

**ALBANY WATER BOARD**  
**MINUTES OF REGULAR MEETING**  
September 28, 2018

A regular meeting of the Albany Water Board was officially convened at 9:55 AM, in the Conference Room at the Albany Water Board, 10 North Enterprise Drive, Albany, NY on Friday, Sept. 28, 2018.

**PRESENT:** Charles Houghton, Chairman; Dan Ranellone, Vice Chairman; Rachel Johnson, Secretary

**BOARD MEMBERS EXCUSED:** Anthony Owens, Treasurer

**STAFF PRESENT:** Joseph E. Coffey, Jr., P.E., Commissioner; Thomas Dufresne, CFO; William Simcoe, P.E., Deputy Commissioner; Emily Lyons, Confidential Assistant

**BOARD ADVISORS PRESENT:** William Kahn, UHY Advisors, Rate Consultant; Madalyn DeThomasis, Assistant Corporation Counsel; Kevin Hogan, P.E., Arcadis

**Approval of August 24 Regular Meeting**

Chairman Charles Houghton introduced the minutes of the Regular Meeting held on August 24, 2018. With no objection, the reading of minutes was dispensed and Mr. Houghton called for a motion to approve the minutes of said meeting. A motion was made and seconded and passed unanimously.

**Public Comment Period**

No public comments.

**Committee and Staff Reports**

**Archeology Presentation (Floatables Project):** Sue Gade & Dirk Marcucci, Landmark Archaeology

Federal laws require cultural resources to be protected during excavation work. Currently, Landmark Archaeology is reviewing the lands in the floatables project to complete a report on any historical artifacts that are found. There might be an opportunity to display these artifacts at a public place in the future.

**Report from Finance Committee:** Dan Ranellone, Vice Chairman

After discussions on the 2019 budget and the recommended 2% rate increase for 2019, the Finance committee accepted the proposals and recommends the 2% rate increase to be presented at a public hearing.

**Financial Report:** Thomas Dufresne, CFO

We are still under budget with operating expenses currently closely aligned. Overtime is up compared to last year, due to flooding events in July/August. Overall, August was a good month, with cash flow

positive and debt service costs declining. Personnel costs still remain as the largest variance. Still high in workers comp, so we must keep focusing on safety to bring these numbers down. Currently down on leak prevention metrics because of staffing issues.

**Commissioner's Report:** Joseph Coffey, P.E., Commissioner

**2017 Large Diameter Trunk Sewer Rehabilitation Project/Washington Park Lake:** This is ongoing after the change order for emergency rehabilitation/repair work at Washington Park.

**2018 CIPP lining project status report:** The scheduled work for the year is complete. A new engineer (Katie McKitrick) managed the program this year and did a good job. We had no complaints about the smell of CIPP lining due to advance communication on the process.

**Floatables Project – construction status report:** Maiden Lane is complete, with Stueben close, and Orange starting work soon. Jackson Street is in the Archaeology phase. We plan to keep working into winter and will incur temporary restoration costs.

**Beaver Creek Clean River Project Community Outreach - status report:** Committee meeting is being held on Oct. 1 for members to review the updated Reflection Garden concept by CHA Companies. The new design of the treatment building will be much smaller and will eliminate the truck traffic needed for on-site screening/floatables removal.

**Beaver Creek – Phase 6 Project Update:** This has been awarded and is moving forward. This project is timely due to the recent flooding. We also attended several neighborhood meetings to discuss recent flooding.

**Feura Bush WTP Employee & Public Space Improvements – Project Update:** Employees are in the trailers with demolition ongoing. We are planning for employees to move back starting in late winter\early spring.

**Tivoli/Patroun Creek Daylighting Status report:** This project has had construction contract awarded and will start in Q4.

**Upper Washington Ave. Booster PS & Tank Project update:** The contract has been awarded and we are moving ahead on paperwork.

**Upper Washington Ave Sewer PS and Force Main project update:** We had to re-bid due to the high bids the first time.

**Hydrant Inspection & Flushing Program – status report:** This is ongoing and we have been getting fewer complaints regarding brown water. We are evaluating hydrants and updating data; however we will not get all hydrants done this year.

**Report from Arcadis:** Kevin Hogan

The Capital Improvements summary shows what has been paid to date and what is encumbered. The engineering report is attached to the minutes packet.

### **Old Business**

**Guilderland Water Purchase Agreement:** The agreement has been finalized. We negotiated a sewer agreement to direct 200,000 gallons per day to their force main from the Krum Kill sewer shed.

**Alcove – Nature Conservancy:** This agreement should be signed before next meeting, and then there is a 90 day notification period.

## Executive Session

The Board entered Executive Session to discuss pending litigation in relation to the Coeymans Property Assessment. No action was taken in Executive Session.

### Resolutions

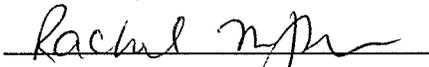
Mr. Houghton called for a motion to approve each of the following resolutions. A motion was made for each and seconded; and passed unanimously.

- **Resolution 18-77:** Authorizing Payment of \$2,468.75 to Hugh Johnson Advisors for quarterly investment services for the period 7/1/18 – 9/30/18
- **Resolution 18-78:** Authorizing Award of Contract to Woodard & Curran PA, PC for Utility Work Order Software & Computerized Maintenance & Management System (CMMS) in accordance with RFP 2018-23 in the amount of \$26,270.
- **Resolution 18-79:** Authorizing the Chairman on behalf of the Albany Water Board to execute an Amendment to the Finance Agreement by and among the Albany Water Board, the City of Albany and the Albany Municipal Water Finance Authority relating to the Albany Colonie Emergency Interconnection project and Authorizing the Execution and Delivery of Certain Documents by the Board in Connection with Issuance of Obligations by the Albany Municipal Water Finance Authority.
- **Resolution 18-80:** Authorizing the Chairman to Execute the Albany Pool Communities Intermunicipal Agreement relating to Cash Disbursements and Long Term Debt Service Agreements with the City of Cohoes and City of Rensselaer.
- **Resolution 18-81:** Authorizing an Amendment to the Task Order for Floatables Design and Construction Phase Service with CHA Engineers for Additional Archaeology Investigation in the not to exceed amount of \$425,000.
- **Resolution 18-82:** Authorizing the Emergency Repair Contract with Wm. J. Keller & Sons Construction Corp. for the Bouck Regulator/Long Term Control Plan project under a Time and Materials Task Order in an amount not to exceed \$450,000.
- **Resolution 18-83:** Resolution Determining That Action To Undertake The Normans Kill Farm Drainage and Access Road Improvements Project Is A "Type II Action" And No Further Action Is Required Under SEQRA With Respect Thereto
- **Resolution 18-84:** Resolution Determining That Action To Undertake The Feura Bush Lagoon Stabilization Project Is A "Type II Action" And No Further Action Is Required Under SEQRA With Respect Thereto
- **Resolution 18-85:** Resolution Determining That Action To Undertake Shaker Park Water Main Replacement Project Is A "Type II Action" And No Further Action Is Required Under SEQRA With Respect Thereto
- **Resolution 18-86:** Authorizing the Execution of Change Order #1 to Contract 1A Feura Bush Filtration Plant Employee and Public Space Improvements with U. W. Marx Construction Company in the amount of \$29,864., for a new Contract amount of \$1,662,478. No increase in contract time.
- **Resolution 18-87:** Authorizing the Execution of Change Order #2 to the Alcove Reservoir Water Supply Gate Rehabilitation (Electrical) Project Contract with Stilsing Electric, Inc., in the amount of \$9,247. The new contract amount is \$98,547, and the contract completion date of May 8, 2018 has been extended to December 31, 2018.
- **Resolution 18-88:** Authorizing the Chairman to schedule a Public Hearing for a proposal to modify the current Schedule of Rate Structure.

