stormwater Lot- \$32,000.00



Captures street runoff and manages/filters water in simple vegetated bioretention cell

Designed Site Capacity:

- 26,180 Gallons

Lesson Learned:

Communication with DPW is a must.

Road construction has rendered this site less efficient than original design.



PARTNERS: Dana Brown & Associates, LPBF, Greenman Dan, Hike for KaTREEna, LUSC, Global Green, NPN, NORA

Lower 9th Ward Earth Lab- \$85,710.00

PARTNERS: Groundwork NOLA, Common Ground Relief, NET Charter High School, GAEA Engineering Consultants, Waggoner & Ball Architects, Deltares, Sustainable Ecosystems Restoration



- Rain garden, pervious pavement, Green Team school program, and professional outreach targeting the Lower 9th Ward, St. Roch, and Central City.
- Holds 9,000 gallons of water per rain event
- Serves as outdoor classroom



Hollygrove-Greenline

\$99,666.02

Designed to hold 47,470 gallons of stormwater

Lessons Learned

- Carrollton-Hollygrove CDC no longer in existence
- Maintenance is a problem if no community wants to claim ownership

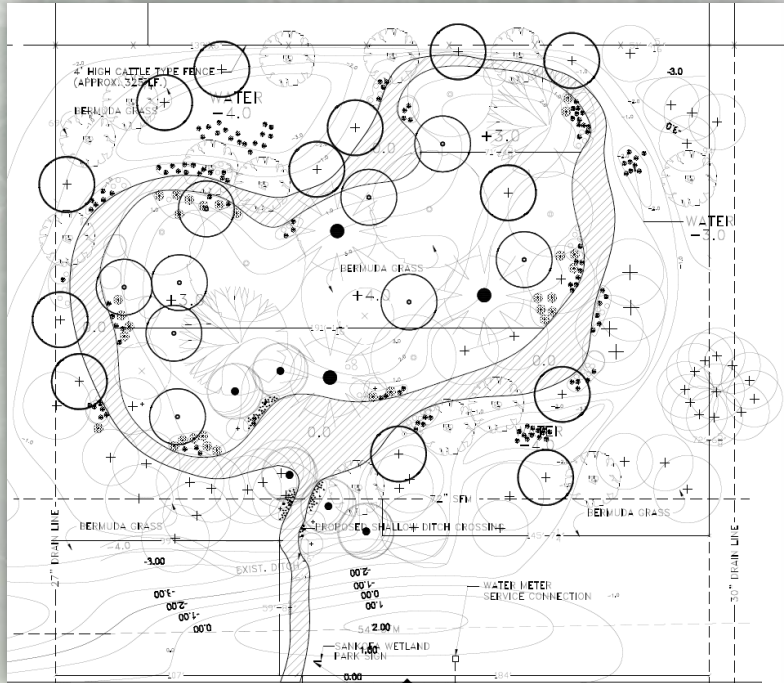


PARTNERS: Tulane City Center, Dana Brown & Associates, Carrollton-Hollygrove CDC, Engineers without Borders, Twin Shores Landscape & Construction Services.

Florida Ave Learning Trail- \$100,000.00

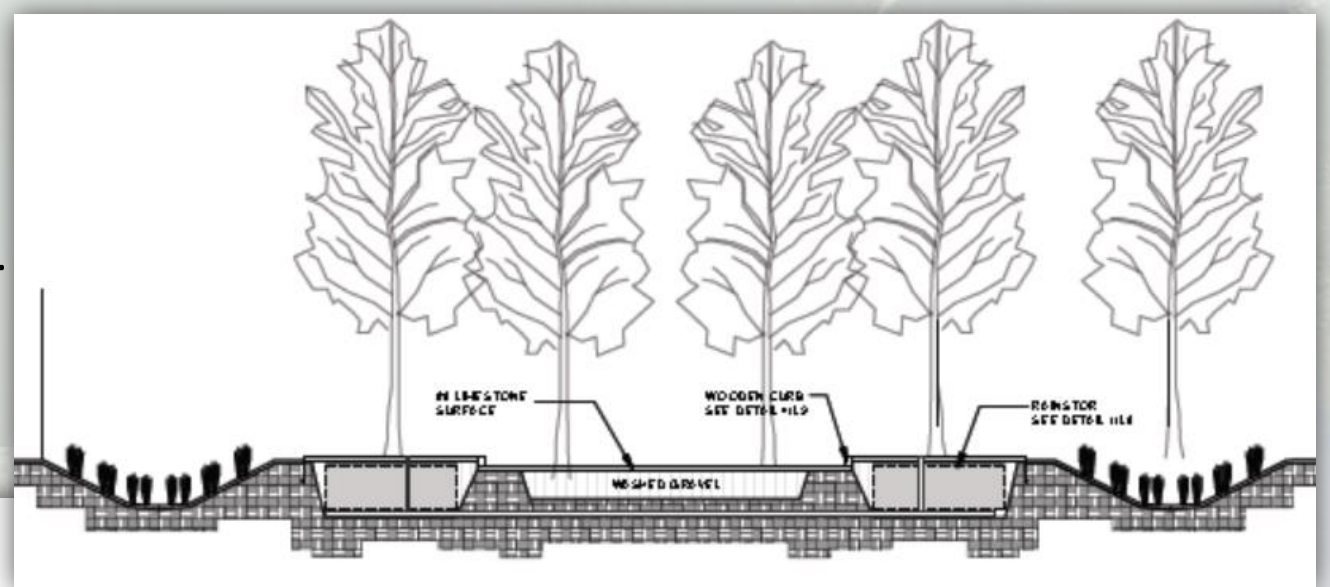
PARTNERS: Sankofa CDC, Evans & Lighter, Dr. John Day Jr., Common Ground Relief, Audubon Nature Institute, Hike for KaTREEena, Design Jones, LLC, MDM Design, Wetlands Resources, LLC

- Highlights the role of wetlands in stormwater management.
- 50,000 gallons of stormwater can be held on site.



Water Effectiveness in Broadmoor-\$79,118.11

PARTNERS: Land Trust for Louisiana, Evans and Lighter, Trigon Associate, City of New Orleans, E & E Strategies.



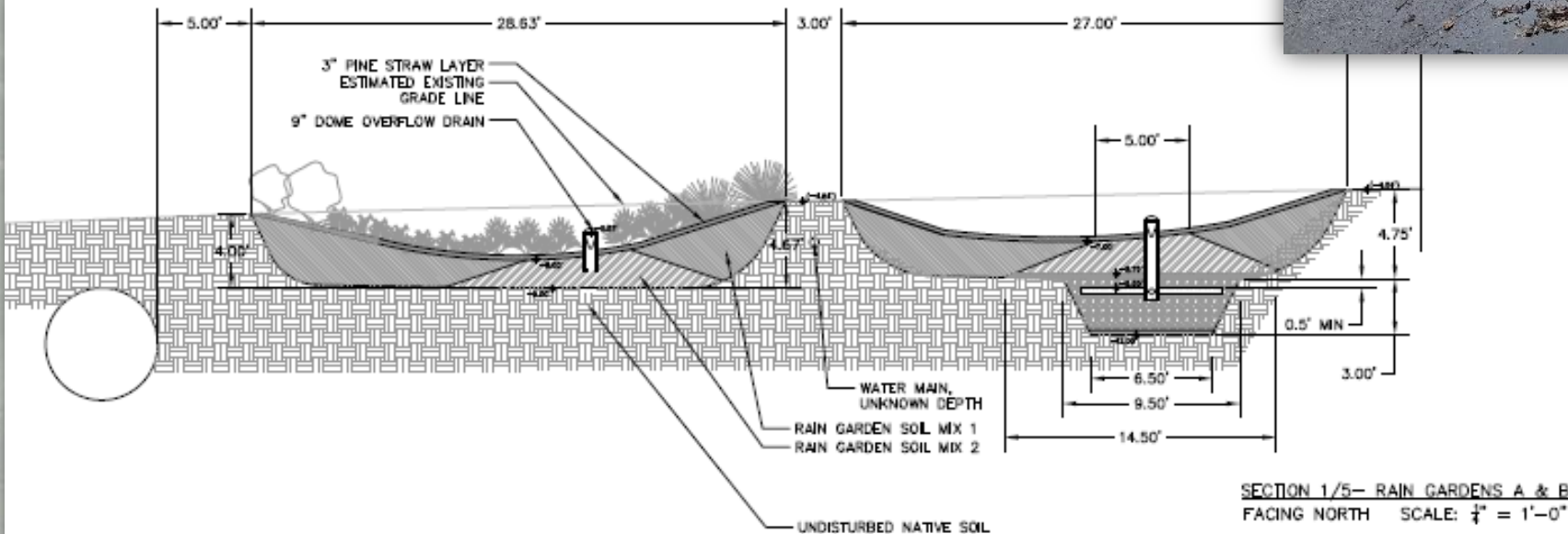
44,880 Gallons of water stored in 2 rain gardens, 2 underground storage tanks/cisterns, and a gravel detention area.



Aurora Rain Gardens-

\$65,105.00

- Two separate rain gardens to capture street runoff.
- Additional underground stormwater storage capacity in gravel base of one of the rain gardens.
- Overflow drains connected to stormwater system designed to prevent onsite flooding.
- Designed to drain in 24-48 hours.



PARTNERS: Gaea Consultants,
Greenman Dan, Groundwork
NOLA

Rabouin International School Green Roof

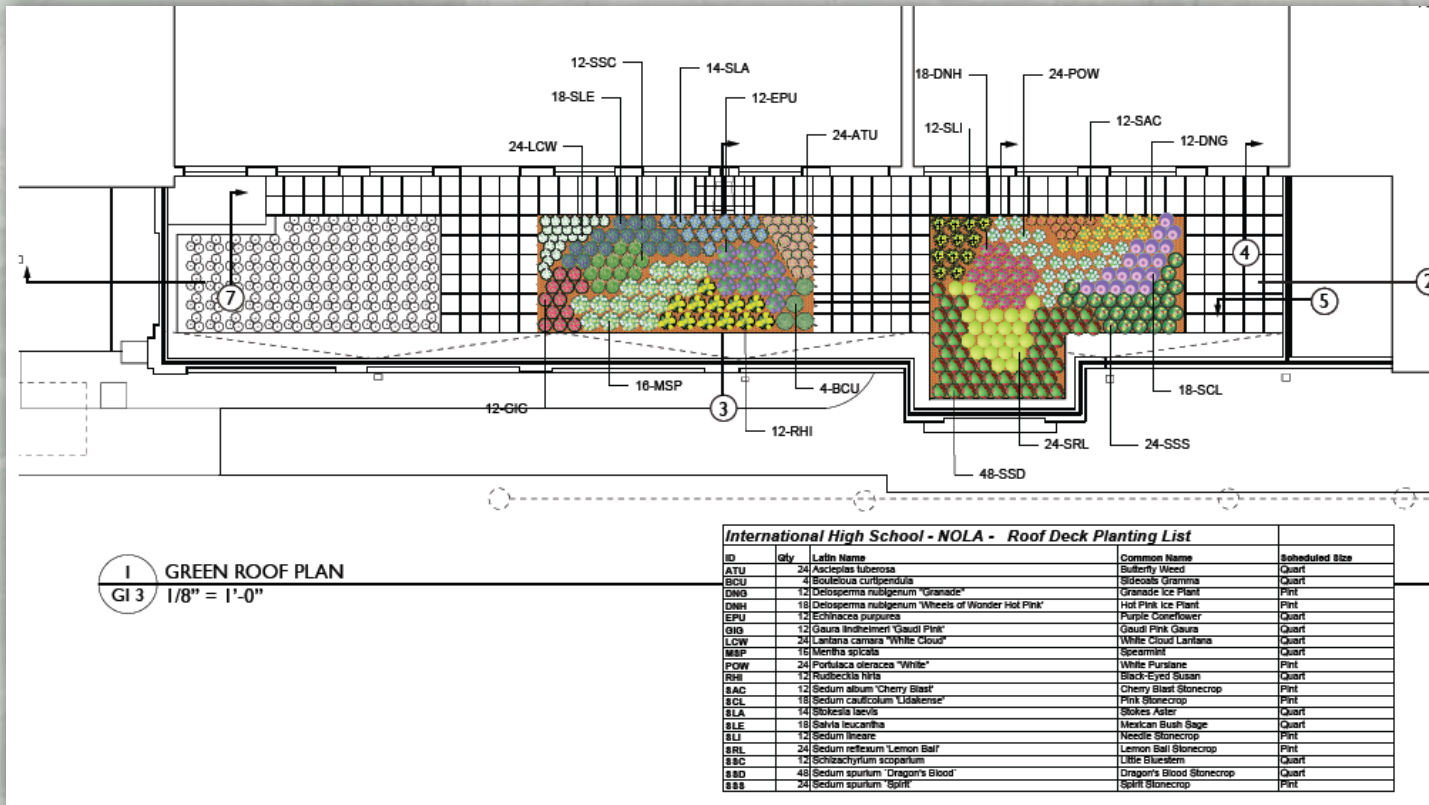
\$94,064.72

PARTNERS: Hanging Gardens, Rabouin International High School, VertiFarms

- 17,500 gallons of water held per rain event
- Includes blue and green roofs (handweeding and watering)

- Green roof includes:

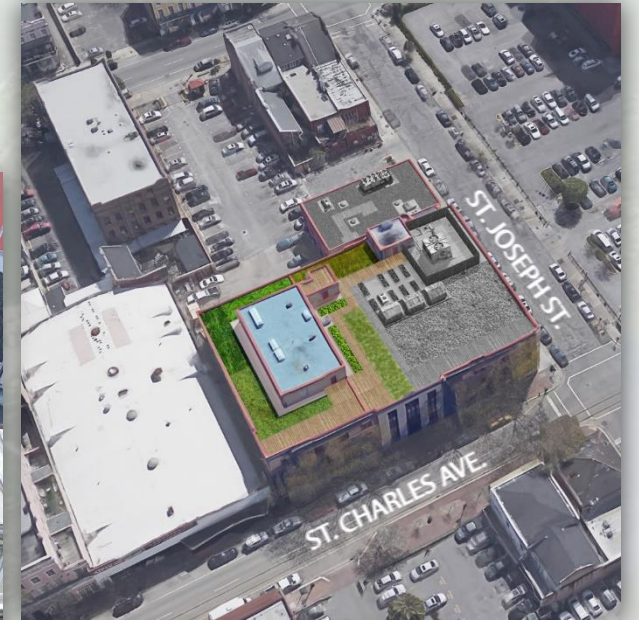
- Native plants
- Growth media
- Filter fleece
- Drainage/retention board
- Root barrier
- Waterproofing
- Leak detection grid



SWB Green Roof- \$351, 380.75

PARTNERS: Hanging Gardens, Evans + Lighter, Morphy Makofsky, Independent Roofing Systems, Greensite, AD Greenroof

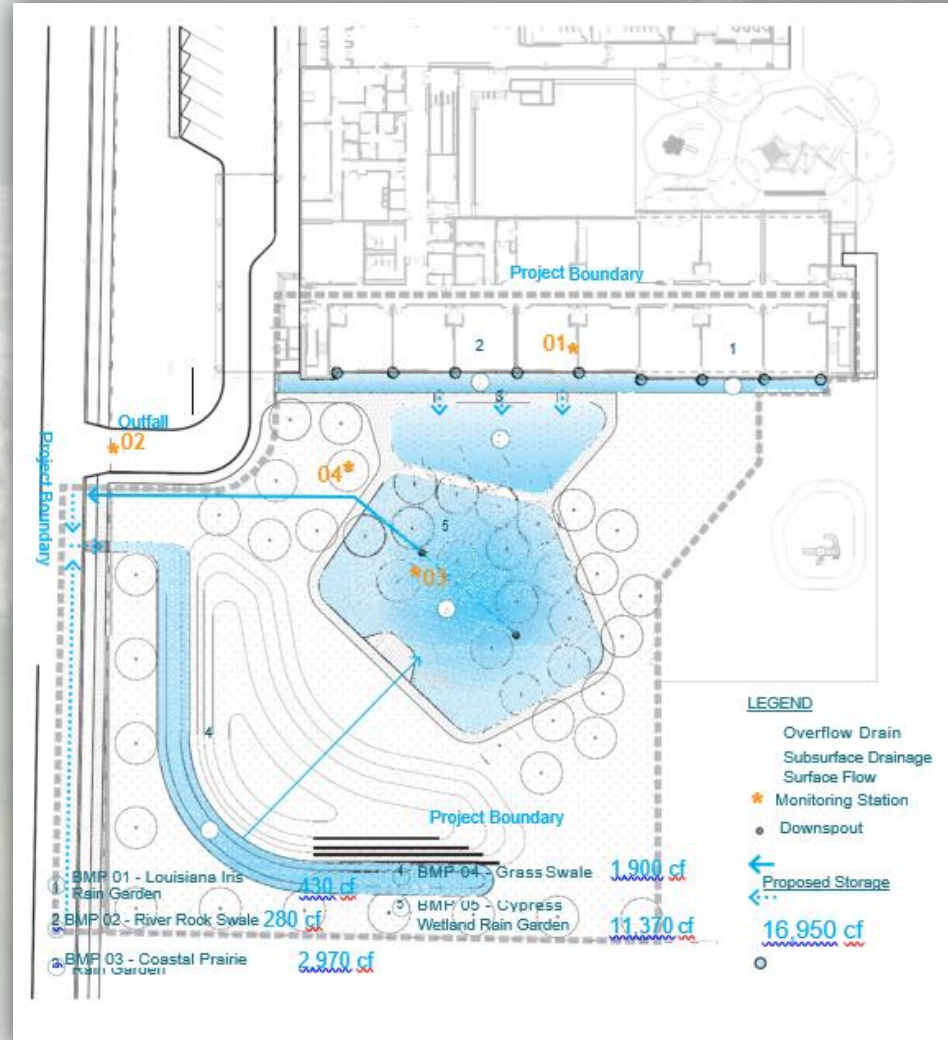
- Green Roof
 - Uses Rain Water
 - Moisture Detection
 - Sprinkler System
 - Smart System
 - Various Soil & Rock Mixtures
- Blue Roof
 - Pools Water (0"-6") up to 48 hours
 - Smart Drains



Paul Habans Educational Stormwater Center \$376,974.95

Proposed Project Includes:

1. Louisiana Iris rain garden
2. River rock swale
3. Coastal prairie rain garden
4. Shallow grass swale
5. Cypress wetland rain garden
6. Four water monitoring stations



PARTNERS: Spackman
Mossop Michaels, Mullin
Landscape Associates,
Palmisano, Three C's
Properties, Inc.

Climate-Smart Cities Tool

THE TRUST
FOR
PUBLIC
LAND

New Orleans - Climate Smart Cities

Parcel and ROW Report

October 23, 2018

Page 1 of 3

THE TRUST
FOR
PUBLIC
LAND

Parcel ID: 41091493 Acres: 0.19 Neighborhood: ST. ROCH
Address: 3131 RABBITTS ST

Additional Parcel Information

Parcel Exempt Class: ER	NORA Property: YES
Parcel Exempt Type: V	School Property: NO
Hectares: 0.08	SWB Basin: DPS 19

Right-of-Way

Road Class:	Speed Limit 0.00
Intersection:	One Way: N
Median:	Bus Route (short):
Width from Parcel to Curb: 0.00	Bus Route (long):
ROW Block:	Pavement Condition: Very Poor
Canal Type:	Canal Name:

Green Infrastructure Suitability Indicators

Min. Ann. Water Table Dpth. (cm): 61.00	Mean Percent Canopy: 0.00
NLCD Landcover: Developed, Low Intensity	Mean Percent Impervious: 37.00
SSURGO Subsidence Estimate (cm): 18.00	Mean Slope: 1.74
Mean Elevation: -6.30	SSURGO Hydrologic Soil Group: D

Overall Stacked Priorities

Overall Stacked Priorities	Acres	Percent	Present
Overall Stacked Priorities	0.19	100.0%	Yes

Legend

New Orleans Parcels



Climate-Smart Cities New Orleans

Q Enter an address or place

Overlay Data

- ☒ City Boundary
- ☒ Parcels and ROW
- ☐ Administrative Boundaries
- ☒ Green Infrastructure Suitability
 - ☒ NORA Property
- ☐ Tax Exempt Properties
- ☐ Drainage Basins
- ☐ SSURGO Subsidence
- ☐ SSURGO Hydrologic Soil Group
- ☐ Slope
- ☐ Tree Canopy (NLCD)
- ☐ Landcover (NLCD)
- ☒ Impervious Percent (NLCD)
 - 76.00000001 - 100
 - 51.00000001 - 76
 - 33.00000001 - 51
 - 13.00000001 - 33
 - 0 - 13
- ☐ Elevation feet (LA State)
- ☐ ITree Block Group Metrics
- ☐ Brownfields
- ☐ Absorb
- ☐ Cool
- ☐ Connect
- ☐ Climate Equity
- ☐ Health
- ☐ Creative Placemaking

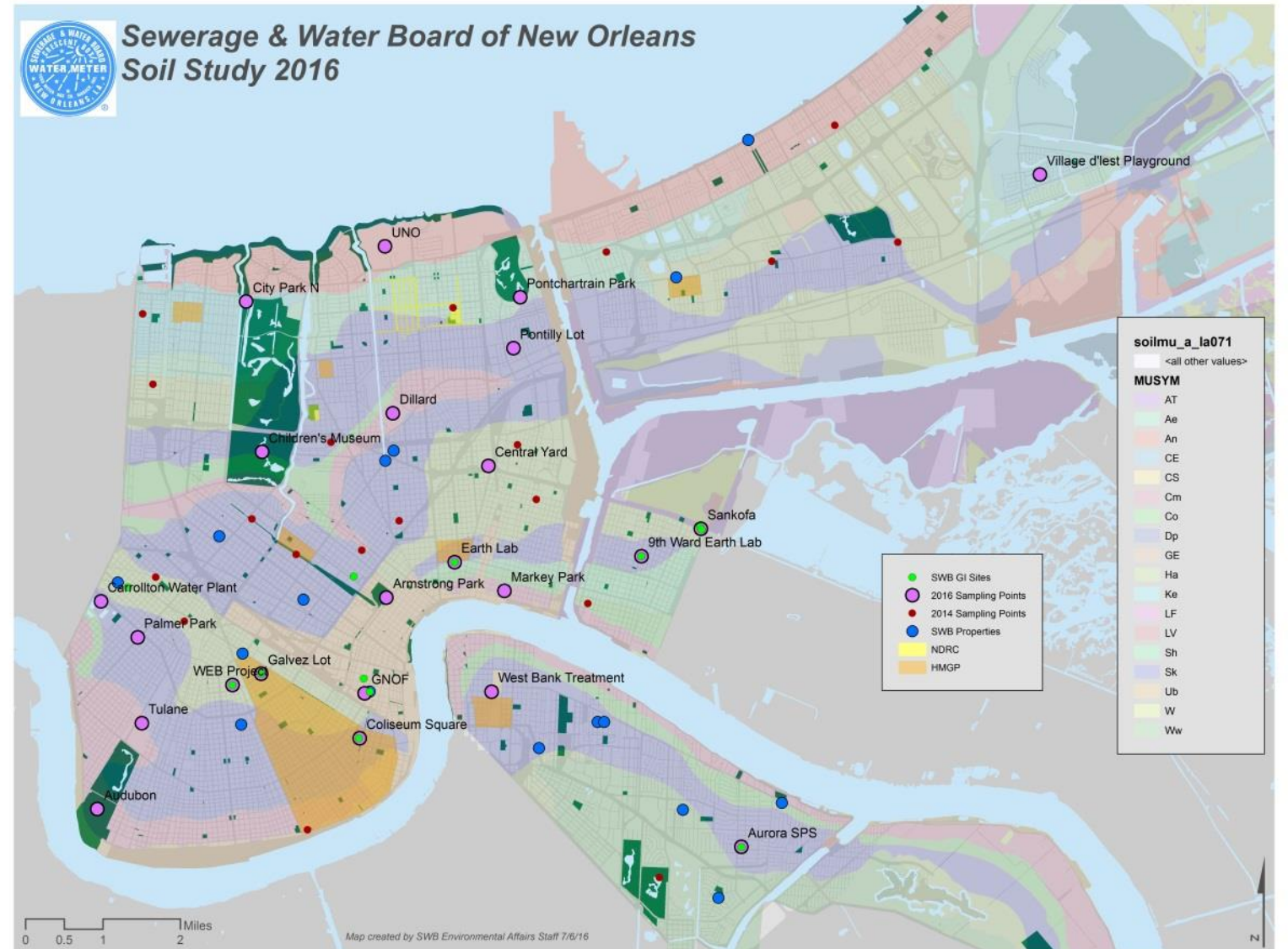
Analysis Results



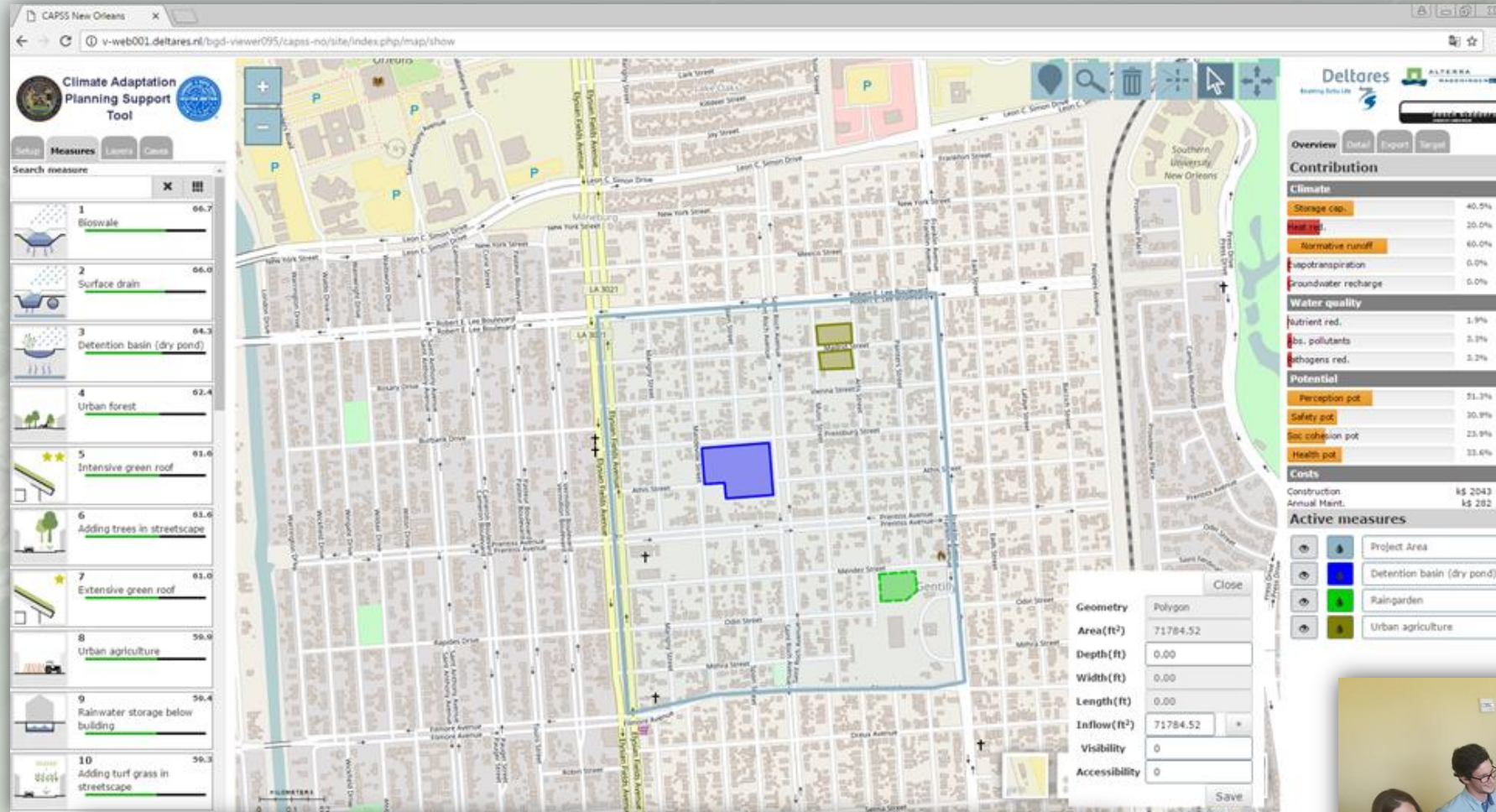
Soil Sampling/Analysis



- Eustis Engineering, LLC was project lead.
- \$65, 467.30 of SWB funds spent towards the completion of this project.
- Understanding our soils will allow us to implement future GI in a more strategic manner.

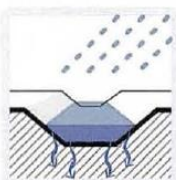


Adaptation Support Tool



- \$70,389.05 spent on this project.
- Valuable tool for showing impacts of stormwater management interventions at neighborhood and block scales.

Bioswale



Bioswales are similar to bioretention cells in that they are depressed planted areas with overflow structures that collect, detain, infiltrate, and filter runoff. However, bioswales differ from bioretention cells in that they are also conveyance facilities (linear systems) that are greater in length than width; they are often equipped with an underdrain.



GI Toolkit- Standard Details



SEWERAGE AND WATER BOARD OF NEW ORLEANS

WITH THE
CITY OF NEW ORLEANS
DEPARTMENT OF PUBLIC WORKS

GREEN INFRASTRUCTURE STANDARD DETAILS

SHEET INDEX

COVER SHEET		
A. BIORETENTION TYPICAL DETAILS FOR BIORETENTION CELLS		GI-A1
B. BIOSWALES TYPICAL DETAILS FOR BIOSWALES		GI-B1
C. STORMWATER PLANTERS TYPICAL DETAILS FOR STORMWATER PLANTERS		GI-C1
D. RESERVED		
E. INFILTRATION TRENCHES TYPICAL DETAILS FOR INFILTRATION TRENCHES		GI-E1
F. PERVIOUS PAVEMENT TYPICAL DETAILS FOR PERVIOUS PAVEMENT		GI-F1
G. RESERVED		
H. RESERVED		
I. RESERVED		
J. TREE CELLS TYPICAL DETAILS FOR TREE CELLS		GI-J1
K. RETENTION/DETENTION BASINS TYPICAL DETAILS FOR RETENTION BASINS TYPICAL DETAILS FOR DETENTION BASINS		GI-K1 GI-K2
L. MISCELLANEOUS DETAILS TYPICAL DETAILS FOR GI TREE & SHRUB PLANTING TYPICAL DETAILS FOR CURB GAPS AND STEP OUT ZONE TYPICAL DETAILS FOR GI FOOTBRIDGE TYPICAL DETAILS FOR MISCELLANEOUS GI ELEMENTS		GI-L1 GI-L2 GI-L3 GI-L4

 <small>THE SELECTION AND USE OF THESE STANDARD DETAILS IS SOLELY THE RESPONSIBILITY OF THE USER. THE CITY OF NEW ORLEANS AND THE SEWERAGE AND WATER BOARD OF NEW ORLEANS ASSUME NO LIABILITY FOR ANY DAMAGES OR LOSSES RESULTING FROM THE USE OF THESE STANDARD DETAILS.</small>	SEWERAGE AND WATER BOARD WITH THE CITY OF NEW ORLEANS DEPARTMENT OF PUBLIC WORKS		 DRAWING NO.
	COVER SHEET		
	DESIGNED BY	REVIEWED BY	
	DATE	SCALE	
APRIL 2018		AS NOTED	APPROVED BY
NOT FOR CONSTRUCTION			

- Provides standards common green infrastructure:
 - Bioretention Cell
 - Bioswale
 - Tree Cell
 - Stormwater Planter
 - Wet Detention Basin
 - Dry Detention Basin
 - Infiltration Trench
 - Pervious Pavement
- Accompanying guidance document and plant list
- Partnership with CDM Smith and the City of New Orleans.

GI Toolkit- Stormwater Calculator

- Determination of Building Code Chapter I, Section 121 requirement to detain the first 1.25" of rainfall from a site.
- Excel based spreadsheet with five tabs.
 - Instructions
 - Summary
 - Pre-Development
 - Post-Development
 - Water Quality
- We use water-quality component to assess a proposed development's ability to decrease Total Suspended Solids by 40-60%.
- Not intended to replace hydraulic modeling when required.
- \$82,885.00

Ongoing GI Initiatives

- 2019 RFP to install GI on SWB property
- Site Monitoring
- Outreach and Education
- Catch basin cleanups

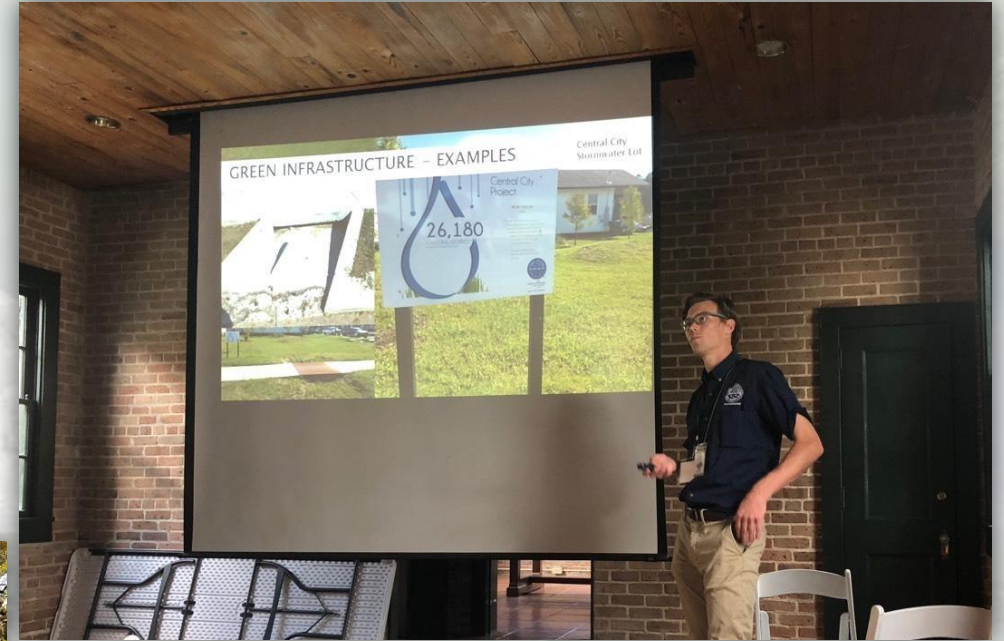


Green Roof Tours



Earth Fest

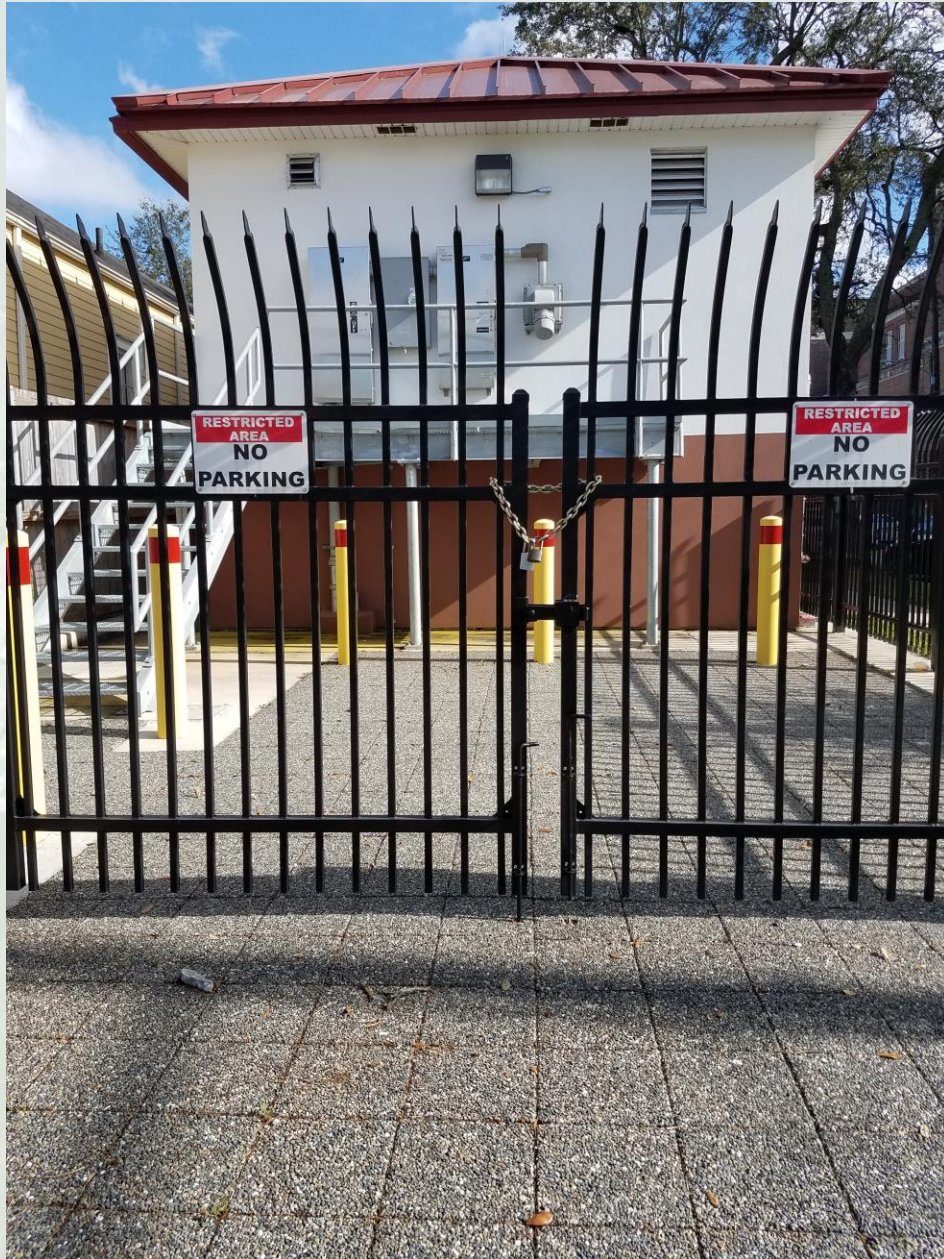
Educational Presentations



Before

After





Other SWB GI

SPS 06 – 242 S Solomon

- New Sewer Pumping Station in Mid City
- Permeable Pavers
- Dotd SPS also has permeable pavers in rear

An aerial photograph of a coastal town, likely in the Pacific Northwest, featuring a winding river, a large lake, and a prominent bridge. The image is overlaid with a green filter.