Being no further business, Mr. Houghton called for a motion to adjourn the meeting. A motion was made, seconded and passed unanimously. The meeting was adjourned at 11:32 AM.

Next regular meeting of the Water Board is scheduled for Friday, October 26, 2018, 9:30am. Finance Committee meeting is scheduled for Friday, October 26, 2018, at 8:30am.

Recorded by: Emily Lyons, Confidential Assistant

Approved by:   
Rachel Johnson, Secretary

**ALBANY WATER BOARD**  
**ALBANY MUNICIPAL WATER FINANCE AUTHORITY**  
**COMBINED FINANCIAL STATEMENTS**  
*For the period ending August 31, 2018*

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**ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
STATEMENTS OF CASH FLOWS  
August 31, 2018**

	One Month Period Ended		Year-To-Date Periods Ended		Percent Variance	Variance	Percent Variance
	2018	2017	2018	2017			
<b>Revenues</b>							
Water/sewer revenue	\$ 3,033,238	\$ 2,963,415	\$ 69,823	\$ 21,841,833	2.4%	\$ 899,546	4.3%
Investment income	31,391	7,173	24,218	276,408	337.6%	44,732	19.3%
Total revenues	3,064,629	2,970,588	94,041	22,118,242	3.2%	944,279	4.5%
<b>Operating expenses</b>							
Operation/maintenance costs	1,404,455	1,315,078	89,378	13,481,767	6.8%	688,369	5.4%
Board/Authority expenses	10,071	7,708	2,364	100,417	30.7%	30,149	42.9%
Total expenses	1,414,526	1,322,785	91,741	13,582,184	6.9%	718,518	5.6%
<b>Net operating cash flows before debt service and capital project costs</b>	1,650,102	1,647,802	2,300	8,536,057	0.1%	225,761	2.7%
<b>Debt service costs</b>	(411,333)	(497,850)	86,517	(3,290,664)	-17.4%	692,136	-17.4%
<b>Capital project costs</b>	(724,479)	(903,516)	179,037	(3,406,530)	0.0%	50,256	0.0%
<b>Grant Income</b>	451,712	-	451,712	1,100,231	0.0%	284,603	0.0%
<b>Net cash flow (deficiency)</b>	\$ 966,002	\$ 246,437	\$ 719,566	\$ 2,989,094	292.0%	\$ 1,252,755	72.1%

ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
SCHEDULE OF REVENUES  
August 31, 2018

	2018 Budget	2018 Actual	Variance Favorable (Unfavorable)	Variance %	2017 Budget	2017 Actual	Variance Favorable (Unfavorable)	Variance %
<b>Water and sewer revenue</b>								
August	3,398,014	\$ 3,033,238	\$ (364,776)	-11%	\$ 3,389,440	\$ 2,963,415	\$ (426,025)	-13%
Year-to-Date	22,863,929	\$ 21,841,833	\$ (1,022,095)	-4%	\$ 23,235,620	\$ 20,942,287	\$ (2,293,333)	-10%
<b>Investment income</b>								
August	\$ 22,917	\$ 31,391	\$ 8,474	37%	\$ 15,839	\$ 7,173	\$ (8,666)	-55%
Year-to-Date	\$ 183,333	\$ 276,408	\$ 93,075	51%	\$ 166,665	\$ 231,676	\$ 265,286	159%

**Additional Cash Receipts**      Monthly      YTD

	Monthly	YTD
<b>Miscellaneous</b>		
Other	\$ -	\$ 22,944
Fishing Permits	\$ 130	\$ 825
Sales of Scrap	\$ 920	\$ 8,261
Insurance Recoveries	\$ -	\$ -
Colonie Street	\$ 1,750	\$ 4,750
Delmar Mall Easement	\$ -	\$ -
Delaware Plaza Easement	\$ -	\$ -
<b>Rent</b>		
Huck Finn	\$ 1,250	\$ 10,000
DASNY Rent	\$ 1,250	\$ 10,000
Lamar	\$ -	\$ -
Time Warner Rent	\$ -	\$ -
Sprint	\$ -	\$ 12,442
<b>Totals</b>	\$ 5,300	\$ 69,222

Note: The revenue budgets reflect forecasted revenue collections of \$37,725,000, which includes

**ALBANY WATER BOARD**  
**ALBANY MUNICIPAL WATER FINANCE AUTHORITY**  
**SCHEDULE OF OPERATING**  
**August 31, 2018**

	YEAR-TO-DATE August 2018				2017 YTD ACTUAL
	2018 ANNUAL BUDGET	ADJUSTED BUDGET	ACTUAL	(OVER)/ UNDER	
<b>Administration</b>					
Personnel services	1,263,510	826,141	829,517	(3,376)	674,787
Equipment/Furniture	2,000	1,308	1,769	(462)	259
Contractual and other expenses	251,395	164,374	162,238	2,136	115,227
Benefits	465,999	304,692	201,776	102,916	204,642
	1,982,904	1,296,514	1,195,300	101,214	994,915
<b>Supply, Power and Pumping</b>					
Personnel services	912,712	596,773	487,456	109,318	416,254
Equipment	211,000	137,962	10,315	127,646	28,446
Contractual and other expenses	151,735	99,211	73,609	25,603	58,617
Benefits	197,367	129,048	159,285	(30,237)	141,521
	1,472,814	962,994	730,664	232,330	644,838
<b>Purification</b>					
Personnel services	1,486,196	971,744	862,334	109,409	656,126
Equipment	255,000	166,731	48,759	117,972	87,137
Contractual and other expenses	1,365,728	892,976	476,814	416,162	468,080
Benefits	459,287	300,303	246,633	53,670	200,225
	3,566,211	2,331,753	1,634,541	697,213	1,411,569
<b>Transmission/Distribution</b>					
Personnel services	2,988,926	1,954,298	1,565,151	389,147	1,579,922
Equipment	570,000	372,692	8,774	363,918	209,931
Contractual and other expenses	2,352,159	1,537,950	719,171	818,779	898,063
Benefits	967,571	632,643	495,728	136,915	541,432
	6,878,656	4,497,583	2,788,824	1,708,758	3,229,348
<b>Sewer Services</b>					
Personnel services	888,478	580,928	552,805	28,123	527,410
Equipment	363,000	237,346	43,621	193,725	69,066
Contractual and other expenses	1,854,062	1,212,271	1,129,706	82,565	840,811
Benefits	202,781	132,588	207,831	(75,244)	203,207
	3,308,321	2,163,133	1,933,964	229,169	1,640,493
<b>Pumping Stations</b>					
Personnel services	166,365	108,777	106,270	2,507	99,874
Equipment	10,000	6,538	-	6,538	9,957
Contractual and other expenses	371,807	243,105	174,757	68,347	163,501
Benefits	74,015	48,394	48,563	(169)	40,081
	622,187	406,814	329,590	77,224	313,413
<b>Taxes Paid to Municipalities</b>	2,262,758	565,690	570,809	(5,119)	566,134
<b>County Sewer Contract</b>	6,500,000	3,250,000	3,114,673	135,327	3,054,422
<b>Contingencies, Insurance and Other</b>	4,516,633	2,187,285	1,183,402	1,003,882	938,266
<b>Total Operating Expenses</b>	<b>31,110,484</b>	<b>17,661,766</b>	<b>13,481,767</b>	<b>4,179,998</b>	<b>12,793,399</b>
<b>Capital Expenditures</b>					
	3,000,000	2,000,000	3,356,530	(1,356,530)	3,406,786
<b>GRAND TOTAL</b>	<b>34,110,484</b>	<b>19,661,766</b>	<b>16,838,298</b>	<b>2,823,468</b>	<b>16,200,185</b>

**EXPENSE SUMMARY:**

	2018	2017	Change
Personnel Services	4,403,533	3,954,373	449,161
Equipment	113,239	404,796	(291,557)
Contractual and other expenses	2,736,295	2,544,299	191,996
Benefits	1,359,816	1,331,109	28,707
Other	4,868,884	4,558,822	310,062
	13,481,767	12,793,399	688,369

Percent Increase/Decrease over 2017 5.4%  
Percent under Budget -23.7%

Personnel Services under Budget -12.6%  
Other -21.5%

**ALBANY WATER BOARD**  
**ALBANY MUNICIPAL WATER FINANCE AUTHORITY**  
**August 31, 2018**

**Actual Expenditures to Date**

1995	\$	3,459,286
1996		3,148,713
1997		2,977,569
1998		2,059,812
1999		2,696,065
2000		1,771,829
2001		2,437,338
2002		3,384,049
2003		3,845,848
2004		5,673,522
2005		2,389,244
2006		1,575,740
2007		459,599
2008		1,230,331
2009		1,807,010
2010		1,108,164
2011		734,443
2012		2,266,553
2013		2,059,475
2014		1,832,084
2015		2,076,594
2016		8,403,230
2017		5,737,150
2018		3,356,530
	<b>\$</b>	<b>66,490,178</b>

**Comparative Expenditures**

[----- 2016 -----]		2017	
January	\$ -	January	\$ -
February		February	5,949
March	423,060	March	94,117
April	72,924	April	336,818
May	94,213	May	519,075
June	329,510	June	668,351
July	115,872	July	878,960
August	253,453	August	903,516
September	1,383,307	September	96,704
October	427,592	October	407,796
November	353,823	November	717,995
December	4,949,476	December	1,107,869
	<b>\$ 8,403,230</b>		<b>\$ 5,737,150</b>

2018	Gross Capital	Grants & Funding	Net Capital	YTD
January	\$ -		\$ -	\$ -
February	-		-	-
March	-		-	-
April	35,417	377,649	(342,233)	(342,233)
May	916,156	1,217,581	(301,426)	(643,658)
June	1,044,879	-	1,044,879	401,221
July	635,600	-	635,600	1,036,822
August	724,479	451,712	272,767	1,309,589
September	-		-	1,309,589
October	-		-	1,309,589
November	-		-	1,309,589
December	-		-	1,309,589
	<b>\$ 3,356,530</b>	<b>\$ 2,046,942</b>	<b>\$ 1,309,589</b>	<b>1,309,589</b>

04 - Capital Projects

**ALBANY WATER BOARD**  
**ALBANY MUNICIPAL WATER FINANCE AUTHORITY**  
**SCHEDULE OF OVERTIME**  
*August 31, 2018*

OVERTIME	Budget 8/31/2018 YTD	Actual 8/31/2018 YTD	Budget Difference (over)/under	Actual 8/31/2017 YTD	Actual Difference (over)/under
Supply, Power and Pumping	\$ 49,038	\$ 42,533	\$ 6,506	\$ 33,328	\$ (9,205)
Purification	\$ 58,846	\$ 62,300	\$ (3,454)	\$ 44,256	\$ (18,044)
Transmission/Distribution	\$ 183,077	\$ 224,488	\$ (41,411)	\$ 224,505	\$ 17
Sewer Services	\$ 32,692	\$ 45,198	\$ (12,505)	\$ 46,902	\$ 1,704
Pumping Stations	\$ 3,269	\$ 5,329	\$ (2,059)	\$ 3,747	\$ (1,582)
<b>TOTAL</b>	<b>\$ 326,923</b>	<b>\$ 379,847</b>	<b>\$ (52,924)</b>	<b>\$ 352,737</b>	<b>\$ (27,110)</b>
Percentage			-16.19%		-7.7%
DUE FROM THE CITY OF ALBANY	8/31/2018				
	\$ 3,507,822				
Rt 7 ACCOUNTS RECEIVABLE	\$ 672,091				

**ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
EXPENSE DETAIL BY DEPARTMENT  
August 31, 2018**

Trial Balance Listing Account Description	July		August		2017	
	Balance Forward	MTD Debits	MTD Credits	Ending Balance	MTD Balance	MTD Balance
Department 8120 - Sewer Maintenance						
Salaries	439,156.43	68,450.96	-	507,607.39	-	-
Supervisory	-	-	-	-	102,312.34	-
Professional/Technical	-	-	-	-	-	-
Public Safety/Operations	-	-	-	-	-	-
Trades	-	-	-	-	378,195.42	-
Clerical	-	-	-	-	-	-
Line-up Pay/Clothing Allow	3,600.00	400.00	-	4,000.00	6,000.00	-
Overtime	36,636.24	8,561.37	-	45,197.61	46,901.90	-
Vehicles	-	-	-	-	21,547.06	-
Other Equipment	39,826.00	3,795.00	-	43,621.00	47,518.86	-
Supplies & Materials	55,171.10	4,574.82	-	59,745.92	33,128.34	-
Uniforms	-	-	-	-	-	-
Gasoline	19,765.59	-	-	19,765.59	17,070.25	-
Motor Vehicle Expense	45,306.87	8,342.75	-	53,649.62	34,072.78	-
Expense of Litigation	-	-	-	-	-	-
Contracted Services	869,216.38	127,328.81	-	996,545.19	756,539.38	-
Training/Conferences	-	-	-	-	-	-
Social Security	34,585.71	5,591.64	-	40,177.35	38,417.60	-
Hospital & Medical Ins.	144,972.14	22,478.04	3,796.07	163,654.11	158,789.39	-
Department 8120 - Sewer Maintenance Totals	<b>1,688,236.46</b>	<b>249,523.39</b>	<b>3,796.07</b>	<b>1,933,963.78</b>	<b>1,640,493.32</b>	

**ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
EXPENSE DETAIL BY DEPARTMENT  
August 31, 2018**

Trial Balance Listing Account Description	July		August		2017	
	Balance Forward	MTD Debits	MTD Credits	Ending Balance	MTD Balance	MTD Balance
Department 8130 - Pumping Stations						
Salaries	86,125.17	14,647.51	-	100,772.68	-	-
Supervisory	-	-	-	-	32,599.48	32,599.48
Public Safety/Operations	-	-	-	-	63,527.95	63,527.95
Temporary Help	168.75	-	-	168.75	-	-
Line-up Pay/Clothing Allow	800.00	-	-	800.00	800.00	800.00
Overtime	4,490.67	837.95	-	5,328.62	3,746.72	3,746.72
Other Equipment	-	-	-	-	9,956.59	9,956.59
Supplies & Materials	-	-	-	-	423.00	423.00
Fuel Oil	-	-	-	-	-	-
Uniforms	-	-	-	-	-	-
Utilities	94,067.83	16,761.30	-	110,829.13	68,591.33	68,591.33
Expense of Litigation	-	-	-	-	-	-
Contracted Services	62,446.35	1,481.75	-	63,928.10	94,486.86	94,486.86
Training/Conferences	-	-	-	-	-	-
Social Security	6,412.99	1,094.76	-	7,507.75	7,052.48	7,052.48
Hospital & Medical Ins.	35,223.55	5,740.45	708.70	40,255.30	32,229.00	32,229.00
Department 8130 - Pumping Stations Totals	<b>289,735.31</b>	<b>40,563.72</b>	<b>708.70</b>	<b>329,590.33</b>	<b>313,413.41</b>	<b>313,413.41</b>

**ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
EXPENSE DETAIL BY DEPARTMENT  
August 31, 2018**

Trial Balance Listing Account Description	July		August		2017	
	Balance Forward	MTD Debits	MTD Credits	Ending Balance	MTD Balance	MTD Balance
Department 8310 - Water Administration						
Salaries	701,662.98	117,137.50	-	818,800.48	-	-
Executive	-	-	-	-	65,197.04	65,197.04
Supervisory	-	-	-	-	141,874.98	141,874.98
Professional/Technical	-	-	-	-	370,058.44	370,058.44
Public Safety/Operations	-	-	-	-	-	-
Clerical	-	-	-	-	97,657.01	97,657.01
Temporary Help	6,300.00	2,718.75	-	9,018.75	-	-
Longevity Pay	1,450.00	-	-	1,450.00	29,200.00	29,200.00
Line-up Pay/Clothing Allow	400.00	-	-	400.00	-	-
Overtime	1,580.40	117.77	-	1,698.17	-	-
Furniture & Fixtures	989.40	779.99	-	1,769.39	259.08	259.08
Supplies & Materials	25,172.06	1,925.27	-	27,097.33	17,209.92	17,209.92
Utilities	25,139.43	12,369.41	-	37,508.84	38,430.08	38,430.08
Contracted Services	34,469.42	4,984.39	-	39,453.81	30,512.65	30,512.65
Printing & Binding	2,932.17	1,709.54	-	4,641.71	2,451.60	2,451.60
N.Y.S.P.I.N.	-	-	-	-	-	-
Fees & Services	951.80	-	-	951.80	880.27	880.27
Miscellaneous	298.47	180.00	-	478.47	1,137.44	1,137.44
Training/Conferences	8,867.18	262.84	-	9,130.02	1,172.56	1,172.56
Postage	20,754.66	22,220.99	-	42,975.65	23,432.56	23,432.56
Social Security	53,052.98	8,834.94	-	61,887.92	50,944.14	50,944.14
Hospital & Medical Ins.	122,574.21	19,503.90	4,040.45	138,037.66	124,497.37	124,497.37
Department 8310 - Water Administration Totals	<b>1,006,595.16</b>	<b>192,745.29</b>	<b>4,040.45</b>	<b>1,195,300.00</b>	<b>994,915.14</b>	<b>994,915.14</b>

**ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
EXPENSE DETAIL BY DEPARTMENT  
August 31, 2018**

Trial Balance Listing Account Description	July		August		2017	
	Balance Forward	MTD Debits	MTD Credits	Ending Balance	MTD Balance	MTD Balance
Department 8320 - Source of Supply, Power						
Salaries	348,921.14	72,410.61	-	421,331.75	-	-
Supervisory	-	-	-	-	5,502.03	5,502.03
Professional/Technical	-	-	-	-	123,138.47	123,138.47
Public Safety/Operations	-	-	-	-	229,061.38	229,061.38
Clerical	-	-	-	-	20,467.73	20,467.73
Temporary Help	15,308.25	8,282.75	-	23,591.00	4,756.50	4,756.50
Line-up Pay/Clothing Allow	3,960.00	200.00	-	4,160.00	3,040.00	3,040.00
Overtime	37,161.66	5,371.28	-	42,532.94	33,327.50	33,327.50
Vehicles	-	-	-	-	-	-
Other Equipment	10,315.24	-	-	10,315.24	28,446.36	28,446.36
Supplies & Materials	13,609.88	3,150.61	-	16,760.49	9,635.32	9,635.32
Fuel Oil	2,284.80	-	-	2,284.80	1,544.56	1,544.56
Uniforms	-	-	-	-	-	-
Gasoline	6,376.29	1,180.39	-	7,556.68	5,369.33	5,369.33
Utilities	34,041.69	6,039.80	-	40,081.49	36,618.70	36,618.70
Contracted Services	6,185.55	-	-	6,185.55	4,270.48	4,270.48
Miscellaneous	183.19	-	-	183.19	97.40	97.40
Training/Conferences	556.59	-	-	556.59	1,081.20	1,081.20
Social Security	30,598.91	6,308.44	-	36,907.35	31,763.41	31,763.41
Hospital & Medical Ins.	102,552.83	20,432.10	4,767.60	118,217.33	106,717.80	106,717.80
Department 8320 - Source of Supply, Power Totals	<b>612,056.02</b>	<b>123,375.98</b>	<b>4,767.60</b>	<b>730,664.40</b>	<b>644,838.17</b>	<b>644,838.17</b>

**ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
EXPENSE DETAIL BY DEPARTMENT  
August 31, 2018**

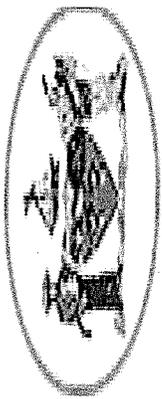
Trial Balance Listing Account Description	July		August		2017	
	Balance Forward	MTD Debits	MTD Credits	Ending Balance	MTD Balance	MTD Balance
Department 8330 - Purification						
Salaries	679,456.75	120,577.27	-	800,034.02	-	-
Supervisory	-	-	-	-	-	-
Professional/Technical	-	-	-	-	165,612.00	165,612.00
Public Safety/Operations	-	-	-	-	446,257.97	446,257.97
Trades	-	-	-	-	-	-
Line-up Pay/Clothing Allow	4,600.00	-	-	4,600.00	4,400.00	4,400.00
Overtime	54,390.77	7,909.44	-	62,300.21	44,256.10	44,256.10
Vehicles	-	-	-	-	-	-
Other Equipment	-	-	-	-	17,674.33	17,674.33
Laboratory Equipment	4,340.64	10,035.65	-	14,376.29	15,744.06	15,744.06
Filtration Plant Equip	21,408.45	12,974.30	-	34,382.75	53,718.80	53,718.80
Supplies & Materials	62,065.46	10,907.70	-	72,973.16	28,073.67	28,073.67
Fuel Oil	51,498.64	-	-	51,498.64	40,067.17	40,067.17
Uniforms	-	-	-	-	-	-
Chemicals	217,482.88	51,980.13	-	269,463.01	254,253.96	254,253.96
Utilities	23,627.93	3,947.42	-	27,575.35	74,992.37	74,992.37
Contracted Services	44,386.08	2,954.00	-	47,340.08	63,810.70	63,810.70
Miscellaneous	61.00	185.05	-	246.05	1,677.18	1,677.18
Training/Conferences	7,717.72	-	-	7,717.72	5,205.00	5,205.00
Residuals Management	-	-	-	-	-	-
Social Security	55,312.36	9,460.60	-	64,772.96	49,491.27	49,491.27
Hospital & Medical Ins.	157,701.29	25,306.57	5,747.55	177,260.31	146,334.11	146,334.11
Department 8330 - Purification Totals	<b>1,384,049.97</b>	<b>256,238.13</b>	<b>5,747.55</b>	<b>1,634,540.55</b>	<b>1,411,568.69</b>	<b>1,411,568.69</b>