Thank you

SEWERAGE & WATER BOARD OF NEW ORLEANS



Federal Grants Procurement Policy

Responsible Officer	Chief Financial Officer
Responsible Office	Purchasing
Issuance Date:	
Effective Date:	
Last Review Date:	
Scope:	Applies to all positions/employees/departments

Contact:	Yvette R.D. Downs
Title:	Chief Financial Officer
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Table of Contents

1.	Introduction and Purpose	3
2.	Code of Conduct	3
3.	Pre-Solicitation	5
4.	Solicitation Procedures	9
4.1	Full and Open Competition	9
4.2	Methods of Procurement	10
	Small Purchases	10
	Formal Sealed Bids	11
	Competitive Proposals	12
	Unique and Non-competitive Procurement	12
	Construction Projects	13
	Goods, Non-Professional Services, and Materials.....	13
	Professional Services	14
5.	Award	14
5.1	Awarding Contracts.....	14
5.2	Contract Costs/Prices	15
5.3	Prohibited Contracts	16
6.	Contract Provisions	16
6.1	Special Conditions	17
6.2	Federal Funding Compliance Provisions.....	17
7.	Contract Administration.....	20
8.	Awarding Agency Review.....	20
9.	Protest Policy	21
10.	Amendments/Task Orders/Change Orders	21
11.	Related Information.....	22
12.	Frequently Asked Questions.....	22
13.	Revision History	22

1. Introduction and Purpose

When appropriate, the Sewerage and Water Board of New Orleans (“SWBNO”) requests Federal grant monies for projects that benefit residents of New Orleans. The SWBNO will follow all Federal guidance and ensure the proper financial stewardship of taxpayer resources. The document serves to outline the SWBNO’s procurement policy for all federally-funded projects and purchases. These policies and procedures reflect applicable state and local laws and their conformity to the applicable federal laws and standards identified in 2 CFR 200.318-326.

All procurements, that use or contemplate federal funds, shall be overseen by the Purchasing Department (Purchasing), in strict accordance with the Purchasing Department’s Procedures. In instances when state or local laws are more restrictive than Federal law, they are noted in Purchasing’s Procedures, which are available to the public on the SWBNO website. This document will be updated as needed to reflect changes in federal regulations or state and local laws.

All procurements in which federal funds are contemplated or used must be conducted in accordance with federal procurement requirements. This policy explains the roles of various SWBNO personnel with respect to federally-funded procurements by providing a cross-reference between federal procurement regulations and explains the applicable SWBNO procurement policy and how it conforms with federal requirements.

All SWBNO User Departments shall consult this policy when dealing with any procurements in which federal funds are contemplated or used. To ensure compliance, the User Department shall liberally construe as to whether a project may utilize federal funding, and thereby subject to the Federal Grant Procurement Policy. If a procurement is subject to the Federal Grant Procurement Policy, the User Department shall utilize the Federal Procurement Checklist to ensure compliance with all federal requirements.

Any interpretations, determinations or conflicts relating to the application or meaning of any of the provisions contained in this policy shall be made in the sole discretion of the Director of Purchasing or their designee. This shall include any interpretations as to whether a particular procurement is subject to the Federal Procurement Policy.

2. Code of Conduct

1. No employee, officer, or agent of the SWBNO shall participate in the selection, award, or administration of any contract supported by federal funds if a conflict of interest, real or apparent, is or would be involved. Such a conflict could arise if the employee, officer, or agent; any member of his/her immediate family; his/her partner; or an organization which employs (or is about to employ) any of the above, has a financial or other interest or a tangible personal benefit from a firm considered

for a contract. All members of the Selection Committee agree to evaluate proposals independently. They must execute a disclosure certifying that they do not possess a conflict of interest involving any of the respondents and are required to submit a standard disclosure form to identify any potential conflicts of interest. **2CFR 200.318(c)(1).**

2. No employee, officer, or agent of the SWBNO shall solicit or accept gratuities, favors, or anything of monetary value from contractors or firms, potential contractors or firms, or parties to sub-agreements, except where the financial interest is not substantial. All SWBNO officials, employees and agents are subject to the State of Louisiana Ethics Code, which prohibits the solicitation or acceptance of gratuities, favors, or anything of economic or monetary value from any person or entity for performance of their official duties, including issuance, review, and awarding of solicitations. This restriction not only applies to the SWBNO employee, officer, or agent, but also to that person's family or any entity in which that person or their spouse has control interest or owns more than 25%. All SWBNO employees must complete annual ethics training regarding all applicable State ethics laws. **2 CFR 200.318(c)(1).**
3. The prohibition against conflicts of interest and gratuities and kickbacks shall be conspicuously set forth in every written contract and solicitation. It shall be a breach of ethical standards for any public employee or former employee, officer, or agent knowingly to use confidential information for his actual or anticipated personal gain or the actual or anticipated personal gain of any other person. Such a breach shall subject the public employee or former employee, officer, or agent to the jurisdiction of the Louisiana State Ethics Board. **2 CFR 200.318(c)(1).**
4. The Louisiana State Ethics Code mandates that all Agency Heads, through the SWBNO's Human Resources Department, must report alleged violations of the established standards of conduct to the Louisiana Ethics Review Board. Where violations appear to have occurred, the offending employee, officer or agent shall be subject to disciplinary action by the Louisiana Ethics Review Board, including but not limited to dismissal, suspension, or reduction in pay or position; censure and/or fine of not more than \$10,000.00 per violation; prohibition of appearing before the public agency; prohibition of negotiating or entering into contract with the public agency; rescission of contracts, permits, and licenses without public contractual liability; forfeiture of any gifts or payments made in violation of the Louisiana State Ethics Code; imposition of late fees for failure to pay imposed fines; and objection to candidacy of person with outstanding fine, fee, or penalty resulting from violation of

Louisiana State Ethics Code equal to or greater than \$250. Ethics allegations and violations are personal violations and the SWBNO shall not provide any SWBNO employees, officers, or agents with legal assistance or defense related to such allegations or violations. **2 CFR 200.318(c)(1).**

5. As outlined in Purchasing's Procedures, the SWBNO utilizes a two-step check on all vendors during the procurement process. First, if federal funds are utilized, the SWBNO checks the potential vendor list against SAM.gov to verify that the potential awardee is not subject to federal debarment or suspension status. Second, if non-federal funding is used, the SWBNO consults its database of Vendor Evaluation forms to determine if there was a previous violation. Additionally, vendors are required as a part of their response to a solicitation to attest to the fact that they have not violated any standards in their submission to the Board. If the SWBNO determines that the vendor has been debarred, the SWBNO will not award a contract to the entity. **2 CFR 200.318(b)(c)(1).**

3. Pre-Solicitation

Section 3 is the responsibility of the Project Manager, User Department head, and Purchasing Department.

1. The SWBNO's Purchasing Department, led by the SWBNO's Purchasing Director and their designee, retain full control of all SWBNO's procurement actions, including actions related to the SWBNO's administration of federal funding. Purchasing coordinates with various SWBNO departments to gather information necessary to complete procurement activities, including language needed for solicitation documents (e.g. scope of work for a Request for Proposals), independent cost estimates for inclusion in bid packages, and maximum contract amounts. While SWBNO department personnel may sometimes play an active role in a particular procurement, Purchasing maintains authority over all aspects of the procurement process and leads the development and implementation of key forms, templates, checklists, and workflows. It is the Purchasing Director's responsibility to review all proposed procurement actions to avoid the purchase of unnecessary or duplicative items. Such reviews shall consider consolidation or breaking out to obtain a more economical purchase. User Groups will make the initial determination of when to analyze lease versus purchase alternatives and any other appropriate analysis to determine the most economical approach based on the procurement request. Once it is determined whether leasing is the most economical form of procurement, the

Purchasing Director will review the analysis and sign off on the procurement. **2 CFR 200.318(d).**

2. The SWBNO will maintain records sufficient to detail the history of each procurement activity. These records will include, but are not limited to, the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, and the basis for the contract price. The Procurement Checklist will be utilized for every federal procurement (with a copy kept in the procurement file) to ensure compliance with applicable federal, state, and local regulations and requirements. Purchasing will own all aspects of the procurement process and review the checklist to ensure compliance. While the User Department and other appropriate SWBNO personnel may complete certain forms and checklists, the Purchasing Director must provide approval of every formal procurement. The User Department may keep a procurement file, but complete procurement files will remain with Purchasing. **2 CFR 200.318(i).** The records will be maintained in accordance with the SWBNO retention policy.

The procurement checklist is the responsibility of the Project Manager and is to be verified by the User Department head or designee and the Purchasing Director to ensure items are properly completed and checked off.

3. The requesting SWBNO User Group will perform cost or price estimates in connection with every procurement, including change orders and contract modifications or amendments. The method and degree of analysis is dependent on the facts surrounding the procurement situation. As a starting point, the SWBNO will perform an independent cost estimate prior to receiving bids or proposal. The independent cost estimate will be tailored to the particular procurement and may include evaluation of historical documentation of past projects of a similar scope and scale, average costs for similar work in the area, published unit costs from a national cost estimating database and federally established cost codes, equipment rates, and engineering and design services curves. **2 CFR 200.323(a).**
4. A cost reasonableness analysis and associated documentation are required for every RFQ or RFP or any time price competition is not the main evaluation factor. This analysis must be completed before awarding the contract. A Cost Analysis is the evaluation of separate elements (e.g. labor, materials, profit, etc.) that make up a contractor's total cost proposal or price, to determine if costs are allowable, directly related to the requirement, and, ultimately, reasonable. Cost analyses are used when there is no price competition or when price competition is not the only

evaluation factor, such as procuring architectural and engineering (A/E), professional, consulting, or program administrator services. **2 CFR200.323(a)**.

5. Where appropriate, the SWBNO will explore the feasibility of entering into State and local intergovernmental agreements or cooperative endeavor agreements. This process, known as piggybacking, is used to foster greater economy and efficiency in accordance with efforts to promote cost-effective use of shared services. The SWBNO will also explore the use of federal excess and surplus property in lieu of purchasing new equipment and property if feasible and if it reduces project costs. The SWBNO will also explore the feasibility of using value engineering (the systematic and creative analysis of each contract item or task to ensure that its essential function is provided at the overall lower cost) in the following two scenarios: (1) if a cost estimate is over budget or (2) if bids come in through the procurement over budget. The Purchasing Director or their designee, will complete the assessments above prior to bidding. Notwithstanding any other State or City laws, regulations or policies, the SWBNO shall not enter into contracts that involve federal funding or assistance, utilizing non-competitive procurement, except as expressly provided in the unique and non-competitive procedures outlined in Section 4(e) of the Procurement Procedures. **2 CFR 200.318(e)(f)(g)**
6. The SWBNO will take all necessary affirmative steps to assure that minority businesses, women-owned business enterprises, and labor surplus area firms are procured when feasible. The SWBNO's affirmative steps shall be implemented through the SWBNO's Economically Disadvantaged Business Program (EDBP), which is outlined below. Through explicit requirements, goals, and contractual language, the EDBP requires that all contractors take proactive steps and make all reasonable efforts to benefit disadvantaged business enterprises, in accordance with formally adopted rules and procedures.

To ensure that a broad spectrum of local and small businesses receive equitable contracting opportunities with the Sewerage & Water Board, its Board of Directors authorized the State Local Disadvantaged Business Enterprise Program beginning in September 1997.

All contractors agree to use their best efforts to carry out the applicable requirements of the SWBNO's EBDP, including, without limitation, all reporting requirements and established EBD participation percentage. The Contractor's failure to carry out these requirements, as determined in good faith by the Economically Disadvantaged Business Department shall be deemed a material breach. This material breach may result in the termination of the contract and the pursuit of any

other remedies available to the SWBNO under any applicable law, ordinance, or rule. **2 CFR 200.321(a)(b)**

7. The SWBNO will comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 containing the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired by the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines. For federally-funded solicitations, the requesting SWBNO department shall include in the specifications the use of fully or partially-recovered (recycled) materials to the greatest extent consistent with reasonable performance standards in accordance with federal regulations. **2 CFR 200.322**

8. Bonding requirements for procurements with federal funds will include the minimum requirements listed below:

To be submitted with the bidding documents:

*A bid guarantee from each bidder equivalent to five percent of the bid price. The “bid guarantee” shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified. **2 CFR 200.325(a).***

The bid bond or other security may be enclosed with the other bid documents submitted by a bidder and need not be submitted in a separate envelope attached to the envelope enclosing the other bid documents.

To be submitted at time of contract award:

*A performance bond on the part of the contractor for 100 percent of the contract price. “performance bond” is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract. **2 CFR 200.325(b).***

A payment bond on the part of the contractor for 100 percent of the contract price.

A “payment bond” is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract. CFR Reference: 2 CFR 200.325(c).

4. Solicitation Procedures

Section 4 is the responsibility of the requesting User Department and the Purchasing Department.

Items outlined in Section 4 are verified through the Procurement Checklist. The SWBNO will complete the checklist as part of all federal procurements.

4.1 Full and Open Competition

1. All procurements utilizing federal funds, where the SWBNO is a direct party, shall be procured in a manner that provides maximum full and open competition. Procurement procedures will not restrict or eliminate competition. In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, or invitations for bids or requests for proposals are excluded from competing for such procurements. **2 CFR 200.319(a).**
2. The SWBNO shall not place unreasonable requirements on firms in order for them to qualify to do business, require unnecessary experience and excessive bonding, or encourage or participate in non-competitive practices among firms or affiliated companies. The SWBNO shall remain alert to organizational conflicts which would jeopardize the negotiation process and limit competition. The SWBNO shall not award non-competitive consultant retainer contracts except as expressly provided by funding source regulations. The SWBNO will not specify only a “brand name” product instead of allowing a “product equal to” to be offered. A “product approved equal to” description may be used to define the performance or other salient requirements of procurement. The specific features, performance, or other relevant requirements of the named brand which must be met by offerors shall be clearly stated. No arbitrary actions will be undertaken in the procurement process. **2 CFR 200.319(a)(1-7); 2 CFR 200.319(c)(1).**
3. The SWBNO will conduct procurements in a manner that prohibits the use of statutorily or administratively imposed local geographical preferences as selection criteria in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. This section

does not preempt State or local licensing laws. When contracting for A/E services, geographic location may be a selection criterion provided its application leaves an appropriate number of qualified firms given the nature and size of the project to compete for the contract. **2CFR 200.319(b).**

4. All solicitations shall incorporate a clear and accurate description of the technical requirements for the material, service, or product to be procured. In competitive procurements, these descriptions shall not contain features which unduly limit competition. The description may include a statement of the qualitative nature of the material, product, or service and, when necessary, the minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications shall be avoided whenever possible. The solicitation must identify all requirements which the offerors must fulfill and all other factors to be used in evaluating bids or proposals. **2 CFR 200.319(c) (1 - 2).**
5. The SWBNO will engage in a full and open RFQ process to provide the SWBNO with a prequalified list of persons, firms, or products that may be utilized for acquiring goods and services. The prequalified list shall be updated every two (2) years and include enough qualified sources to ensure maximum open and free competition for procurement of all goods and services, (including professional, nonprofessional and construction services), among the SWBNO's prequalified list of persons, firms, or products. **2 CFR 200.319(d).**
6. To be prepared for emergencies (e.g., hurricanes), the SWBNO will sometimes procure certain items in advance, before an actual need arises. In these instances, the SWBNO will follow the same procurement procedures, outlined in Section 4 (f) of the Procurement Procedures.

4.2 Methods of Procurement

Direct procurement by the SWBNO shall be made by using small purchases, formal sealed bids, competitive proposals, unique and non-competitive proposals, and emergency procurements. The SWBNO details each method of procurement (reflective of the item being procured) in the Purchasing Department's Procedures. For example, for small purchases, the SWBNO has separate procedures for construction, goods, non-professional services, and professional services.

Small Purchases

Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other property that do not cost more than the Simplified Acquisition Threshold. If small purchase procedures are used, price or

rate quotations must be obtained from an adequate number of qualified sources. **2 CFR 200.320**

Formal Sealed Bids

Procurement by sealed bids (formal advertising). Bids are publicly solicited, and a firm fixed price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bid method is the preferred method for procuring construction, if the conditions in paragraph (c)(1) of this section apply.