**ALBANY WATER BOARD  
ALBANY MUNICIPAL WATER FINANCE AUTHORITY  
EXPENSE DETAIL BY DEPARTMENT  
August 31, 2018**

Trial Balance Listing Account Description	July		August		2017	
	Balance Forward	MTD Debits	MTD Credits	Ending Balance	MTD Balance	MTD Balance
Department 8340 - Transmission & Dist.						
Salaries	1,148,157.51	194,736.32	2,231.00	1,340,662.83	-	-
Supervisory	-	-	-	-	270,366.05	270,366.05
Professional/Technical	-	-	-	-	28,421.52	28,421.52
Public Safety/Operations	-	-	-	-	1,052,121.91	1,052,121.91
Trades	-	-	-	-	-	-
Temporary Help	-	-	-	-	4,507.35	4,507.35
Line-up Pay/Clothing Allow	9,800.00	400.00	-	10,200.00	10,800.00	10,800.00
Overtime	188,150.37	36,337.69	-	224,488.06	224,504.84	224,504.84
Vehicles	-	-	-	-	84,631.52	84,631.52
Other Equipment	7,277.43	1,497.00	-	8,774.43	125,299.63	125,299.63
Equipment Streets & Sidewalks	-	-	-	-	-	-
Supplies & Material Sts.	112,972.26	19,934.20	-	132,906.46	99,592.82	99,592.82
Supplies - Trans. & Dist.	194,575.21	40,096.02	-	234,671.23	214,621.17	214,621.17
Uniforms	-	-	-	-	-	-
Gasoline	79,062.36	-	-	79,062.36	68,280.99	68,280.99
Supp/Matr-Meter Repair	11,852.89	730.00	-	12,582.89	238,911.53	238,911.53
Utilities	43,001.95	5,850.56	-	48,852.51	51,708.94	51,708.94
Motor Vehicle Expense	76,571.05	13,957.83	-	90,528.88	51,366.02	51,366.02
Expense of Litigation	-	-	-	-	-	-
Contracted Services	96,231.48	22,287.80	-	118,519.28	173,468.95	173,468.95
Miscellaneous	295.61	-	-	295.61	112.50	112.50
Training/Conferences	1,751.95	-	-	1,751.95	-	-
Social Security	99,262.85	16,688.18	151.59	115,799.44	115,988.36	115,988.36
Hospital & Medical Ins.	329,332.59	59,174.82	18,778.91	369,728.50	414,644.04	414,644.04
Department 8340 - Transmission & Dist. Totals	<b>2,398,295.51</b>	<b>411,690.42</b>	<b>21,161.50</b>	<b>2,788,824.43</b>	<b>3,229,348.14</b>	<b>3,229,348.14</b>
<b>Grand Total</b>	<b>7,378,968.43</b>	<b>1,274,136.93</b>	<b>40,221.87</b>	<b>8,612,883.49</b>	<b>8,234,576.87</b>	<b>8,234,576.87</b>

# Utility Billing

## Aging Report



User: tdufresne  
 Printed: 09/19/2018 - 9:09 AM  
 Service: WATER

Aging Date: 08/31/2018  
 Billing Cycle: 005, 007  
 Balance Date: All accounts  
 Payment Terms: Tran  
 Account Type: Active  
 Minimum: 0.00  
 Maximum: 0.00  
 Sort: Customer Number

Account	Acct	Bal Fwd	Bal Under	Bal 30 to	Bal 60	Bal 90
31531-000	Active	69.82	34.91	0.00	0.00	0.00
OEYMAN'S HOLLOW FIRE COMPANY						
32467-000	Active	104.73	34.91	0.00	0.00	0.00
OEYMAN'S HOLLOW FIRE COMPANY						
cycle: 005	Aged	174.55	69.82	0.00	0.00	0.00
	Credit	0.00				
Totals		174.55				
05491-000	Active	4,672.50	4,672.50	0.00	0.00	0.00
ERIZON						
05492-000	Active	3,348.18	3,348.18	0.00	0.00	0.00
ERIZON						
05679-000	Active	31,020.60	15,636.40	15,384.20	0.00	0.00
WASHINGTON LLC						
08140-000	Active	1,671.42	886.44	784.98	0.00	0.00
LBANY HOUSING AUTHORITY						
08141-000	Active	2,947.12	2,365.62	581.50	0.00	0.00
LBANY HOUSING AUTHORITY						
1611-000	Active	12,629.40	12,629.40	0.00	0.00	0.00
CENTRAL TOWERS PRESERVATION LT						
6257-000	Active	3,607.90	3,607.90	0.00	0.00	0.00
07 - AR Aging						

TMG-ALBANY I LP									
016862-000	Active	69.82	69.82	0.00	0.00	0.00	0.00	0.00	0.00
THE PEOPLE OF THE STATE OF									
016863-000	Active	7,598.82	4,485.60	3,113.22	0.00	0.00	0.00	0.00	0.00
NYS OFF OF MENTAL HEALTH 50980									
027055-000	Active	36,064.60	36,064.60	0.00	0.00	0.00	0.00	0.00	0.00
ULTRE PET LLC									
031582-000	Active	400.50	400.50	0.00	0.00	0.00	0.00	0.00	0.00
CSX TRANSPORTATION-48534									
031586-000	Active	141,750.00	141,750.00	0.00	0.00	0.00	0.00	0.00	0.00
TOWN OF BETHLEHEM									
031832-000	Active	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
VETERANS HOSPITAL ADMIN									
032215-000	Active	421,434.58	421,356.36	78.22	0.00	0.00	0.00	0.00	0.00
SUNY-ALBANY NANO									
032274-000	Active	4,630.79	136.70	185.84	211.46	0.00	0.00	162.34	0.00
ROGER MARTEL									
032492-000	Active	69.82	69.82	0.00	0.00	0.00	0.00	0.00	0.00
ST PETERS HOSPITAL									
Cycle: 007	Aged	671,916.09	647,479.88	20,127.96	211.46			162.34	
	Credit	0.00							
	Totals	671,916.09							
Report	Aged	672,090.64							
	Credit	0.00							
	Grand	672,090.64	647,549.70	20,127.96	211.46			162.34	

*CITY OF*  
**ALBANY**

Bal Over

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Route 7 - YTD Billings - as of 8/31/18			
Customer Group	2017	2018	YoY Change
SUNY-ALBANY NANO	2,934,991.08	3,159,421.92	224,430.84
OGS-BUSINESS SERVICE CENTER	1,755,429.02	1,576,813.76	(178,615.26)
DEPT OF HEALTH	86,255.40	138,807.00	52,551.60
VETERANS HOSPITAL ADMIN	144,502.38	178,354.30	33,851.92
AFP107 CORP. D/B/A HILTON ALBANY	149,826.40	120,357.80	(29,468.60)
ST PETERS HOSPITAL	441,780.78	470,736.64	28,955.86
TOWN OF GUILDERLAND	4,702.90	31,468.82	26,765.92
ALBANY MEMORIAL HOSP. 3226-4017	132,675.90	156,043.20	23,367.30
ALBANY HOUSING AUTHORITY	50,083.86	27,837.42	(22,246.44)
ALBANY MEDICAL CENTER	578,876.96	558,699.24	(20,177.72)
ULTRE PET, LLC	269,737.80	289,002.00	19,264.20
BUCKEYE ALBANY TERMINAL, LLC	28,044.49	43,630.20	15,585.71
CENTRAL TOWERS PRESERVATION LT	82,009.00	96,404.76	14,395.76
TMG-ALBANY 1 LP	23,194.86	37,264.96	14,070.10
TIMES UNION CENTER	29,778.28	20,254.92	(9,523.36)
CSX TRANSPORTATION-48534	14,564.85	5,542.92	(9,021.93)
NYS OFF OF MENTAL HEALTH 50980	11,972.28	18,444.36	6,472.08
99 WASHINGTON LLC	63,243.92	67,373.56	4,129.64
SUNY-ALBANY	1,459,056.54	1,462,459.83	3,403.29
TERESIAN HOUSE	46,449.76	43,138.96	(3,310.80)
VERIZON	36,308.76	37,990.86	1,682.10
SAYVILLE BROWNING PROPERTIES INC	12,634.10	12,372.44	(261.66)
MARTEL	1,503.78	1,260.26	(243.52)
COEYMANS HOLLOW FIRE COMPANY	139.64	139.64	-
TOWN OF BETHLEHEM	1,134,000.00	1,134,000.00	-
THE PEOPLE OF THE STATE OF	558.56	558.56	-
PSEG POWER NY INC	-	-	-
<b>Total</b>	<b>9,492,321.30</b>	<b>9,688,378.33</b>	<b>196,057.03</b>

	BW.0630	BW.0630.A	BW.0630.TA	BW.0384	Due (to)/from	Change
January	-	(11,670,790.03)	(58,961.24)	15,742,664.75	4,012,913.48	(154,262.18)
February		(11,715,481.34)	1,559.61	15,742,664.75	4,028,743.02	15,829.54
March		(8,131,521.96)	1,559.61	15,742,664.75	7,612,702.40	3,583,959.38
April		(10,997,937.24)	1,559.61	15,742,664.75	4,746,287.12	(2,866,415.28)
May		(10,990,572.35)	1,559.61	15,742,664.75	4,753,652.01	7,364.89
June		(11,412,015.12)	1,559.61	15,742,664.75	4,332,209.24	(421,442.77)
July		(11,525,074.96)	1,559.61	15,742,664.75	4,219,149.40	(113,059.84)
August		(12,236,402.35)	1,559.61	15,742,664.75	3,507,822.01	(711,327.39)
September					-	(3,507,822.01)
October					-	-
November					-	-
December					-	-

# 2018 Budget Overview

	2018 ANNUAL BUDGET	July 2018 ACTUAL	2018 Projected
<i>Administration</i>	1,982,904	1,006,595	1,722,724
<i>Supply, Power and Pumping</i>	1,472,840	612,056	1,235,767
<i>Purification</i>	3,566,222	1,384,050	2,575,630
<i>Transmission/Distribution</i>	6,874,806	2,385,992	5,630,996
<i>Sewer Services</i>	3,309,356	1,685,161	3,183,573
<i>Pumping Stations</i>	622,187	289,735	505,318
<i>Taxes Paid to Municipalities</i>	2,262,758	570,809	1,912,758
<i>County Sewer Contract</i>	6,500,000	3,114,673	6,314,673
<i>Contingencies, Insurance and Other</i>	4,516,633	1,012,862	4,189,147
<b>TOTALS</b>	<b>31,107,706</b>	<b>12,061,933</b>	<b>27,270,586</b>
<b>Revenues:</b>			
Water and Sewer	37,725,000	18,807,696	34,004,185
Investment	275,000	245,018	275,000
<b>TOTAL Revenue</b>	<b>38,000,000</b>	<b>19,052,713</b>	<b>34,279,185</b>
<b>Gross Margin</b>	<b>6,892,294</b>	<b>6,990,781</b>	<b>7,008,599</b>

**The City of Albany  
Department of Water & Water Supply  
2019 Budget  
Key Assumptions and Instructions**

- 1 Employees will not change positions during year
  - Any wages, earnings, or expenses associated with an employee's years of service will remain with current position
- 2 Uniform allowance is \$200/FT BC employee & \$80/PT BC employee
- 3 Vacant positions are forecasted to be filled as of January 1 and includes maximum benefit costs
  - Default to most expensive insurance (family vs. single)
- 4 Union wages will increase in accordance with the City's contractual obligations
- 5 No further wage increases have been considered, except where individually noted
- 6
  - According to the NYS Department of Finance, insurance premiums will increase at a weighted average of 24% across all carriers, within the Individual Market. Small Group Markets are expected to increase at a weighted average of 7.5%. The City of Albany has elected to budget at individual service provider rates for Blue Cross/Blue Shield, which have an approved decrease of 3% in the individual market. Water will budget increased cost at 3%, the combination of CDPHP's approved increase, netted against BC/BS's approved decrease.
  - 7 Factored in a 15% contribution rate from employees for health insurance premiums.
  - 8 A 6 - 10% increase expected where American steel is used
  - 9 A 6 - 10% increase expected in plastic and paper products
  - 10 Assumes a 2% water rate increase (2019, 2020, & 2021)