(1) In order for sealed bidding to be feasible, the following conditions should be present:

- (i) A complete, adequate, and realistic specification or purchase description is available;
- (ii) Three or more responsible bidders are willing and able to compete effectively for the business; and
- (iii) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.

(2) If sealed bids are used, the following requirements apply:

- (i) Bids must be solicited from an adequate number of known suppliers, providing them sufficient response time prior to the date set for opening the bids, for local, and tribal governments, the invitation for bids must be publicly advertised;
- (ii) The invitation for bids, which will include any specifications and pertinent attachments, must define the items or services in order for the bidder to properly respond;
- (iii) All bids will be opened at the time and place prescribed in the invitation for bids, and for local and tribal governments, the bids must be opened publicly;
- (iv) A firm fixed price contract award will be made in writing to the lowest responsive and responsible bidder. Where specified in bidding documents, factors such as discounts, transportation cost, and life cycle costs must be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and
- (v) Any or all bids may be rejected if there is a sound documented reason. **2 CFR 200.320.**

Competitive Proposals

The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids. If this method is used, the following requirements apply:

- (1) Requests for proposals must be publicized and identify all evaluation factors and their relative importance. Any response to publicized requests for proposals must be considered to the maximum extent practical;
- (2) Proposals must be solicited from an adequate number of qualified sources;
- (3) The Non-Federal entity must have a written method for conducting technical evaluations of the proposals received and for selecting recipients;
- (4) Contracts must be awarded to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered; and
- (5) The Non-Federal entity may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby competitors' qualifications are evaluated, and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms are a potential source to perform the proposed effort. **2 CFR 200.320.**

Unique and Non-competitive Procurement

Procurement by noncompetitive proposals. Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one source and may be used only when one or more of the following circumstances apply:

- (1) The item is available only from a single source;
- (2) The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;
- (3) The Federal awarding agency or pass-through entity expressly authorizes noncompetitive proposals in response to a written request from the non-Federal entity; or
- (4) After solicitation of a number of sources, competition is determined inadequate. **2 CFR 200.320**

Construction Projects

Thresholds	Procurement Type	Advertisement Period	Signature Required
Under \$150,000	Informal Bid	No formal advertising, three (3) quotes including one DBE are required.	Deputy Director of Requesting User Department
Between \$150,000 and \$999,999	Formal Sealed Bid	A minimum of twenty-one (21) consecutive days and publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Executive Director
Above 1,000,000	Formal Sealed Bid	A minimum of twenty-one (21) consecutive days and publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Mayor

Goods, Non-Professional Services, and Materials

Thresholds	Procurement Type	Advertisement Period	Signature Required
Under \$30,000	Informal Bid	No formal advertising, three (3) quotes including one DBE are required.	Deputy Director
Between \$30,000 and \$999,999	Formal Sealed Bid	A minimum of twenty-one (21) consecutive days and publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Executive Director
Above \$1,000,000	Formal Sealed Bid	A minimum of twenty-one (21) consecutive days and publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Mayor

Professional Services

Thresholds	Procurement Type	Advertisement Period	Signature Required
Under \$15,000	Informal Proposals	No formal advertising, three (3) proposals are required.	Deputy Director
Between \$15,000 and \$999,999	Procurement by Competitive Proposals	At a minimum of two (2) consecutive weeks and at least one publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Executive Director
Above 1,000,000	Procurement by Competitive Proposals	At a minimum of two (2) consecutive weeks and at least one publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Mayor

5. Award

Section 5 is the responsibility of the Purchasing Department, User Department, and Legal Department.

5.1 Awarding Contracts

Contracts will only be awarded to responsible and responsive firms that possess the ability to perform successfully under the terms and conditions of the proposed procurement. “Responsibility” refers to the character or quality of the bidder, with consideration being given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources. “Responsiveness” refers to the bidder’s compliance with all technical required specifications in the formal solicitation, inclusive of any addenda. Any bidders listed on the SAM.gov Excluded Party List will be deemed non-responsive and automatically excluded from consideration for award for any public assistance programs or activities.

1. Any or all solicitations may be deemed non-responsive or determined non-responsive for a sound documented reason. Respondents disqualified due to non-responsiveness or lack of responsibility will be notified in writing as to why their bid was deemed non-responsive, or not responsible. Construction bidders have the right to protest within seventy-two hours after the bid or proposal submission deadline. Full procedures for rejecting bids or proposals are outlined in Section 5 of the Procurement Procedures. **2 CFR 200.318(h); 2 CFR 200.320(c)(2)(v).**

2. Prior to award, the SWBNO shall review the successful respondent's bids and Purchasing shall access the SAM.gov system, to review bidder's status. Bidders that are debarred, suspended, or otherwise excluded from or ineligible for participation in federal assistance programs or activities are prohibited from being considered for award. Hard copy results of these comparisons shall be included in the procurement file. **2 CFR 200 Appendix II(I); 2 CFR 200.318(h); 2 CFR 2424**
3. Contracts resulting from sealed bids shall be awarded to the lowest responsive and responsible bidder and documented by publicly-available bid tabulation forms. Sealed Bid procedures are outlined in Section 4 (c) of the Procurement Procedures. **2 CFR 200.318(h); 2 CFR 200.320(c)(2)(iv); 2 CFR 200 Appendix II(I).**
4. Requests for Proposals shall be awarded to the proposal providing the best value to the SWBNO as determined using the selection criteria provided in the Request for Proposal and documented by publicly-available evaluation forms. Procedures for procurement by competitive proposals are available in Section 4 (d) of the Procurement Procedures. **See 2 CFR 200.320(d)**

5.2 Contract Costs/Prices

1. The SWBNO must conduct a cost analysis for all federal contracts to determine the reasonableness, allocation, and acceptability of such costs. To satisfy this requirement, the User Department shall prepare and submit a Cost Analysis Form to Purchasing along with the Bid Tabulation Form.
2. Documentation of full and open competition resulting in at least three bidders shall be deemed reasonable. **2 CFR 200.319(a).**
3. For professional services contracts, the SWBNO may negotiate price as a separate element, following consideration and ranking of all respondents based upon technical proposals, to select the proposal that provides the best value to the Board. Should the SWBNO fail to reach agreement on a lower price with the contractor determined to provide the best value, it may select the contractor providing the second-best value or terminate the procurement. **2 CFR 200.323(a)-(d).**
4. For federally funded contracts, the SWBNO may only use estimated costs as a basis for cost analysis for A/E contracts. **2 CFR 200 Subpart E Cost Principles; 2 CFR 200.323(a)-(d); 2 CFR 200.320(d)(5); 2 CFR 200.400 et seq.**
5. For contracts without price competition or where cost analysis is required in accordance with 2 CFR 200.323(a), the SWBNO must negotiate profit as a separate price element. To establish a fair and reasonable profit, consideration will be given

to the complexity of the work to be performed, the risk borne by the contractor, the contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work. The SWBNO utilizes a profit rate calculator to assess a reasonable level of profit for each contract. Board-generated performance reports and contractor reports on prior contracts shall also be considered for past performance. **CFR Reference: 2 CFR 200.323(a)-(d); 2 CFR 200.320(d)(5);**

5.3 Prohibited Contracts

1. Cost plus percentage of cost contracts and percentage of construction cost contracts may not be used under any circumstances. **CFR Reference: 2 CFR 200.323(a)-(d);**
2. Time and material contracts may not be used unless the SWBNO determines that no other contract is suitable. Time and materials contracts prescribe cost to the SWBNO as the sum of: 1) actual cost of materials; and 2) direct labor hours, charges at fixed hourly rates that reflect wages, general and administrative expenses, and profit. Use of such contracts shall require an established price ceiling to ensure that the agreement does not allow for an open-ended contract price with no profit incentive for the contractor to control costs or labor efficiency. Such contracts shall be subject to frequent oversight to ensure that the contractor employs efficient methods and effective cost controls. **2 CFR 200.318(j)(i-ii(2)).**

6. Contract Provisions

Section 6 is the responsibility of the Requesting User Department and the Legal Department.

Contracts involving federal funding or assistance shall include appropriate funding source compliance provisions and clear performance measures. The User Department shall inform the Purchasing of the use or potential use of federal funds or assistance prior to solicitation. Purchasing shall coordinate with the User Department to ensure that the proper funding source compliance provisions are included as part of any related Invitation to Bid or Request for Qualifications or Proposals. The Legal Department shall ensure that the appropriate Special Conditions, Declared Disaster and Performance Measures language, and appropriate compliance provisions are included as part of the agreement sent to the contractor for signature requesting User Department is responsible for updating the funding source compliance provisions.

6.1 Special Conditions

All contracts utilizing federal funding shall expressly incorporate the relevant funding source compliance provisions into the contract.

6.2 Federal Funding Compliance Provisions

All federal funding source compliance provisions shall include the following:

1. Contracts for more than the Simplified Acquisition Threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 USC 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. **2 CFR Appendix II Part 200(A).**
2. **Termination for Cause/Convenience.** All contracts in excess of \$10,000 must address termination for cause and for convenience by the Board, including the manner in which it will be affected and the basis for settlement. **CFR Appendix II Part 200(B).**
3. **Equal Employment Opportunity.** Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b) in accordance with Executive Order 11246. “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp. p. 339) as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.” Federal assisted construction contract “means any agreement or modification thereof between any applicant and a person for construction work which is paid for in whole or in part with funds obtained from the Government or borrowed on the credit of the Government pursuant to any Federal program involving a grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, or any application or modification thereof approved by the Government for a grant, contract, loan, insurance, or guarantee under which the applicant itself participates in the construction work.” **2 CFR Appendix II Part 200(C).**
4. **Davis-Bacon Act.** All prime construction contracts in excess of \$2,000 awarded by the SWBNO must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141–3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, “Labor Standards Provisions Applicable to Contracts

Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The SWBNO shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a SWBNO contract or subcontract must be conditioned upon the acceptance of the wage determination. The SWBNO shall report all suspected or reported violations to the Federal awarding agency.

2 CFR Appendix II Part 200(D).

5. **Copeland “Anti-Kickback” Act.** All contracts must include provisions provision for compliance with the Copeland “Anti-Kickback” Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The SWBNO shall report all suspected or reported violations to the Federal awarding agency.
CFR Appendix II Part 200(D).
6. **Contract Work Hours and Safety Standards Act.** All contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
2 CFR Appendix II Part 200(E).
7. **Rights to Inventions Made Under a Contract or Agreement.** All contracts under federal award that meets the definition of “funding agreement” under 37 CFR §401.2(a) and the recipient or subrecipient wish to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401 “Rights to Inventions Made by Nonprofit

Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency. **Appendix II Part 200(F).**

8. **Clean Air Act/Clean Water Act.** All contracts and subgrants of amounts in excess of \$150,000, shall contain a provision which requires agreement to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 USC 7401-7671q), and the Federal Water Pollution Control Act as amended (33 USC 1251-1387), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). **CFR Appendix II Part 200(G).**
9. **Energy Efficiency Standards.** All contracts shall include mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201). **2 CFR Appendix II Part 200(H).**
10. **Debarment and Suspension.** A contract award (see 2 CFR 180.220) must not be made to parties listed on the government-wide Excluded Parties List System in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR Part 1986 Comp., p. 189) and 12689 (3 CFR Part 1989 Comp., p.235), “Debarment and Suspension.” The Excluded Parties List System in SAM contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. **2 CFR Appendix II Part 200(I).**
11. **Byrd Anti Lobbying Amendment.** Contractors applying or bidding for an award of \$100,000 or more must file the required Byrd Anti-Lobbying Amendment certification and ensure each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 USC 1352. Each tier must also disclose any lobbying with non-federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier, up to the non-Federal award. **2 CFR Appendix II Part 200 (J).**
12. **Procurement of Recovered Materials.** Contracts must contain a clause stating contractors will comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds

\$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines. **2 CFR 200.322 and 2 CFR Appendix II Part 200(K).**

7. Contract Administration

Section 7 is the responsibility of the User Department and the Legal Department.

1. The SWBNO shall ensure contractors and firms perform in accordance with the terms, conditions, and specifications of their contracts or purchase orders. The accepted performance of contractors or firms will be a factor in subsequent contract negotiations and award. Remedial action by the SWBNO through legal processes shall be considered in instances of identified significant non-performance. **2 CFR 200.318(b)**
2. The SWBNO will be responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to source evaluation, protests, disputes, and claims. These standards will not relieve the SWBNO of any contractual responsibilities under its contracts. Federal agencies will not substitute their judgment for that of the SWBNO's unless the matter is primarily a Federal concern. Violations of law will be referred to the local, State, or Federal authority having proper jurisdiction. **2 CFR 200.318(k)**

8. Awarding Agency Review

Section 8 is the responsibility of the Purchasing Department and Requesting User Department

1. The SWBNO will make available, upon request of the awarding federal agency, technical specifications on proposed procurements where the awarding agency believes such review is needed to ensure the item and/or service specified is the one being proposed for acquisition. This review generally will take place prior to the time the specification is incorporated into a solicitation document. However, if the SWBNO desires to have the review accomplished after a solicitation has been developed, the awarding agency may still review the specifications, with such review usually limited to the technical aspects of the proposed purchase. **2 CFR 200.324(a)**
2. The SWBNO will make available upon request procurement documents, such as requests for proposals, invitations for bids, independent cost estimates, for the Federal awarding agency or pass-through entity's pre-procurement review

when:

- a. The SWBNO's procurement procedures or operation fails to comply with the procurement standards in this part;
 - b. The procurement is expected to exceed the Simplified Acquisition Threshold and is to be awarded without competition or only one bid or offer is received in response to a solicitation;
 - c. The procurement, which is expected to exceed the Simplified Acquisition Threshold, specifies a "brand name or equivalent" product;
 - d. The proposed contract is more than the Simplified Acquisition Threshold and is to be awarded to other than the apparent low bidder under a sealed bid procurement; or
 - e. A proposed contract modification changes the scope of a contract or increases the contract amount by more than the Simplified Acquisition Threshold. **2 CFR 200.324(b).**
3. The SWBNO will be exempt from the pre-procurement review in the above paragraph (2) if the Federal awarding agency or pass-through entity determines SWBNO procurement systems comply with the standards of this part. **2 CFR 200.324(c).**
- a. The SWBNO has cited specific policies, procedures, regulations, or standards as being in compliance with these requirements and has its procedures available for review. **2 CFR 200.324(2).**

9. Protest Policy

Section 9 is the responsibility of the Purchasing Department and the Requesting User Department

The SWBNO shall utilize standard procedures to process and resolve procurement-related disputes. Purchasing is responsible for all aspects of protests. Detailed protest procedures are outlined in Section 6 of the Procurement Procedures and provided on Purchasing's website (<http://swbno.org/business.asp>). Protestors must exhaust all administrative remedies provided by SWBNO outlined in the time frames given in Section 6 of the Procurement Procedures. The awarding agency shall be notified of all formal protests. Violations of law will be referred to the local, state, or Federal authority having proper jurisdiction. **2 CFR 200.318(k)**

10. Amendments/Task Orders/Change Orders

Section 10 is the responsibility of the Purchasing Department and Requesting User Department

Changes to existing contracts and purchase orders may be issued for construction, goods, materials and non-professional services that are procured through a sealed bid

process. Change Orders may not be used for informal bids. For construction contracts, a change order must be used. Professional Services, Goods, Materials, and Non-Professional Services agreements shall be amended via formal contract amendment.

11. Related Information

This section provides sources and other reference guides, policies, laws or regulations related to the policy. All applications, reporting and management of grants will be the responsibility of the Chief Financial Officer.

12. Frequently Asked Questions

Not applicable.

13. Revision History

SEWERAGE & WATER BOARD OF NEW ORLEANS



PRO-1: Procurement Policy Statement

Responsible Officer	Chief Financial Officer
Responsible Office	Procurement
Issuance Date:	
Effective Date:	
Last Review Date:	
Scope:	Applies to all positions/employees/departments

Contact:	Yvette R.D. Downs
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Table of Contents

1. Governing Authority	3
2. Introduction and Purpose	3
4. Policy Administration	4
5. Frequently Asked Questions	6
6. Revision History	6

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1. Governing Authority

This policy is governed by the Rules and Regulations of the Sewerage & Water Board of New Orleans (SWBNO) and all applicable State regulations. This policy will take precedence over all other procurement related policies generated by SWBNO.

2. Introduction and Purpose

It is the mission of the Sewerage and Water Board of New Orleans (“SWBNO”) to serve the people of New Orleans and improve their quality of life by providing safe drinking water, removing waste water for safe return to the environment and draining storm water to protect our community. In order to achieve this mission reliably and at a reasonable cost SWBNO adheres to a procurement process that meets all State and local regulatory requirements and in a way that is intended to deliver goods and services, including construction services, in a timely, economical and effective manner.

The procurement process includes supporting departments in forecasting their procurement needs, developing efficient and effective bid documents, managing the selection process and administration of each contract. The process also encourages full participation from the contractor community to respond to solicitations in a competitive manner while encouraging economic development within the New Orleans Parish.

3. Scope

This policy applies to all SWBNO employees and the Board of Directors. It is designed to assist responsible Board staff to ensure that all procurements:

- A. Are made in an ethical manner that is impartial and above reproach, with preferential treatment for none
- B. Are made efficiently and economically
- C. Are made within a defined contract management process that ensures at a minimum, that:
 - i. Solicitations and contracts are properly issued
 - ii. The methods of contractor selection and contract type are appropriate to the procurement and represent the Board’s best interest
 - iii. Bonding and security are obtained as appropriate
 - iv. Contractors have the necessary insurance to protect the board’s interests
 - v. Liquidated damages, when appropriate, are included in contracts
 - vi. Contractors perform in accordance with the terms and conditions of their contractors
 - vii. Payments are made only for goods and services, including construction services, received and authorized within the contract

- D. Contracts are made only to responsible contractors
- E. Contracts are made only to contractors selected in accordance with the stated evaluation criteria and Scope of Work
- F. Contracts are made without restrictive specifications that limit or inhibit full and open competition
- G. Exceptions are made by the Executive Director only when necessary for emergencies or to meet the best interests of SWBNO
- H. Include reasonable efforts to increase the opportunity for participation of business enterprises eligible under the Board's EDBP program
- I. Are approved at the appropriate level
- J. Have approved funding
- K. Meet all applicable Federal, State, Local and Municipal codes and regulations as applicable to the particular contract.

4. Policy Administration

SWBNO shall administer this policy through the Office of Procurement:

- A. A **Procurement Procedures Manual** shall be implemented and available for all employees. This manual will comply with procurement best practices, applicable laws and provide the administrative guidance necessary for all staff involved in the purchasing of contracts, goods and services to be able to conduct the operations of the Board in a way that complies with all regulations.
- B. The SWBNO reserves the right at any time and in its sole discretion to modify, rescind, delete or otherwise change the Procurement Procedures Manual and will review the manual for applicable updates no less than every 3 years.
- C. The Board of Directors delegates to the Executive Director the authority to develop, implement and enforce such procedures, consistent with the SWBNO rules and regulations and applicable State or local laws.
- D. Where SWBNO has procurement contracts that have any federal funding, the Board shall develop, implement and enforce a **Federal Grants Policy** that will be available to all staff for review.

Organizational conflicts of interest provide an offeror or a contractor (prime contractor or subcontractor) with an unfair competitive advantage or render the offeror or contractor unable, or potentially unable, to provide impartial assistance or advice to SWBNO. To avoid such conflicts, all SWBNO staff and Directors shall comply with the Conflict of Interest Policy. In addition, all staff working in the administration and oversight of third party contractors shall adhere to a Code of Conduct as follows:

- A. No employee, officer, or agent of the SWBNO shall participate in the selection, award, or administration of a contract if a conflict of interest, real or apparent, is or would be involved. Such a conflict could arise if the employee, officer, or

- agent; any member of his/her immediate family; his/her partner; or an organization which employs (or is about to employ) any of the above, has a financial or other interest or a tangible personal benefit from a firm considered for a contract. All members of the Selection Committee agree to evaluate proposals independently. They must execute a disclosure certifying that they do not possess a conflict of interest involving any of the respondents and are required to submit a standard disclosure form to identify any potential conflicts of interest. **2CFR 200.318(c)(1).**
- B.** No employee, officer, or agent of the SWBNO shall solicit or accept gratuities, favors, or anything of monetary value from contractors or firms, potential contractors or firms, or parties to sub-agreements, except where the financial interest is not substantial. All SWBNO officials, employees and agents are subject to the State of Louisiana Ethics Code, which prohibits the solicitation or acceptance of gratuities, favors, or anything of monetary value from any person or entity for performance of their official duties, including issuance, review, and awarding of solicitations. This restriction not only applies to the SWBNO employee, officer, or agent, but also to that person's spouse or any entity in which that person or their spouse own at least 25%. All SWBNO employees must complete annual ethics training regarding all applicable State ethics laws. **2 CFR 200.318(c)(1).**
- C.** The prohibition against conflicts of interest and gratuities and kickbacks shall be conspicuously set forth in every written contract and solicitation. It shall be a breach of ethical standards for any public employee or former employee, officer, or agent knowingly to use confidential information for his actual or anticipated personal gain or the actual or anticipated personal gain of any other person. Such a breach shall subject the public employee or former employee, officer, or agent to the jurisdiction of the Louisiana State Ethics Board. **2 CFR 200.318(c)(1).**
- D.** The Louisiana State Ethics Code mandates that all Agency Heads, through the SWBNO's Human Resources Department, must report alleged violations of the established standards of conduct to the Louisiana Ethics Review Board. Where violations appear to have occurred, the offending employee, officer or agent shall be subject to disciplinary action by the Louisiana Ethics Review Board, including but not limited to dismissal, suspension, or reduction in pay or position; censure and/or fine of not more than \$10,000.00 per violation; prohibition of appearing before the public agency; prohibition of negotiating or entering into contract with the public agency; rescission of contracts, permits,

and licenses without public contractual liability; forfeiture of any gifts or payments made in violation of the Louisiana State Ethics Code; imposition of late fees for failure to pay imposed fines; and objection to candidacy of person with outstanding fine, fee, or penalty resulting from violation of Louisiana State Ethics Code equal to or greater than \$250. Ethics allegations and violations are personal violations and the SWBNO shall not provide any SWBNO employees, officers, or agents with legal assistance or defense related to such allegations or violations.

2 CFR 200.318(c)(1).

The SWBNO may take action against employees, officers and agents as well as others who violate any provision of the procurement policy and procedures. Such action may include termination of the relationship with SWBNO. Any effort made by or on behalf of a non-employee, including an offeror or contractor, to influence an employee to breach the ethical standards of SWBNO is prohibited and may be referred to appropriate authorities for civil enforcement or criminal prosecution. A violation by a contractor or subcontractor of any procurement regulation may constitute a major breach of each SWBNO contract or subcontract to which the violator is a party. Additionally, SWBNO may determine an offeror or contractor to be non-responsible, or may suspend or debar any offeror or contractor who violates or whose representative violates any provision of SWBNO's procurement policies and procedures.

5. Frequently Asked Questions

Not applicable.

6. Revision History



Volume

1

SEWERAGE & WATER BOARD OF NEW ORLEANS

Finance Administration

Procurement Procedures Manual

FINANCE ADMINISTRATION

Procurement Procedures Manual

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Table of Contents

Chapter 1: Manual Summary.....	2
Chapter 2: Definitions.....	3
Chapter 3: Responsibilities.....	8
Chapter 4: Micro Purchases.....	9
Chapter 5: Small Purchases.....	10
Chapter 6: Formal Sealed Bids	14
Chapter 7: Procurement by Competitive Proposals.....	22
Chapter 8: Unique and Non-Competitive (Sole-Source)	27
Chapter 9: Emergency Procurement Procedures.....	30
Chapter 10: Non-Responsive or Not Responsible Respondents	31
Chapter 11: Procurement Protest Procedures.....	32
Chapter 12: Change Orders	34
Chapter 13: Step-by-Step Emergency Change Order Procedures	40
Chapter 14: Contract Amendments	43
Chapter 15: Procurement Summary Charts.....	47
Chapter 16: Other Procurement Methods	50
Chapter 17: Related Information.....	51
Chapter 18: Forms	52



Chapter 1: Manual Summary

This document serves as a reference document outlining all required procedures for compliance with the Sewerage and Water Board of New Orleans' Procurement Policy for the procurement of any items including those items for which federal funds will be utilized to pay for goods, services, or construction for the Sewerage and Water Board of New Orleans (SWBNO). All procurements in which federal funds are used or contemplated must be conducted in accordance with federal procurement requirements.

The Purchasing Department (Purchasing) works directly with each SWBNO User Department for all procurement related activities. The requesting User Department is responsible for providing the justification for items submitted to the Purchasing Department for procurement. The Purchasing Department is responsible for providing all required forms and approvals for all procurements. The Purchasing Department will work with all departments to ensure forms are current and up to date.

All forms referenced in *italics* in this document (and listed below) are available to download from the Purchasing Department's Website. This manual provides an alignment of the methods of procurement outlined in 2 CFR 200.319-26 and the methods of procurement which the SWBNO follows. Section 4 outlines the specific step-by-step procedures which the Purchasing Department follows to ensure that all procurements follow federal, state, and local guidelines.

Any interpretations, determinations or conflicts relating to the application or meaning of any of the procedures contained herein shall be made in the sole discretion of the Purchasing Director or their designee. Any proposed changes to this document must be submitted in writing to and expressly approved by the Purchasing Director.

Chapter 2: Definitions

Agreement – A legally binding document for the present or future procurement of goods and/or services by the SWBNO. (See also “Contract”, “Purchase Agreement” and/or “Purchase Order”)

Amendment – Any contract modification to a service contract.

Bidder – An entity (individual or an organization) that participates in a SWBNO formal bid process.

Buyer – A staff position within Purchasing. Buyers are not authorized to review change orders.

Change Order – Any contract modification that includes an alteration, deviation, addition, or omission as to a preexisting public work contract, which authorizes an adjustment in the contract price, contract time, or an addition, deletion, or revision of work.

Under public work contracts, a change order outside the scope of the contract means a change order which alters the nature of the thing to be constructed or which is not an integral part of the project objective.

Change order within the scope of the contract means a change order which does not alter the nature of the thing to be constructed and which is an integral part of the project objective

Claim – A formal request for a contract adjustment received from a vendor.

Commodity Agreements – Primary or secondary strategically sourced agreements designated for supply of goods or services to the SWBNO that were awarded as a result of competitive bid process. These agreements are for indefinite quantities during a period of time at firm prices or with an established basis for negotiated price changes.

Common Goods and Services – Standard commercial equipment, materials, supplies, and services readily obtainable through conventional commercial marketing channels.

Competitive Quotation – Responsive price quotations from a minimum of three qualified vendors submitted in accordance with a solicitation from Purchasing.

Conditional Approval – A conditional approval is issued in writing by the Executive Director or their designee, if the requested change is required to address an emergency in response to an immediate public health or safety risk. The conditional approval allows work to begin and guarantees up to \$10,000 of the change order cost; however, the full cost approval is dependent on the independent cost estimate (ICE), which must be completed within 48 hours of the change order request. Full approval requires a *Change Order Recommendation Form*, required supporting documentation completed and signed by the appropriate authorized approver, and review by the Contract Review Board.

Conditional Notice to Proceed – Permission to execute up to \$10,000 of work to address an identified Emergency. Conditional Notices to Proceed must be approved, in writing, by the SWBNO Executive Director. ***To be used for emergency change orders only.***

Contract – A legally binding document for the present or future procurement of goods and/or services by the SWBNO. (See also “Agreement” and/or “Purchase Order”)

Contract Administrator: A staff position within Purchasing. Contract Administrators are allowed to review a change order and confirm whether it is within the scope of the original contract.

Contracting Authority – A person who is authorized to commit funds to a project. Within SWBNO, the Executive Director is the only individual authorized to commit funds to a project. The Executive Director may select a designee(s) to sign off on certain projects should the need arise. The designee(s) must be identified in writing.

Contract Review Board – An internal review board who review change orders and contract amendments. The Contract Review Board consists of the following members: Executive Director, General Superintendent (GSO), Deputy General Superintendent, EDBP Director, Purchasing Director, Special Counsel, and the CFO (CFO).

Contract Manager – SWB employee who manages a professional services contract.

Contract Modification – Any change to a contract. Includes task orders, change orders, and contract amendments.

Construction – Construction includes moving, demolishing, installing, building, altering, repairing or improving a structure, facility, road, other improvement, or system according to a plan or by a definite process. Construction consists of the application of any of these techniques to any physical plant facilities such as structures, utilities, excavations, landscaping, site improvements, drainage systems, and roads. Exterior and interior painting of new structures is a form of construction.

Construction Projects – Construction projects are defined by the “Public Work” definition in Louisiana Revised Statute 38:2211

Consultant – A vendor that provides primarily professional or technical advice. Generally, the SWBNO does not control either the manner of performance or the result of the service.

Cost Reasonableness – A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost.

Cost Reasonable – Where the price for a good or service is determined to be fair and does not exceed what would be incurred by a prudent person through competitive business transactions.

Disadvantaged Business Enterprise (DBE) – A business concern which is at least 51% owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51% of the stock of which is owned by such individuals and whose management and daily business operations are controlled by one or more of such individuals. Like the other groups, this group advocates for policies that support small businesses and provide opportunities for small businesses, it provides technical and financing training, and it produces data on the successes/challenges of Small Disadvantaged Business Enterprises throughout the country.

Extreme Emergency Contracts – Including but not limited to fires, storms, floods, and other disasters necessitating major repairs or replacement of equipment and machinery pursuant to LSA R.S.33:4084.

Emergency Change Order – A change order within the terms and scope of the original contract that must be completed to address an immediate public health or safety risk.

- **Public safety emergencies** require public safety officials (police or fire) to be called to secure an area. This outreach must be documented for the change order file.
- **Public health emergencies** result in imminent threat of an illness or health condition that poses a substantial risk to a significant number of humans, facilities, or results in permanent or long-term disability, sickness, injuries, or fatalities.

Requests for an emergency change order must be justified with the following documentation:

- Photographs of the issue resulting in the emergency;
- Estimate of the damage to be prevented or reduced by the emergency change order; and
- Signed confirmation of contractor's willingness to incur cost outside of the cost reasonable assessment.

Emergency Budget Reserve – SBWNO may, but is not required to, include a 5% contract budget reserve within a contract. This reserve must be determined as cost reasonable and is used to address the cost of emergency change orders should they arise.

Engineering Estimate – A rough order of magnitude estimate prepared, prior to bids being solicited, by either consultant or Engineering Department staff. Engineering estimates may be used as part of the Independent Cost Estimate.

Field Consultant – A contracted person that observes field work at the project site for the Project Manager.

Goods and Materials – All property that is not immovable property and includes materials, supplies, equipment, vehicles, software, communication devices and systems, unattached fixtures, and similar items.

Independent Cost Estimate (ICE) – An estimate of the total cost to perform a scope of work, performed before a solicitation or before a change order is accepted. The ICE is used to assist in determining the reasonableness of a potential scope of work, proposal, or change order. An ICE is required for all procurements regardless of dollar amount.

Non-Professional Services – Non-technical or non-specialized services which do not typically require professional licensure, errors and omissions insurance, or special education or training. For SWBNO purposes, Non-Professional Services are procured by competitive procurements.

Notice to Proceed – An official notice sent to the procured vendor after procurement is complete or a change order is accepted. The Notice to Proceed establishes the start date for the procured services.

Personal Services – Technical or unique functions performed by a vendor that is distinctly qualified to render the services. Personal services are of a nature that the SWBNO would consider the vendor's experience, qualifications and skills to be more important than comparative cost when selecting a vendor. Examples of personal services include translation services, technical editing, technical appraisals, transaction valuation, etc.

Professional Services – Highly specialized functions, typically of a technical nature, performed by a vendor that, with respect to the services to be rendered, most commonly a) has a professional license; b) is licensed by a regulatory body; and/or c) is able to obtain professional errors and omissions insurance. Professional services are of a nature that the SWBNO would consider the vendor's experience, qualifications and skills to be more important than comparative cost when selecting a vendor. Examples of professional services include medicine and related medical services, and legal, accounting, architectural and engineering services.

Project Manager – A designated SWBNO employee assigned to manage and provide oversight of a SWBNO project, such as but not limited to design, construction, professional services or maintenance contracts procured for the benefit of SWBNO.

Purchase Agreement – A legally binding written contract between the SWBNO and a vendor containing the terms of a purchase for goods and/or services furnished to the SWBNO.

Purchase Order (PO) – A commercial document issued on a SWBNO Purchase Order form authorizing a vendor to furnish goods and/or services greater than one-thousand dollars (\$1,000.00), to the SWBNO according to stated terms with payment to be made later. A Purchase Order forms a contract when issued by the SWBNO and performed by the vendor. (See also “Agreement”, “Purchase Agreement” and/or “Contract”)

Public Voucher (PV) – An internal financial document describing and requesting payment for small purchases or reimbursements of limited items within the policy threshold.

Responsible Bidder – A bidder who has the capability in all respects to fully perform the contract requirements and whose integrity and reliability will assure good faith performance. Factors considered in evaluating responsibility may include financial resources, past performance, delivery capability, experience, organization, personnel, technical skills, operations controls, equipment, and facilities.

Sole Source Goods and/or Services – Sole source goods and/or services are the only ones that will meet the SWBNO’s needs because they are: a) unique (meaning, that their characteristics and functions are such that only the particular goods and services will properly satisfy the SWBNO’s needs and all other goods or services will be unacceptable for such needs); b) available only from one source; or c) (inapplicable to purchases that are federally funded) are designed to match others used in or furnished to a particular installation, facility or location. Note: in accordance with LA. R.S. 38:2212.1(c)(2), every bid specification for contracts governed by the public bid law should include open specification language. This means that SWBNO cannot arbitrarily exclude products which are functionally equivalent to a product described in the specifications.

Task Order – Activates a budget and scope that has already been identified within a contract/PO.

User Department – The SWBNO department responsible for managing the project, its related contracts, and any recommended the changes.

Vendor – a service provider, contractor, supplier or other entity entering into a Contract, PO or Subcontract directly or indirectly with the SWBNO.

Chapter 3: Responsibilities

Implementation of these Procedures

The Chief Financial Officer (CFO) is the Responsible Officer for this Procedure and has the authority to implement the procedures. The Responsible Officer may develop processes or other supplementary information to support the implementation of this Policy. Such supporting documentation does not require the approval of the Executive Director. The Responsible Officer may apply appropriate interpretations to clarify the procedure provided that the interpretations do not result in substantive changes to the underlying policy.

The Department Heads are authorized to establish and are responsible for departmental processes necessary to implement this procedure.

Revisions to these Procedures

The Executive Director is the Policy Approver and has the authority to approve procedure revisions upon recommendation by the Purchasing Director.

The CFO has the authority to initiate revisions to these procedures.

The Purchasing Director has the authority to ensure that these procedures are regularly reviewed, updated, and consistent with other governance policies.

Compliance with these Procedures

The following roles are designated at each department to implement compliance monitoring for these Procedures:

The CFO is accountable for reviewing the administration of these Procedures.

Noncompliance with these Procedures

Noncompliance with these Procedures is handled in accordance with all applicable Human Resources policies on disciplinary and separation matters.

Chapter 4: Micro Purchases

2 CFR 200.320(a): *CFR states: Procurement by micro-purchases. Procurement by micro-purchase is the acquisition of supplies or services, the aggregate dollar amount of which does not exceed the micro-purchase threshold (§200.67 Micro-purchase). To the extent practicable, the non-Federal entity must distribute micro-purchases equitably among qualified suppliers. Micro-purchases may be awarded without soliciting competitive quotations if the non-Federal entity considers the price to be reasonable.*

Micro-Purchase (2 CFR 200.67): means a purchase of supplies or services using simplified acquisition procedures, the aggregate amount of which does not exceed the micro-purchase threshold. Micro-purchase procedures comprise a subset of a non-Federal entity's small purchase procedures. The non-Federal entity uses such procedures in order to expedite the completion of its lowest-dollar small purchase transactions and minimize the associated administrative burden and cost. The micro-purchase threshold is set by the Federal Acquisition Regulation at 48 CFR Subpart 2.1 (Definitions). It is \$3,000 except as otherwise discussed in Subpart 2.1 of that regulation, but this threshold is periodically adjusted for inflation.

The SWBNO does not utilize micro purchases for any procurements. All procurements which meet the federal definition of a micro purchase will be treated as either a public voucher or a small purchase. See PRO-03 for procedures on the use of public vouchers (PV).

Note: *These procurement requirements are more restrictive than 2 CFR 200.320(a) and 2 CFR 200.67.*

Step-by-Step Procedures

Refer to the small purchase procedures for Micro Purchase execution.