# Proposed 2019 Budget

	2017 ANNUAL BUDGET	2017 ACTUAL	2018 ANNUAL BUDGET	2019 ANNUAL BUDGET
<b>Administration</b>				
Personnel services	\$ 1,390,899	\$ 1,206,241	\$ 1,263,510	\$ 1,659,917
Equipment	11,000	2,102	2,000	-
Contractual and other expenses	212,463	192,054	251,395	241,800
Benefits	478,445	221,193	465,999	289,008
	<b>2,092,807</b>	<b>1,621,590</b>	<b>1,982,904</b>	<b>2,190,724</b>
<b>Supply, Power and Pumping</b>				
Personnel services	986,556	701,645	912,738	1,035,489
Equipment	36,000	2,949	211,000	370,039
Contractual and other expenses	135,844	99,048	151,735	128,150
Benefits	205,159	127,534	197,367	327,448
	<b>1,363,559</b>	<b>931,176</b>	<b>1,472,840</b>	<b>1,861,126</b>
<b>Purification</b>				
Personnel services	1,342,227	1,212,864	1,486,206	1,653,151
Equipment	207,000	32,917	255,000	180,469
Contractual and other expenses	1,357,465	837,605	1,365,729	846,150
Benefits	448,073	325,960	459,287	393,425
	<b>3,354,765</b>	<b>2,409,346</b>	<b>3,566,222</b>	<b>3,073,195</b>
<b>Transmission/Distribution</b>				
Personnel services	2,712,920	2,569,856	2,985,076	3,127,676
Equipment	795,000	4,305	570,000	230,122
Contractual and other expenses	2,302,941	1,348,890	2,352,159	1,586,450
Benefits	956,945	583,361	967,571	761,441
	<b>6,767,806</b>	<b>4,506,412</b>	<b>6,874,806</b>	<b>5,705,688</b>
<b>Sewer Services</b>				
Personnel services	905,425	872,212	889,512	1,107,915
Equipment	257,000	1,300	363,000	100,000
Contractual and other expenses	1,882,312	2,129,007	1,854,062	2,190,500
Benefits	204,518	133,100	202,781	369,261
	<b>3,249,255</b>	<b>3,135,619</b>	<b>3,309,356</b>	<b>3,767,676</b>
<b>Pumping Stations</b>				
Personnel services	149,790	156,133	166,365	185,277
Equipment	30,000	-	10,000	-
Contractual and other expenses	417,764	323,032	371,807	330,000
Benefits	73,035	48,207	74,015	58,200
	<b>670,589</b>	<b>527,373</b>	<b>622,187</b>	<b>573,476</b>
<b>Taxes Paid to Municipalities</b>				
	2,196,853	1,978,681	2,262,758	1,800,000
<b>County Sewer Contract</b>				
	6,578,505	6,181,905	6,500,000	6,500,000
<b>Contingencies, Insurance and Other</b>				
	5,093,688	3,523,390	4,516,633	4,716,829
<b>TOTALS</b>	<b>31,367,827</b>	<b>24,815,492</b>	<b>31,107,706</b>	<b>30,188,715</b>
<b>Revenues:</b>				
Water and Sewer	39,294,094	33,004,383	37,725,000	34,600,000
Investment	205,906	352,126	275,000	300,000
<b>TOTAL Revenue</b>	<b>39,500,000</b>	<b>33,356,510</b>	<b>38,000,000</b>	<b>34,900,000</b>
Net Operating	10,468,173	9,584,591	9,303,294	6,591,915
<b>DSR</b>	<b>1.84:1</b>	<b>1.69:1</b>	<b>1.97:1</b>	<b>1.30:1</b>

## Positions Added/Removed

Action	Title	Amount	
Added	Equipment Operator II	41,038.40	Green Infrastructure
Added	Laborer III	35,755.20	Green Infrastructure
Added	Laborer III	35,755.20	Green Infrastructure
Added	Seasonal	13,628.00	
Added	Engineer	70,000.00	
Added	Engineering Aide III	57,630.00	
Added	Laborer III	35,006.40	
Added	Reservoir Patrol Guard	29,702.40	
Added	Reservoir Patrol Guard	29,702.40	
Added	Watershed Forester	55,000.00	
Added	Lab Technician	45,900.00	
Added	Operator - Assistant	48,588.00	
Added	Water Plant Attendant	35,755.20	
Added	Water Plant Attendant	35,755.20	
Added	Dispatch Administrator	50,399.00	
Added	Accounting Assistant	44,880.00	
Removed	Reservoir Patrol Guard - Part Time	(13,628.00)	
Removed	Reservoir Patrol Guard - Part Time	(13,628.00)	
Removed	Reservoir Patrol Guard - Part Time	(13,628.00)	
Removed	Electrician	(60,000.00)	
Removed	Labor Supervisor	(49,900.00)	
Removed	Water Maintenance Foreman	(49,900.00)	
	<b>Total</b>	<b>463,811.40</b>	

# Titles and/or Salary Changes

Department	Old Title	New Title	2018 Salary	2019 Salary*	Salary Change
8130 - Pumping Stations	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8310 - Water Administration	Engineering Aide III	Junior Engineer	57,630.00	61,200.00	3,570.00
8310 - Water Administration	Engineering Aide III	Junior Engineer	57,630.00	61,200.00	3,570.00
8320 - Source of Supply, Power	Equipment Operator II	Equipment Operator III	41,038.40	49,029.36	7,990.96
8320 - Source of Supply, Power	Laborer I - Guard & Gatehouse	Laborer II	29,120.00	35,006.40	5,886.40
8340 - Transmission & Distribution	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Laborer II	Laborer III	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Water Maintenance Repair Worker	Senior Water Maintenance Repair Worker	40,102.40	47,269.25	7,166.85
8340 - Transmission & Distribution	Water Maintenance Repair Worker - Nights	Senior Water Maintenance Repair Worker	40,102.40	47,269.25	7,166.85
8340 - Transmission & Distribution	Water Meter Service Worker	Water Meter Repair Worker	34,320.00	36,470.30	2,150.30
8340 - Transmission & Distribution	Water Meter Service Worker	Water Meter Repair Worker	34,320.00	36,470.30	2,150.30
			<b>643,143.20</b>	<b>702,147.60</b>	<b>59,004.40</b>

\*2019 Salary includes a 2% increase for all Blue Collar workers (which makes up \$11,367.60 of the \$59,004.40, in accordance with escalations in their Union Contract.