Chapter 5: Small Purchases

2 CFR 200.320 Procurement by small purchase procedures: *Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other property that do not cost more than the Simplified Acquisition Threshold. If small purchase procedures are used, price or rate quotations must be obtained from an adequate number of qualified sources.*

Construction: Small purchases, also known as Informal Bids of construction related projects include all construction bids valued up to \$10,000 as set by Louisiana Revised Statute §33:4085. These procurements require the SWBNO to make efforts to reach out to qualified suppliers and obtain at least three (3) quotes. The SWBNO strongly encourages DBE participation for all construction projects and User Departments must obtain at least one quote from a DBE firm with every Small Purchase/Informal Bid released. All construction bids valued above \$10,000 require qualified Disadvantaged Business Enterprise (DBE) participation through the Economically Disadvantaged Business Program (EDBP) at the SWBNO. Before bids are solicited, the Purchasing Department will provide the *Informal Bid and Independent Cost Estimate Forms* to the User Department for completion. The User Department must complete and submit the forms to Purchasing, along with all the required supporting documentation. Prior to procurement, the purchase must be authorized by the Senior Executive of the requesting User Department; and the Purchasing Department must check the winning bidder's debarment status and determine if there are any conflicts of interest.

Goods, Non-Professional Services and Materials: Small purchases of goods, non-professional services and materials include procurements valued under \$30,000. These procurements must be made utilizing the informal bid process described in Section 4(b) which requires the SWBNO to make efforts to reach out to qualified suppliers and obtaining at least three (3) quotes. The SWBNO strongly encourages DBE participation for all goods, non-professional services and materials procurements and must obtain at least one quote from a DBE firm. Before bids are solicited, the Purchasing Department will provide the *Informal Bid and Independent Cost Estimate Forms* to the User Department for completion. The User Department must complete and submit the forms to Purchasing, along with all the required supporting documentation. Prior to procurement, the purchase must be authorized by the Senior Executive of the requesting User Department; and the Purchasing Department must check the winning bidder's debarment status and determine if there are any conflicts of interest.

Professional Services: Small purchases of professional services include procurements valued up to \$15,000. For all small purchases of professional services, the Purchasing Department requires the requesting User Department to make efforts to reach out to qualified entities to obtain up to three (3) proposals.

The SWBNO strongly encourages DBE participation for all professional services procurement and DBE preference is given for small purchases of professional services. Purchasing will provide the *Small-Purchase Professional Services and Independent Cost Estimate Forms* to the requesting User Department for completion. The User Department must complete and submit the form to Purchasing, along with all the required supporting documentation. Prior to procurement, the purchase must be authorized by the Senior Executive of the requesting User Department; and the Purchasing Department must determine whether the services being sought constitute professional services, check the winning bidder's debarment status, and determine if there are any conflicts of interest.

Note: *These procurement requirements are more restrictive than 2 CFR 200.320*

Step-by-Step Procedures

1. For Pre-solicitation, the User Department is responsible for completing the Informal Bid Form for each item being informally bid.
2. For informal bids for construction projects below \$10,000:
 - a. Once the determination is made by a User Department that an informal procurement for a construction project (up to \$10,000), or for goods, non-professional services and materials (up to \$30,000), is needed, the User Department must present a draft scope to the Senior Executive for review. Once the Senior Executive has reviewed, the scope is sent to the Construction Review Committee (CRC) for review.
 - b. The CRC completes the review of the scope of the proposed solicitation which includes the DBE requirement for the procurement. The CRC's DBE requirement is final.
 - c. Once the CRC has recommended the DBE requirement, the CRC report, which includes the EDBP report, is submitted to the Finance and Administration Committee of the Sewerage and Water Board.
 - d. For each Finance and Administrative Committee meeting there is an agenda which outlines all items which are reviewed in the meeting including reports from subcommittees such as the CRC report. After the Finance and Administrative Committee meets the agendas are submitted to the Sewerage and Water Board for approval.
3. For construction projects under \$10,000 and goods, non-professional services, and materials under \$30,000, submission to the CRC is not required.

4. The User Department must provide a completed ICE Form and engineering estimate when applicable with the Informal Bid Quote Form submitted to Purchasing for review. Additionally, the User Department shall submit the below supporting documentation:
 - a. The User Department must either:
 - i. Provide a general scope of work that is sufficient to allow Purchasing to obtain three (3) quotes on their behalf or
 - ii. Must provide three (3) quotes to Purchasing using the Informal Bid Quote Form
 1. The three (3) written quotes shall be on the vendor's letterhead.
 - a. Quotes must include the commodity and quantity.
 - b. One of the three quotes obtained must be from a qualified DBE firm.
 - c. If a User Department or Purchasing is unable to obtain a quote from a DBE firm, then it must provide a written justification for the file.
 - d. If a vendor provides a "no bid" that is sufficient as one of the quotes.
 - b. For goods, non-professional services and materials the User Department must also complete the following:
 - i. A Requisition Form which includes the commodity code for the vendors. The Requisition Form is signed off by the Chief Administrator and Senior Executive of User Department.
5. Purchasing staff reviews the Informal Bid Form and supporting documentation (the informal bid package) to ensure all required documentation is provided by the User Department.
 - a. If during review, one of the vendors is proposing a substitute material, the User Department must be consulted.
6. Purchasing staff completes a debarment check on all bidders.
7. The User Department selects the lowest qualified and responsible bidder by use of a bid tabulation and completes the Informal Bid Cover Sheet.
8. For goods, materials and non-professional services procurements under \$30,000:
 - a. Purchasing will use the Purchase Order (PO) which has a start and finish term outlined as well as a deliverable due date
 - b. Once the PO is completed and serves as the contracting mechanism:
 - i. Copies are sent to the User Department, accounts payable and the vendor.

PROCUREMENT PROCEDURES MANUAL

1. The “gold” copy is sent to the User Department.
 2. The “green” copy is sent to accounts payable once the User Department has received the goods, materials, or services.
9. Purchasing maintains the procurement records.

Chapter 6: Formal Sealed Bids

2 CFR 200.320 Procurement by sealed bids (formal advertising): Procurement by sealed bids (formal advertising). Bids are publicly solicited, and a firm fixed price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bid method is the preferred method for procuring construction, if the conditions in paragraph (c)(1) of this section apply.

(1) In order for sealed bidding to be feasible, the following conditions should be present:

- (i) A complete, adequate, and realistic specification or purchase description is available;
- (ii) Two or more responsible bidders are willing and able to compete effectively for the business; and
- (iii) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.

(2) If sealed bids are used, the following requirements apply:

- (i) Bids must be solicited from an adequate number of known suppliers, providing them sufficient response time prior to the date set for opening the bids, for local, and tribal governments, the invitation for bids must be publicly advertised;
- (ii) The invitation for bids, which will include any specifications and pertinent attachments, must define the items or services in order for the bidder to properly respond;
- (iii) All bids will be opened at the time and place prescribed in the invitation for bids, and for local and tribal governments, the bids must be opened publicly;
- (iv) A firm fixed price contract award will be made in writing to the lowest responsive and responsible bidder. Where specified in bidding documents, factors such as discounts, transportation cost, and life cycle costs must be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and
- (v) Any or all bids may be rejected if there is a sound documented reason.

Construction: For all construction bids over \$10,000, Purchasing follows the procedures outlined in Section 4(c) of this manual in accordance with Louisiana Revised Statute §33:4085. All requesting departments must complete the Contract Data Form and include all bid documents required by Purchasing, including, but not limited, to Architectural and Engineering documents and specifications. A formal list of all required front-end documentation is provided with the Contract Data Form Upon receipt and review of all required documentation, Purchasing shall commence the formal bid process. All Construction bids over \$10,000 must comply with qualified DBE participation requirements.

Goods and Materials: For all bids for goods and materials valued above \$30,000, the SWBNO utilizes a competitive bidding procurement process. Purchasing provides the User Department with the *Bid Procurement Authorization Form* and a list of the required back up documentation. The requesting departments are required to complete the specification and submit to Purchasing along with all required back-up documentation. Upon receipt and review of all required documentation, Purchasing shall commence the competitive bidding process described in Section 4(d). All bids for goods, non-professional services, and materials over \$30,000 must comply with qualified DBE participation requirements.

Professional Services: Professional Services valued over \$15,000 are procured through the Competitive Proposals policy and procedures outlined in section 4(d).

Step-by-Step Procedures

1. Once the determination is made by a User Department that procurement for a construction project over the Louisiana Revised Statute §33:4085 threshold of \$10,000, or for goods, non-professional services and materials over \$30,000 is needed, the User Department must present a draft scope to the Construction Review Committee (CRC) for review.
 - a. The CRC completes the review of the scope of the proposed solicitation which includes the DBE requirement for the procurement. The CRC's DBE requirement is final.
 - b. Once the CRC has recommended the DBE requirement, the CRC report, which includes the EDBP report, is submitted to the Finance and Administration Committee of the Sewerage and Water Board.
 - c. For each Finance and Administrative Committee meeting there is an agenda which outlines all items which are reviewed in the meeting including reports from subcommittees such as the CRC report. After the Finance and Administrative Committee meets the agendas are submitted to the Sewerage and Water Board for approval.
2. As part of the pre-solicitation process, the User Department completes the appropriate Bid Procurement Authorization Form for the item being procured. Purchasing will provide the forms for all required front end documents to the requesting departments.

3. The User Department must complete all required forms and begin the routing process. All bids are required to be signed off on by the following departments:
 - a. Budget
 - b. Finance
 - c. EDBP
 - d. Safety/Risk Management
 - e. Internal Audit
 - f. Legal Department
 - g. General Superintendent or Senior Executive
 - h. Executive Director
 - i. User Department Head
4. Once the routing form is completed, the User Department may submit the bid package along with the *Bid Procurement Authorization Form* to Purchasing. Failure to use the forms provided by Purchasing shall result in rejecting the proposed procurement and returning to the User Department for corrections. The applicable *Bid Procurement Authorization Form* must be signed by the User Department head.
5. The formal bid package which includes, but is not limited to, the following documents:
 - a. Procurement Requirements
 - i. Advertisement for Bids
 - ii. Instruction to Bidders
 - iii. Louisiana Uniform Public Work Bid Form
 - iv. Voluntary Extension of the Award of Contract
 - v. Bid Bond
 - vi. Affidavit of Non-collusion
 - vii. Disadvantaged Business Enterprise Program
 - viii. Economically Disadvantaged Business Participation Summary sheet

b. Contract Requirements

- i. Contract Agreement
- ii. Performance Bond Form
- iii. General Terms and Conditions for Contracts with the SWBNO
- iv. Supplementary Conditions
 - 1. S&WB Drug -Free Work Place Policy – Contractor Requirements
 - 2. S&WB Safety Orientation Notice
 - 3. Wage Rate Decision Form
 - 4. S&WB Storm Water Pollution Prevention Plan
 - 5. S&WB Electrical Safety Clearance Procedures
- c. Specifications
- d. Drawings
- e. Completed ICE Form
- f. Engineering Estimate
- g. Contract Data Form

- 6. The Purchasing staff assigned to the procurement reviews the package completed by the User Department. The User Department completes the Invitation to Bid Form sections as applicable and assigns a contract number to the procurement.
- 7. The Purchasing Director performs a fiscal review and authorization of the bid.
- 8. Once the bid is authorized, Purchasing then prepares the authorized bid package for advertisement.
- 9. Goods, non-professional services and materials are advertised at least three (3) times in the Official Journal (newspaper) of Record within a ten (10) day period, appearing at least fifteen (15) days before the bid opening date. In addition to a newspaper advertisement, SWBNO may also publish via the SWBNO website to the general public.
- 10. Construction projects must be advertised in the Official Journal (newspaper) of Record once a week for three (3) different weeks at least twenty-five (25) days before the bid opening date. The advertisement should include detailed plans and specifications approved by the board on file in the office of the board to be furnished to prospective bidders on application and indicate where and when bids will be received and opened. In addition to a newspaper advertisement, SWBNO may also publish via the SWBNO website to the general public.
- 11. The Purchasing Department shall host all pre-bid conferences. All pre-bid conferences are held after the last advertisement date. If DBE participation is required, then the pre-bid conference is mandatory for potential bidders. If there is not a DBE requirement then required attendance at the pre-bid conference is not mandatory as determined by the User Department,
- 12. Purchasing may issue any addenda up to seven (7) days prior to the bid opening without having to change the opening date.

13. All addenda must be issued seven (7) days prior to the bid opening.
14. Purchasing may receive formal sealed bids via the following mechanisms:
 - a. Delivered in person to the SWBNO.
 - b. Delivered via US Mail service (USPS, UPS, FedEx, etc.). Submission date shall be deemed the date received by Purchasing.
15. The opening of bids occurs at the Purchasing Office on the date and time identified in the formal bid package. Purchasing identifies and notifies the two apparent lowest responsible bidders at the bid opening.
16. Purchasing may reject bids for the following reasons:
 - a. Bid is turned in after the date and time noted in the Invitation to Bid.
 - b. The bidder failed to provide a copy of their contractor's license on the outside of the sealed bid.
 - c. The bidder failed to provide a bid bond.
17. Purchasing will document the procurement file if the bid is rejected and notify bidder of reason for rejection.
 - a. Procurement must provide the disqualified bidder an opportunity for a hearing within 5 days of the notice of disqualification and prior to award of contract
 - b. A written ruling must be sent within 5 days of the hearing.
18. User Department completes and submits the bid tabulation to Purchasing.
19. EDBP reviews the bids and determines if the bidders are responsive to the DBE requirements.
 - a. Within three days of the bid opening, the two apparent lowest bidders must submit the required DBE participation documentation and any other post-bid documentation expressly required in the Invitation to Bid and or bid specifications.
 - b. EDBP advises Purchasing and User Department of result.
20. Once the lowest responsive bidder has been determined, the User Department conducts the technical review.
21. Purchasing then completes responsibility review, and will verify the bidder's debarment status, using sam.gov and verify that there are no conflicts of interest.
22. Purchasing advises User Department of result.

23. Upon completion of the responsibility and technical check(s), the User Department shall submit an inter-office memorandum to the General Superintendent recommending either to rebid or to award the contract.
24. The inter-office memorandum also includes the bid tabulation sheet. A copy of the inter-office memorandum is sent to the Purchasing and Engineering Department.
25. If the contract is over \$1 million dollars, during the next scheduled SWBNO Board meeting, the Board will vote on whether or not to ratify the entire Superintendent's Report.
26. The User Department is then responsible for working with the Legal Department, Purchasing Department and the vendor to negotiate the contract.
27. Once all material terms have been negotiated, the contract is drafted.
 - a. If the contract aggregate is over \$1 million dollars, the contract is drafted by outside counsel and requires the Mayor of New Orleans' signature. To complete the approval process, the following steps must occur:
 - i. After outside counsel has drafted the contract, it is approved by the Legal Department and sent to the Executive Director for review.
 - ii. After the Executive Director has reviewed the contract, it is sent to the Mayor's office to be signed.
 - iii. After the contract is signed by the mayor, it is delivered to the Purchasing and then will be included in the Superintendent's Report to the Board.
 - b. If the contract is under \$1 million dollars, the contract is drafted by the Legal Department and requires the Executive Director's signature.
 - i. After the contract has been signed by the Executive Director, it will be included in the Purchasing Department's Procurement Report.
 - ii. During the next SWBNO Board meeting, the Board will vote on whether to ratify the entire Purchasing Department Procurement Report.
28. Once the signed original contract is returned, the Purchasing staff prepares the contract package, and ensures that all insurance and risk management documents are in place.
29. Once all documents are in place, the Purchasing Director notifies the User Department. The Purchasing Department issues a Notice to Proceed to the vendor.

30. Purchasing shall maintain all formal procurement records.

Chapter 7: Procurement by Competitive Proposals

2 CFR 200.320: *The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids. If this method is used, the following requirements apply:*

- (1) Requests for proposals must be publicized and identify all evaluation factors and their relative importance. Any response to publicized requests for proposals must be considered to the maximum extent practical;*
- (2) Proposals must be solicited from an adequate number of qualified sources;*
- (3) The Non-Federal entity must have a written method for conducting technical evaluations of the proposals received and for selecting recipients;*
- (4) Contracts must be awarded to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered; and*
- (5) The Non-Federal entity may use competitive proposal procedures for qualifications-based procurement of telecommunications or data processing equipment, architectural/engineering (A/E) professional services whereby competitors' qualifications are evaluated, and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation.*

Construction: Procurement of construction projects is outlined in the Small Purchases, and Formal Sealed Bid sections above.

Goods and Materials: Procurement of goods and materials are outlined in the Small Purchases and Formal Sealed Bid sections above.

Non-Professional Services – Non-professional services are procured in the same manner as Professional Services using the Competitive Proposals method, or in a sealed bid as outlined above in Section 4(c).

Professional Services: Professional services over \$15,000 are procured through a Request for Qualifications (RFQ) and/or Request for Proposals (RFP). All requesting departments must use standard

RFP and RFQ templates provided by the Purchasing Department. The requesting User Department must work with Purchasing to draft an RFP or RFQ that contains a clear description of the services to be performed, the criteria for evaluation, and the scoring weight attached to each item. Upon review and receipt of the required documents, the Purchasing Department shall commence the competitive proposal procedures described in Section 4(d). All professional services valued above \$15,000 must comply with DBE participation requirements.

Step-by-Step Procedures

1. As part of the Pre-Solicitation process, and to initiate the procurement by competitive proposals, the User Department must submit the *Request for Professional Services Form* to Purchasing, along with the following documents:
 - a. Completed scope for the RFQ or RFP on the required Purchasing-approved template.
 - b. All evaluation criteria with their respective weights (DBE must represent at least 10% of the weighted criteria for solicitations where Staff Contract Review Committee (SCRC) has established minimum goals).
 - c. Insurance requirements from the Office of Risk Management.
 - d. Budgetary Estimate
 - e. Completed ICE Form
2. Purchasing shall reject and return any User Department documentation not submitted in the required template(s).
3. Purchasing shall complete all other required parts of the RFQ/RFP template, including, but not limited to:
 - a. Standardized disclosure forms for respondents to identify any possible conflicts of interest.
 - b. Secondary disclosure forms for respondents to identify any proposed subcontractors.
4. Purchasing shall complete a fiscal review including the budgetary estimate and a review of the ICE Form.
5. The proposal scope shall be sent to the SCRC to ensure that proper DBE requirements have been met.
6. Once the SCRC has recommended the DBE requirement, the SCRC report, which includes the EDBP report, is submitted to the Finance and Administration Committee of the Sewerage and Water Board.

7. For each Finance and Administrative Committee meeting there is an agenda which outlines all items which are reviewed in the meeting including reports from subcommittees such as the SCRC report. After the Finance and Administrative Committee meets the agendas are submitted to the Sewerage and Water Board for approval.
8. Upon final authorization, Purchasing shall release the RFQ or RFP for advertisement. All RFQs and RFPs must be advertised for a minimum of two (2) consecutive weeks and advertised via SWBNO's website and in the twice in the Official Journal of the SWBNO.
9. For RFQs, the process is designed to maximize the number of qualified firms able to compete for the project.
10. For RFPs, the goal is to obtain at least three proposals from qualified contractors.
11. The Purchasing Director shall establish a Selection Committee with relevant subject matter experts. The committee must consist of the following individuals consisting of:
 - a. The General Superintendent/Senior Executive or their designee
 - b. The EDBP Director of their designee
 - c. SWBNO employee who will manage and monitor the contract;
 - d. An expert (employee or non-employee) in the relevant field, as determined by the Executive Director.
 - e. The CFO or their designee
12. The SWBNO Executive Director must approve the Selection Committee.
13. Once the Selection Committee is approved, Purchasing has an initial meeting with the committee to review the process and address the below items:
 - a. Proposals received
 - b. Review of the RFP/RFQ that was released
 - c. Review of the scoring sheet that will be used

- d. Review and execution of the three forms:
 - i. Conflict of Interest
 - ii. Confidentially form
 - iii. Acknowledgement form
 - e. Cover letter explaining the process lists proposals and the details of the project.
14. All meetings of the Selection Committee shall be open to the public and conducted in accordance with Louisiana Open Meetings Law.
 15. The EDBP designee will only score the DBE portion of the proposal.
 16. Any vendor performance evaluation form(s) from previous SWBNO contract(s) with any respondents shall be sent in advance to the selection committee members.
 17. The Selection Committee shall first review the technical proposal and provide a rating accordingly
 18. Upon completion of the technical proposal review, the Selection Committee shall open and review the separate price proposals.
 19. The Selection Committee shall then take the proposal rating and proposed price into consideration to determine which proposal provides the best value to the SWBNO.
 20. If the Selection Committee determines that the lowest priced proposal does not provide the best value to the SWBNO, the Committee shall explain the reason(s) for its decision in writing.
*Note: Engineering Department will not bid professional services.
 21. Purchasing shall then provide all proposers (selected and not selected) with written notification as to whether they were selected.
 22. Upon selection by the Selection Committee, any firms on a pre-qualified list will be notified and any firm selected for a specific project (whether from a pre-qualified list or a project specific RFQ) will be notified. The User Department shall begin the contracting process with any respondent selected for a specific project.
 23. If the contract is over \$1 million dollars, during the next scheduled SWBNO Board meeting, the Board will vote on whether or not to ratify the entire Superintendent's Report.
 24. The User Department is then responsible for working with the Legal Department, Purchasing Department and the vendor to negotiate the contract.

25. Once all material terms have been negotiated, the contract is drafted.
 - a. If the contract aggregate is over \$1 million dollars, the contract is drafted by outside counsel and requires the Mayor of New Orleans' signature. To complete the approval process, the following steps must occur:
 - i. After outside counsel has drafted the contract, it is approved by the Legal Department and sent to the Executive Director for review.
 - ii. After the Executive Director has reviewed the contract, it is sent to the Mayor's office to be signed.
 - iii. After the contract is signed by the mayor, it is delivered to the Purchasing and then will be included in the Superintendent's Report to the Board.
 - b. If the contract is under \$1 million dollars, the contract is drafted by the Legal Department and requires the Executive Director's signature.
 - i. After the contract has been signed by the Executive Director, it will be included in the Purchasing Department's Report.
 - ii. During the next SWBNO Board meeting, the Board will vote on whether to ratify the entire Purchasing Department Report.
26. Once the original is returned from the City of New Orleans or the Executive Director, then the Purchasing Department Staff is required to check to ensure all insurance and risk management documents are in place.
27. Once all documents are in place, the Purchasing Director issues a Notice to Proceed.
28. Purchasing shall maintain all formal procurement records.

Chapter 8: Unique and Non-Competitive (Sole-Source)

2 CFR 200.320: *Procurement by noncompetitive proposals. Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one source and may be used only when one or more of the following circumstances apply:*

- (1) The item is available only from a single source;*
- (2) The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;*
- (3) The Federal awarding agency or pass-through entity expressly authorizes noncompetitive proposals in response to a written request from the non-Federal entity; or*
- (4) After solicitation of a number of sources, competition is determined inadequate.*

Construction: Louisiana Revised Statute §33:4085 specific to the Sewerage and Water Board construction contractors requires that all contract work exceeding \$10,000 must be procured via a competitive bid process and awarded to the lowest responsive and responsible bidder. SWBNO must advertise at least six notices during a fifteen-day period calling for bidders, in the official journal of the city of New Orleans, on detailed plans and specifications approved by the board on file in the office of the board to be furnished to prospective bidders on the application.

Goods, Non-Professional Services, and Materials: Upon demonstrating that the procurement of goods, non-professional services and materials are not amenable to competitive procurement, and that unique and non-competitive procurement of goods is in the best interest of the SWBNO, the User Department shall submit the *Bid Procurement Authorization Form* and all additional required documents to Purchasing. Upon review and receipt of all required documents, Purchasing shall commence the unique and non-competitive procurement process described in Section 4(e).

Professional Services: Professional services over \$15,000 must be procured through an RFQ and/or RFQ in accordance to the competitive proposal procedures described in Section 4(d). The SWBNO shall ensure that the solicitations provide a clear description of the work being performed and all contractor requirements to ensure that all vendors have adequate information to submit responses. If Purchasing receives an inadequate number or proposals, the Purchasing Director may determine whether to extend the deadline or cancel the RFP and revise or resolicit in an attempt to gather additional responses. If additional responses are received, Purchasing shall proceed with the competitive proposal procedures described in Section 4(d). If after numerous attempts, the SWBNO fails to receive additional responses, Purchasing shall determine whether to initiate the single proposal review procedures described in Section 4(e).

Step-by-Step Procedures

1. As part of the solicitation process, the User Department must request non-competitive procurement of good, non-professional service, or material from the Purchasing Department.
2. The requesting department's request must include the following:
 - a. Completed *Bid Procurement Authorization Form*
 - i. The type of request: Other must be selected
 - b. Letter from the department head requesting the non-competitive procurement that explains why the procurement is not amenable to competitive procurement and value to the SWBNO of such a procurement.
 - c. Letter from the vendor describing the service, material, or good to be provided.
 - d. Completed ICE Form.
3. The Purchasing Department shall review all required documentation and the Purchasing Director shall approve or deny non-competitive procurement in his or her sole discretion
4. Upon approval of non-competitive procurement, the User Department shall either begin the contracting process, or if permitted to proceed solely with a purchase order.
 - a. For goods and services contracts over \$30,000, a contract must be used.

5. The Purchasing Department will use the Purchase Order (PO) which has a start and finish term outlined as well as a deliverable due date
 - a. Once the PO is completed and serves as the contracting mechanism:
 - i. Copies are sent to the User Department, accounts payable and the vendor.
 1. The “gold” copy is sent to the User Department.
 2. The “green” copy is sent to accounts payable once the User Department has received the goods, materials, or services
6. Purchasing shall maintain the procurement records.

Chapter 9: Emergency Procurement Procedures

For State-declared extreme emergencies, the SWBNO follows procurement procedures which adhere to the tenets of competitive procurement to the extent practicable, while ensuring that the SWBNO maintains the flexibility it needs to meet the needs of the emergency.

Declared Emergencies defined within the Louisiana Homeland Security and Emergency Assistance and Disaster Act La. R.S. 29:721 et.seq and La.R.S. 38:221(A)(5)(a) confers upon the Mayor of the City of New Orleans emergency powers to deal with emergencies and disasters of unprecedented size and destructiveness resulting from terrorist events, enemy attack, sabotage, or other hostile action or from fires, flood, earthquake or other natural or manmade causes.

1. On an annual basis, Purchasing works with User Departments to complete a solicitation for those anticipated needs during an emergency. All procurements will follow the steps outlined in this procedure manual including completing an ICE and cost reasonableness analysis.
2. Normal procurement procedures outlined in this manual shall continue during emergencies subject to the below exception:
 - a. Departments should follow normal competitive procurement unless it can demonstrate that a competitive market does not exist, or extreme urgency exists.
3. DBE requirements are encouraged but not required during periods of declared emergencies.
4. In the event of extreme emergencies, the SWBNO executive director or general superintendent, with the written consent of the president pro tempore or the mayor of the City, may purchase the necessary machinery, equipment, materials and supplies to make all necessary emergency repairs and replacements without the formality of advertising for bids in accordance with RS 33:4084.

Any purchases made related to the declared emergency that circumvent any of the procedures outlined herein will not be considered reimbursable and the department agency or board responsible for the purchase will bear full financial responsibility from its yearly appropriation.

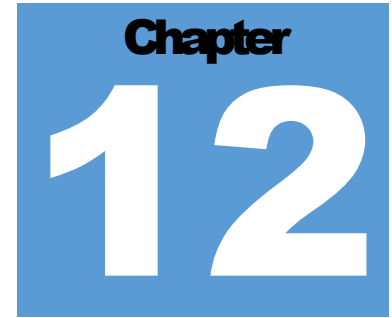
Chapter 10: Non-Responsive or Not Responsible Respondents

1. If a respondent is determined to be non-responsive or not responsible, Purchasing sends a written letter to the agency stating the reasons for determination.
2. For Formal sealed bids, Purchasing will only send a request for responsibility documentation letter for the two lowest bids.
3. The Purchasing staff ensures that copies of Responsive/Responsibility letters are located in purchasing's procurement file.

Chapter 11: Procurement Protest Procedures

1. Actual or prospective bidders and respondents capable of submitting responsive and responsible bids or proposals may protest of the form of solicitation, the content of the solicitation itself, including but not limited to the conditions, specifications and/or requirements, or the selection.
2. Selection protests may only be filed by actual bidders or respondents who would then be selected if the protest is successful.
3. All protests regarding the type of solicitation or content of the solicitation must be filed no later than seventy-two (72) hours prior to the bid or proposal submission deadline. Failure to timely file such a protest shall constitute a waiver of all rights to challenge the type of solicitation or content of the solicitation.
4. All protests must be filed in writing and submitted to the Purchasing Department via e-mail, facsimile, mail or hand delivery.
5. All protests must include the following, at a minimum:
 - a. Identification of the solicitation at issue including any solicitation number;
 - b. The protestor's name, address, fax and telephone numbers, and e-mail address;
 - c. A description of the protestor's standing to submit the protest;
 - d. A clear and detailed statement of all legal and factual grounds for the protest, including appropriate references to the specific section of any materials
 - e. A selection protest shall not include explanation or advocacy of any grounds for protesting the type of solicitation or content of the solicitation;
 - f. All documents, with an index, that the protestor believes necessary to assess the legal or factual basis of the protest; and

- g. A statement of the specific relief requested.
- 6. Protests that fail to meet any of the above requirements may be rejected. The SWBNO shall not consider any grounds for a protest not expressly included in the protest filings.
- 7. The Purchasing Director shall then send the protest to the User Department for review.
- 8. The User Department will provide a written response to the protest, which shall be sent to the Purchasing Department.
- 9. The Purchasing Department shall then send the response to the protesting bidder.
- 10. The protesting bidder must provide a written response within two (2) working days, indicating that they wish to continue their protest. If a response is not received within two (2) working days, it shall be determined that the protesting bidder no longer wishes to continue their protest.
- 11. If the protestor indicates a desire to continue, a hearing officer is assigned to review the case.
- 12. The hearing officer promptly reviews and resolve all protests solely upon the basis of the written protest, the solicitation, selected person's response (if applicable) and any SWBNO-department responses.
- 13. Once the hearing officer has made a determination, it is sent to the Legal Department for its review.
- 14. After reviewing the hearing officer's determination, the Legal Department forwards the hearing officer's review to the Executive Director for their review.
- 15. Once the Executive Director provides an approval or disapproval, and it is sent to the Purchasing Department, which forwards the notice to the protestor.



Chapter 12: Change Orders

Change orders are issued for construction, goods, materials, and non-professional services that are procured through a sealed bid process.

- Change order procedures must be followed when there are changes to time, materials, quantity or scope that impact the project.
- If a contractor determines a change is necessary during the course of work, they must notify the responsible Sewerage and Water Board Project Manager within 7 days of identification of the related change and prior to completing the work.
- Change orders cannot be used for informal bids or contract amendments.

Change order procedures can only be initiated by the SWBNO User Department Project Manager who is supervising the project.

*Note: A Field Consultant that receives a change order request from a contractor must submit the request to the SWBNO Project Manager who is supervising the project. **A Field Consultant is not authorized to approve a change order.***

There are three tiers of change orders, determined by the cost of the requested change related to the overall contract amount. All change orders must begin with an initial review and approval from the Change Order Review Board. Within the three tiers, a change order can be considered a standard request or an emergency request, each requiring backup documentation as detailed below to justify the request and level of urgency.

1. **Tier One:** Requested change orders under 5% in aggregate of the original contract value or under \$50,000 in aggregate are initiated by review and approval from the Change Order Review Board, and after review by the Budget and Finance Department and Purchasing are approved by the Executive Director or designee.
2. **Tier Two:** Requested change orders between 5 - 10% in aggregate of the original contract value or between \$50,0001 and \$99,999 in aggregate must be presented first to the Contract Review Board

and to the Budget and Finance Department, User Department, and Purchasing for review and approval of the amendments. The Executive Director or designee has signing authority after the second visit to the Contract Review Board.

3. **Tier Three:** Requested change orders that are 10% or greater in aggregate of the original contract value or \$100,000 or greater in aggregate must be presented first to the Contract Review Board and to the Budget and Finance Department, User Department, and Purchasing for review and approval of the amendments. The change order must be presented to the Contract Review Board once ready for final review and prior to submission to the SWBNO Board. The Executive Director must sign for final execution.

Change orders **cannot** be broken down into multiple requests to circumvent the tiered review process. All work pertaining to the change order request must be included in one change order.

Change Order Tier Overview

Change Order	Cost Justification	Required Reviewers (in order)	Signature Approval
Tier One	Under 5% in aggregate of the original contract value or under \$50,000 in aggregate	1.User Department 2.Contract Review Board 3.Budget and Finance Department 4.Purchasing	Executive Director, or designee
Tier Two	Between 5% - 10% in aggregate of the original contract value or between \$50,0001 and \$99,999 in aggregate	1.User Department 2.Contract Review Board 3.Budget and Finance Department 4.Purchasing 5.Contract Review Board	Executive Director, or designee
Tier Three	10% or greater in aggregate of the original contract value or \$100,000 or greater in aggregate	1.User Department 2.Contract Review Board 3.Budget and Finance Department 4.Purchasing 5.Contract Review Board 6.SWBNO Board	Executive Director

Step by Step Standard Change Order Procedures

1. The proposed change (scope and/or time) is provided by the contractor or Field Consultant to the SWBNO Project Manager. **Cost should not be included at this time.**
 - a. The Project Manager completes an ICE and submits the request to the Purchasing Department who then evaluates the level of need and reviews the scope.
 - i. **Standard:** A requested change within the terms and scope of the original contract.
2. The Purchasing Department submits the scope of the change order and an ICE to the Contract Review Board.
 - a. If the Contract Review Board does not approve the change order to move forward the Project Manager must return to the contractor to reassess the need.
3. If the Contract Review Board approves the change order to move forward the Project Manager completes the *Change Order Recommendation Form*, documents and justifies the request, and confirms it is within the scope of the original contract.
 - a. **Standard:** The Project Manager determines if the scope requires a labor wage rate change. Once the cost estimate is complete, the Project Manager requests the full change order with cost from the contractor.
4. The Project Manager completes the Cost Analysis Form to determine cost reasonableness. The cost should be within 15% of the ICE to be considered reasonable. Variation (high or low) from the 15% threshold requires additional justification from the requesting contractor to support the costs as reasonable.
5. Once the cost analysis is complete, the Project Manager determines what tier the change order falls within and submits the request to the User Department to begin the approval process.
 - a. **Tier One:** Requested change orders under 5% in aggregate of the original contract value or under \$50,000 in aggregate.
 - b. **Tier Two:** Requested change orders between 5% - 10% in aggregate of the original contract value
 - c. **Tier Three:** Requested change orders 10% or greater in aggregate of the original contract value or \$100,000 or greater in aggregate.
6. Once the User Department head approves the change order, the Project Manager gathers the following documents, along with the *Change Order Recommendation Form*, and sends the complete package to Budget and Finance for review.
 - a. Change order request from the vendor, including the proposed cost

- b. ICE Form
 - c. Cost Analysis Form
 - d. Any additional supporting documentation necessary for the change order review
7. If the User Department head does not approve the change order, the Project Manager must go back to the contractor and discuss other options.
8. Budget and Finance provide verification that there are funds available for the change order and complete the identified portions of the *Change Order Recommendation Form*. Once Budget and Finance complete the form, the entire package is submitted to a contract administrator within Purchasing to confirm the change order is within the scope of the original contract.
- a. If there are not available funds, the incomplete *Change Order Recommendation Form* is sent back to the User Department for determination of next steps.
 - b. If the requested change is outside of the scope of the original contract, the *Change Order Recommendation Form* is sent back to the User Department and the work must be let out to bid.
9. After Budget and Finance and Purchasing approval is complete:
- a. **Tier One**
 - i. Executive Director or designee signs for final approval
 - ii. The approved *Change Order Recommendation Form* is sent back to Purchasing for processing.
 - iii. The User Department coordinates with Legal and the contractor to sign final contract documents.
 - iv. The User Department issues a Notice to Proceed and the change order is implemented.
 - b. **Tiers Two and Three**
 - i. Purchasing packages all approved *Change Order Recommendation Forms* and supporting documentation each week and shares an agenda and copies of proposed change orders with the Contract Review Board on Friday by 4:00pm.
 - ii. The Contract Review Board meets every Tuesday and consists of the following members: Executive Director, General Superintendent, Deputy General Superintendent, EDBP Director, Purchasing Director, Special Counsel, and the CFO.

- iii. During the Contract Review Board meetings, the Director of the User Department requesting the change order presents the recommendation and the department approvals to the Board. The Board either approves or makes further recommendations or changes to the procurement.
- iv. If the change order is not approved, the Board provides recommendations for corrections.

10. If the Contract Review Board recommends approval of the change order:

a. **Tier Two**

- i. The change order is processed as a modification to the contract.
- ii. Executive Director, or designee signs for final approval.
- iii. The approved *Change Order Recommendation Form* is sent back to Purchasing for processing.
- iv. The User Department coordinates with Legal and the contractor to sign final contract documents.
- v. The User Department issues a Notice to Proceed and the change order is implemented.

b. **Tier Three**

- i. Once the User Department has received the approval from the Contract Review Board, it is put into a resolution and sent to the Finance and Administrative subcommittee.
- ii. For each Finance and Administrative Committee meeting, there is an agenda which outlines all items which are reviewed in the meeting including Change Order recommendations. After the Finance and Administrative Committee meets and approves the recommendation, the agenda is placed in the Purchasing Department's Procurement Report and submitted to the Sewerage and Water Board of Directors (BOD) for approval, the BOD meeting the third Wednesday of the month.
- iii. During the BOD meeting, the Director of the User Department requesting the change order presents the recommendation and the department approvals to the Board. The Board either approves or make further recommendations or changes to the procurement.
- iv. If the change order is not approved, the Board provides recommendations for corrections.
- v. If the BOD recommends approval of the change order, it is processed as a contract amendment and the Executive Director signs for final approval.

- vi. The approved *Change Order Recommendation Form* is sent back to Purchasing for processing.

Chapter 13: Step-by-Step Emergency Change Order Procedures

1. The proposed change (scope and/or time) is provided by the contractor or Field Consultant to the Project Manager. **Cost should not be included at this time.**
 - a. First, the Project Manager evaluates the level of need
 - i. **Emergency:** work must be completed immediately to protect public health and safety
 - b. Using a *Change Order Recommendation Form*, the Project Manager documents and justifies the request and submits it to the Purchasing Department to confirm it is within the scope of the original contract
 - i. **Emergency:** The Project Manager informs the CFO, GSO, and Executive Director of the emergency and submits the *Change Order Recommendation Form* to Executive Director to sign for Conditional Approval.
2. The emergency change order request is submitted to the Contract Review Board. Upon their approval, a Notice to Proceed is issued.
3. Upon receipt of the Conditional Approval and the Notice to Proceed, work is allowed to commence (or continue) with the understanding that up to \$10,000 of the cost of the emergency change order is a covered expense, while the remaining cost is dependent on the ICE.
4. Within 24 hours of the emergency, the Project Manager completes the ICE. Once the ICE is complete, the Project Manager requests the full cost of the change order from the contractor.
5. Within 48 hours of the emergency, the Project Manager completes the Cost Analysis Form to determine cost reasonableness. The cost should be within 15% of the ICE to be considered reasonable. Variation (high or low) from the 15% threshold requires additional justification from the requesting contractor to support the costs as reasonable.

6. The Project Manager gathers the following documents, along with the *Change Order Recommendation Form*, and sends the complete package to Budget and Finance and Purchasing for review.
 - a. Change order request from the vendor, including the proposed cost
 - b. ICE Form
 - c. Cost Analysis Form
 - d. Any additional supporting documentation necessary for the change order review
7. After Budget and Finance and Purchasing approval is complete:
 - a. **Tier One**
 - i. Executive Director, or a designee, signs for final approval.
 - ii. The approved *Change Order Recommendation Form* is sent back to Purchasing for processing.
 - iii. The User Department coordinates with Legal and the contractor to sign final contract documents.
 - b. **Tiers Two and Three**
 - i. Purchasing packages all approved *Change Order Recommendation Forms* and supporting documentation each week and shares an agenda and copies of proposed change orders with the Contract Review Board on Friday by 4:00pm.
 - ii. The Contract Review Board meets every Tuesday and consists of the following members: Executive Director, General Superintendent, Deputy General Superintendent, EDBP Director, Purchasing Director, Special Counsel, and the CFO.
 - iii. During the Contract Review Board meetings, the Director of the User Department requesting the change order presents the recommendation, the nature of the emergency, and the department approvals to the Board. The Board either approves or makes further recommendations or changes to the procurement.
 - iv. If the change order is not approved, the Board provides recommendations for corrections.

8. If the Contract Review Board recommends approval of the change order:

a. **Tier Two**

- i. The change order is processed as a modification to the contract.
- ii. Executive Director, or the designee sign for final approval.
- iii. The approved *Change Order Recommendation Form* is sent back to Purchasing for processing.
- iv. The User Department coordinates with Legal and the contractor to sign final contract documents.

b. **Tier Three**

- i. Once the User Department has received the approval from the Contract Review Board, it is put into a resolution and sent to the Finance and Administrative Subcommittee.
- ii. For each Finance and Administrative Subcommittee meeting, there is an agenda which outlines all items which are reviewed in the meeting, including change order recommendations. After the Finance and Administrative Subcommittee meets and approves the recommendation, the agenda is placed in the Purchasing Department's Procurement Report and submitted to the SWBNO Board of Directors for approval.
- iii. Once the SWBNO Board of Directors has approved the board packet, the change order is ratified, and the change order is approved.
- iv. If the change order is not approved, the Board of Directors provides recommendations for corrections.
- v. If the Board of Directors recommends approval of the change order, it is returned to Purchasing for processing.
- vi. The User Department coordinates with Legal and the contractor to sign final contract documents.

Chapter 14: Contract Amendments

Formal contract amendments are used for Professional and Non-Professional Services that are procured through a competitive procurement process.

Contract Amendment Tier Overview

Contract Amendment	Cost Justification	Required Reviewers (in order)	Signature Approval
Tier One	Under 5% in aggregate of the original contract value or under \$50,000 in aggregate	1.User Department 2.Contract Review Board 3.Budget and Finance Department 4.Purchasing	Executive Director, or designee
Tier Two	Between 5% - 10% in aggregate of the original contract value or between \$50,0001 and \$99,999 in aggregate	1.User Department 2.Contract Review Board 3.Budget and Finance Department 4.Purchasing 5.Contract Review Board	Executive Director, or designee
Tier Three	10% or greater in aggregate of the original contract value or \$100,000 or greater in aggregate	1.User Department 2.Contract Review Board 3.Budget and Finance Department 4.Purchasing 5.Contract Review Board 6.SWBNO Board	Executive Director

Step-by-Step Procedures

1. The User Department's Contract Manager must identify the need for a contract amendment, which can include a change to cost, scope, quantity, or time. Amendments that include a budget change require an independent cost estimate (ICE) and cost reasonableness determination.
2. The User Department's Contract Manager requests the scope from the vendor without cost included. Based on the scope provided, the Contract Manager completes an ICE.
3. The requested Contract Amendment is presented to the Contract Review Board. If it is not approved the User Department Contract Manager must return to the vendor to reassess the need.
4. If approved, the Contract Manager requests the complete amendment, including costs, from the vendor.
5. The Contract Manager completes the Cost Analysis Form to determine cost reasonableness. The cost should be within 15% of the ICE to be considered reasonable. Variation (high or low) from the 15% threshold requires additional justification from the requesting contractor to support the costs as reasonable.
6. The Contract Manager gathers the following documents, along with the *Amendments to Contracts Form* and sends the complete package to Budget and Finance and Purchasing for review.
 - a. Amendment request from the vendor, including the proposed cost.
 - b. ICE Form
 - c. Cost Analysis Form
 - d. Any additional supporting documentation necessary for the change order review
7. Budget and Finance provide verification that there are funds available for the contract amendment and complete the identified portions of the *Amendments to Contracts Form*. Once Budget and Finance complete the form, the entire package is submitted to Purchasing to confirm the amendment is within the scope of the original contract.
 - a. If there are not available funds, the incomplete *Amendments to Contracts Form* is sent back to the User Department for determination of next steps.
 - b. If the requested amendment is outside of the scope of the original contract, the *Amendments to Contracts Form* is sent back to the User Department and the work must be re-procured.
8. Once the requested contract amendment is approved by Purchasing,
 - a. **Tier One:**

- i. The Executive Director, or a designee, signs for final approval.
 - ii. The approved Amendments to Contract Form is sent back to Purchasing for processing.
 - iii. The User Department coordinates with Legal and the contractor to sign final contract documents.
- b. **Tiers Two and Three:** The amendment must be presented to the Contract Review Board for the second time.
- i. Purchasing packages all approved Amendments to Contract Forms and supporting documentation each week and shares an agenda and copies of proposed change orders with the Contract Review Board on Friday by 4:00pm.
 - ii. The Contract Review Board meets every Tuesday and consists of the following members: Executive Director, General Superintendent, Deputy General Superintendent, EDBP Director, Purchasing Director, Special Counsel, and the CFO.
 - iii. During the Contract Review Board meetings, the Director of the User Department requesting the contract amendment presents the recommendation and the department approvals to the Board. The Board either approves or makes further recommendations or changes to the amendment.
 - iv. If the contract amendment is not approved, the Board provides recommendations for corrections.
9. If the Contract Review Board recommends approval of the contract amendment:
- a. **Tier Two**
 - i. The contract amendment is processed as a modification to the contract.
 - ii. Executive Director, or the designee sign for final approval.
 - iii. The approved *Amendments to Contracts Form* is sent back to Purchasing for processing.
 - iv. The User Department coordinates with Legal and the contractor to sign final contract documents.
 - b. **Tier Three**
 - i. Once the User Department has received the approval from the Contract Review Board, it is put into a resolution and sent to the Finance and Administrative Subcommittee.
 - ii. For each Finance and Administrative Subcommittee meeting, there is an agenda which outlines all items which are reviewed in the meeting, including contract amendment

recommendations. After the Finance and Administrative Subcommittee meets and approves the recommendation, the agenda is placed in the Purchasing Department's Procurement Report and submitted to the SWBNO Board of Directors for approval.

- iii. Once the SWBNO Board of Directors has approved the board packet, the contract is ratified, and the contract amendment is approved.
 - iv. If the contract amendment is not approved, the Board of Directors provides recommendations for corrections.
 - v. If the Board of Directors recommends approval of the contract amendment, it is returned to Purchasing for processing.
 - vi. The User Department coordinates with Legal and the contractor to sign final contract documents.
10. Once the amendment is executed, the User Department and Legal Department shall maintain copies of all contracts and contract amendments.

Chapter 15: Procurement Summary Charts

Construction Projects

Thresholds	Procurement Type	Advertisement Period	Signature Required
Under \$10,000	Informal Bid	No formal advertising, three (3) quotes including one DBE are required.	Deputy Director of Requesting User Department
Between \$10,000 and \$999,999	Formal Sealed Bid	six (6) notices during a fifteen-day (15) period calling for bidders, in the official journal of the city of New Orleans, on detailed plans and specifications approved by the board on file in the office of the board to be furnished to prospective bidders on the application.	Executive Director
Above 1,000,000	Formal Sealed Bid	six (6) notices during a fifteen-day (15) period calling for bidders, in the official journal of the city of New Orleans, on detailed plans and specifications approved by the board on file in the office of the board to be furnished to prospective bidders on the application.	Mayor

Goods, Non-Professional Services, and Materials

Thresholds	Procurement type	Advertisement Period	Signature Required
Under \$30,000	Informal Bid	No formal advertising, three (3) quotes including one DBE are required.	Deputy Director
Between \$30,000 and \$999,999	Formal Sealed Bid	A minimum of twenty-one (21) consecutive days and publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Executive Director
Above \$1,000,000	Formal Sealed Bid	A minimum of twenty-one (21) consecutive days and publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Mayor

Professional Services

Thresholds	Procurement type	Advertisement Period	Signature Required
Under \$15,000	Informal Proposals	No formal advertising, three (3) quotes are required.	Deputy Director
Between \$15,000 and \$999,999	Procurement by Competitive Proposals	At a minimum of two (2) consecutive weeks and at least one publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	Executive Director
Above 1,000,000	Procurement by	At a minimum of two (2) consecutive weeks and at	Mayor

PROCUREMENT PROCEDURES MANUAL

Thresholds	Procurement type	Advertisement Period	Signature Required
	Competitive Proposals	least one publication in the Official Journal of the SWBNO supplemental publications, and the on the SWBNO website.	

Chapter 16

Chapter 16: Other Procurement Methods

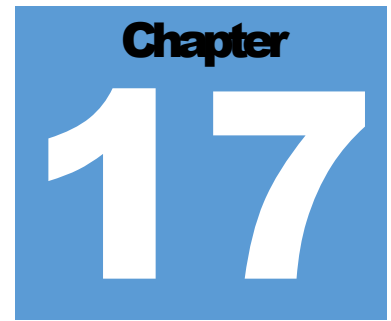
The Louisiana Public Bid Law provides for the following alternative procurement methods:

State Contracts: La R.S. 38:2212.1(F) provides that purchases may be made from available state procurement contracts without the necessity of bidding.

State Contracts through Local Dealer: Purchases may be made from state procurement contracts which may be available, without the necessity of bidding and may be bought through a local vendor selling the exact same product.

Piggy Back Purchases: Purchasing can be done jointly with other political subdivisions or purchase can be made under a contract entered by another Louisiana public entity of the vendor consents

Adopt Procurement Code: Political subdivisions and municipalities can adopt all or any part of the Louisiana Procurement Code to govern their procurements, but must still use the Public Bid Law for public works contracts.



Chapter 17: Related Information

Contract Termination: A contract issued by SWBNO can be terminated for cause or for the benefit of the organization, based upon consultation and review by Special Counsel.

Other related policies, guides and procedures: Other SWBNO policies and procedures related to procurement activities provide additional guidance and support for the management and implementation of purchasing activities of SWBNO. These include:

- PRO-01
- PRO-02
- PRO-03
- Policy #58
- Policy #63
- Policy #66
- Policy #70
- Policy #72

Eliminated Policies: Upon the effective date of this manual, the following policies are obsolete and superseded by the procedures described herein.

Chapter 18

Chapter 18: Forms

The below forms are referenced in the sections that follow. All forms can be found on the internal network drive for Purchasing.

Informal Bid Cover Sheet

The Informal Bid Form is required for all solicitations for goods, non-professional services and materials, under \$30,000 and Construction projects under \$10,000 as set by Louisiana Revised Statute §33:4085. The Informal Bid Form will be completed by the Purchasing Department once bids are received. The Informal Bid Cover Sheet provides an overview of the entire Informal Bid process. The Informal Bid Cover Sheet provides the determination given for the award of the bid and is also signed off on by the User Department.

Responsible Unit: User Department and Purchasing Department

Informal Bid Quote Form

The User Department or Purchasing Department will be required complete this sheet which documents the actual informal bid quotes which are obtained from the vendors. Individuals are required note if federal funds will be utilized. The User Department has the option of directly attaching the three quotes for review by Purchasing, or they may provide a full detailed description of the services needed, and Purchasing will reach out to qualified vendors for quotes. When quotes are obtained at least one quote must be from a qualified DBE firm.

Responsible Unit: User Department and Purchasing Department

Contract Data Form

The Contract Data Form is required for the following solicitations:

The Contractor Data Form shall be included with the appropriate solicitation form and submitted to Purchasing prior to the solicitation being released. The Contractor Data form provides the necessary information to ensure that the Finance Department has reviewed and identified that funds are available for the requested solicitation.

Responsible Unit: User Department

Bid Procurement Authorization Form

For all sealed bids, the Bid Procurement Authorization Form must be submitted with the complete bid package to the Purchasing Department for their review and approval. The Bid Procurement Authorization Form provides the necessary information that is required for Purchasing's approval prior to the construction project going out to bid. **Responsible Unit:** User Department

Small Purchase Professional Services Form

For all professional service solicitations under \$15,000 which will be procured by SWBNO, the Small Purchase Professional Services Form will be completed by the User Department and submitted to Purchasing for review. The User Department will be required to note if federal funds will be utilized. The User Department has the option of directly attaching the three quotes for review by Purchasing, or they may provide a full detailed description of the services needed, and Purchasing will reach out to qualified vendors for quotes. When quotes are obtained at least one quote must be from a qualified DBE firm.

Responsible Unit: User Department

Request for Professional Services Form

For all professional service solicitations over \$15,000, the User Department must submit a Request for Professional Services Form to the Purchasing Department prior to the release of an RFP/RFQ. The form serves as a cover sheet which provides the Purchasing Department the appropriate information to ensure that all necessary information is provided prior to the solicitation being released.

Responsible Unit: User Department and Purchasing Department

RFP/RFQ Template

The RFP/RFQ Template the standard template used for all procurements by competitive proposals (RFP/RFQ) procured by SWBNO. All draft Scope of Works mentioned in this document must be completed using the standard template provided by the Purchasing Department. All drafts not completed using the template will not be accepted by SWBNO Purchasing Department.

Responsible Unit: User Department and Purchasing Department

Independent Cost Estimate Form (ICE)

In accordance with 44 CFR Part 13.36(f)(1), 24 CFR 85.36, and 2 CFR 200.320, the SWBNO will perform a price analysis and/ or an independent cost estimate (ICE) to determine cost reasonableness prior to engaging in the procurement of all goods and services, including contract modifications. ICEs and price analyses may incorporate an evaluation of historical documentation of past projects of a similar scope and scale; average costs for similar work in the area; published unit costs from a national cost estimating database; and federally established cost codes, equipment rates, and engineering and design services curves. The ICE Form must be submitted with all procurements where federal funds are being used.

Responsible Unit: User Department

Cost Reasonableness Analysis Form

A Cost Reasonableness Analysis is used to determine whether the elements of an existing agreement with a contractor are allowable, directly related to the requirement, and the cost is reasonable.

Responsible Unit: User Department

Change Order Recommendation Form

A *Change Order Recommendation Form* is used to track the approvals of Change Orders and amendments. The completed form along with all supporting documents including an ICE ensures that all change orders are completed in a compliant manner. This form allows for all change orders to be tracked in a uniform manner and are documented for audit purposes.

Responsible Unit: User Department

Amendment to Contracts Form

An Amendment to Contracts Form is utilized when a change to a professional service, non-professional service, or goods and material contract is requested. This form documents the change requested and will serve as the approval document for Contracts.

Responsible Unit: Used Department and Purchasing Department