#	Requested by	Department	GL #	GL Description	General Description	Year	Make	Model	Amount	Unit #	Replaces
1		8340 - Transmission & Distribution	7250	Other Equipment	Sweeper for GI Team				100,000.00		
2		8340 - Transmission & Distribution	7250	Other Equipment	Sweeper for GI Team				-		
3	Joel	8340 - Transmission & Distribution	7230	Vehicles	Ruede	2019	Ford	Escape XLT	21,547.00	303	328
4	Joel	8340 - Transmission & Distribution	7230	Vehicles	Metering	2019	Ford	Escape XLT	21,547.00	330	343
5		8340 - Transmission & Distribution	7230	Vehicles					-		
6		8340 - Transmission & Distribution									
7		8330 - Purification	7263	Filtration Plant Equipment					100,000.00	N/A	N/A
7		8330 - Purification	7252	Laboratory Equipment					-	N/A	N/A
8	Rifat	8330 - Purification	7252	Laboratory Equipment	PerkinElmer PinAAcle 900Z	2018	Perkin Elmer	PinAAcle	45,000.00	N/A	N/A
9		8330 - Purification	7230	Vehicles					-		
10	Joel	8320 - Source of Supply, Power	7230	Vehicles		2019	Ford	F-250XL	30,086.00	377	
11	Joel	8320 - Source of Supply, Power	7230	Vehicles		2019	Polaris	900XP	14,210.00	NEW	
12		8320 - Source of Supply, Power	7250	Other Equipment					100,000.00		
13		8120 - Sewer Maintenance	7230	Vehicles					100,000.00		
14		8120 - Sewer Maintenance	7250	Other Equipment					-		
15		8130 - Pumping Stations	7250	Other Equipment					-		
16		8310 - Water Administration	7210	Furniture					-		
17	Joel	8320 - Source of Supply, Power	7250	Other Equipment	Yanmar	2019	Yanmar	V1080-1A	106,500.00		
18	Joel	8320 - Source of Supply, Power	7230	Vehicles	Truck	2019	Ford	F-250XL Utility	39,243.00		
19	Joe D.	8330 - Purification	7250	Other Equipment	Trailer 7 x 18	2019	Sure Trac		3,350.00		
20		8340 - Transmission & Distribution	7230	Vehicles	Engineer - NEW	2019	Ford	Escape XLT	21,547.00		
21		8340 - Transmission & Distribution	7230	Vehicles	Engineer - NEW	2019	Ford	Escape XLT	21,547.00		
22	Joe D.	8330 - Purification	7250	Other Equipment	RTV Blade				3,399.00		
23	Joe D.	8330 - Purification	7250	Other Equipment	RTV Salter				1,720.00		
24	Joe D.	8330 - Purification	7250	Other Equipment	Forklift	2019	Yale		22,500.00		
25	Joel	8340 - Transmission & Distribution	7250	Other Equipment	Bobcat Sweeper/Bucket	2019	Bobcat		43,934.00		
26	Joe D.	8330 - Purification	7250	Other Equipment	Fridge				1,500.00		
27	Joe D.	8330 - Purification	7250	Other Equipment	Incubator				3,000.00		
28	Steve A & P	8340 - Transmission & Distribution	7250	Other Equipment	Mower & Weedwacker				-		
29	Amy	8320 - Source of Supply, Power	7250	Other Equipment	Gator style airboat				80,000.00		
<b>Total</b>									<b>880,630.00</b>		

Budget Code	Task Name	Assigned	Cost	2018	2019	2020	2021	2022
7511	Supply Reservoir			\$165,000		\$100,000	\$100,000	\$100,000
7511	Supply Reservoir Improvements - General			\$35,000				\$100,000
7511	Alcove & Basic Buildings - Planning & Design	Joe C						
7511	Alcove Gate Rehab Engineering							
7511	Alcove Spillway Investigations				\$100,000			
7511	Alcove Spillway Design							
7511	Alcove Spillway Engineering - Construction Phase			\$10,000			\$100,000	
7511	Basic Creek Exploratory Diving			\$80,000				
7511	Basic Creek Preliminary Design			\$15,000				
7511	Three Mile Inspection and Study			\$25,000				
7511	Six Mile Grouting Tunnel			\$50,000		\$50,000	\$50,000	\$50,000
7512	Supply Conduit			\$100,000		\$50,000	\$50,000	\$50,000
7512	Condition Assessment - Internal inspection			\$0				
7512	Condition Assessment - Roof and Valve Operators	Rebecca			\$50,000			\$50,000
7530	Filtration Plant							
7530	Filtration Plant - General Improvements			\$650,000	\$100,000	\$100,000	\$100,000	\$100,000
7540	Distribution System			\$100,000		\$100,000	\$100,000	\$100,000
7540	Condition Assessment for Asset Management			\$400,000		\$850,000	\$850,000	\$850,000
7540	Water main program							
7540	Shaker Park Water Main				\$400,000	\$500,000	\$500,000	\$500,000
7540	Church Street	Neil O						
7540	Commerce - Industrial to Terminal	Neil O						
7540	Washington Avenue near City Hall							
7540	Winnie							
7540	Crescent							
7540	Hackett 16-inch extended to Myrtle							
7540	Clinton Ave 12-inch Robin to Quail			\$100,000	\$200,000	\$200,000	\$200,000	\$200,000
7540	Valve program							
7540	24-inch butterfly Elbel Court, Flowmeter replacement			\$50,000	\$100,000	\$150,000	\$150,000	\$150,000
7540	PRV program - Trimble?, Mueller?	Joe D						
7540	Two 16-inch replacements							
7540	Second Avenue & Sloan							
7540	Corning Preserve Relief Valve							
7540	McCormack Rd @ Sewage PS			\$220,000		\$200,000	\$200,000	\$200,000
7555	Loudonville Reservoir			\$50,000				
7555	Catchhouse A/B Removals - HVAC, Sprinkler			\$20,000				
7555	Gate House C Fall Safety Improvements			\$50,000				
7555	Basin C Inlet Improvements	Rebecca		\$100,000		\$200,000	\$200,000	\$200,000
7555	Basin Repairs - One basin cleaned and repaired each year	William		\$90,000	\$180,000	\$180,000	\$180,000	\$180,000
7555	Engineering - design through construction			\$50,000		\$50,000	\$50,000	\$50,000
7555	Construction			\$50,000	\$100,000			
7556	Pumping Stations - Water							
7556	Pump Stations - General Improvements			\$100,000		\$20,000	\$20,000	\$20,000
7556	Pine Bush Pump Station building renovations - HVAC Engineering			\$90,000	\$180,000	\$180,000	\$180,000	\$180,000
7556	Pine Bush Pump Station - Construction			\$50,000		\$50,000	\$50,000	\$50,000
7556	Pine Bush Tank	Rebecca C		\$50,000	\$100,000			
7556	Upper Service Pump Station							
7556	Upper Service Tank							
7556	Colvin Avenue Pump Station							
7556	Harriman Tank							
7570	Engineering Fees - Water - Official Consultant			\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
7580	Eric Blvd & 10 North Enterprise			\$65,000		\$105,000	\$105,000	\$105,000
7580	Generators & Transfer Switches - Feura Bush A1S	Joe D		\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
7580	Security	Brian H		\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
7580	10 North Enterprise				\$25,000	\$25,000	\$25,000	\$25,000
7580	35 Eric				\$15,000	\$15,000	\$15,000	\$15,000
7590	Contingency - Water			\$15,000	\$75,000	\$75,000	\$75,000	\$75,000
7595	Computers			\$430,000		\$20,000	\$20,000	\$20,000





7556 Water Pump Stations and Tanks	\$0	\$0	\$0	\$0	\$0
7556 Pine Bush	\$100,000	\$0	\$0	\$0	\$0
7556 Upper Service	\$100,000	\$0	\$0	\$0	\$0
7610 Sewer Separation					
7610 Hackett & Sheridan Flood Mitigation Engineers Report					
7620 Sewer Rehabilitation					
7620 Trunk sewer repairs - Warren Street brick sewers					
7620 Long Term Control Plan - CWSRF	\$39,036,870	\$3,943,296	\$12,205,440	\$14,772,690	\$14,772,690
7620 Administrative	\$4,260,168	\$176,040	\$176,040	\$176,040	\$396,090
7620 Administrative Costs & PCMP	\$176,040	\$176,040	\$176,040	\$176,040	\$396,090
7620 BMPs/System Optimization	\$1,056,240	\$0	\$0	\$0	\$0
7620 Remove Liberty Overflow - Albany					
7620 Remove Schuyler Overflow - Albany					
7620 Modify Bouck Regulator - Albany					
7620 Improvements to 11 Regulators - Cohoes					
7620 Swan Street & Hamilton Street Regulators - Green Island					
7620 Improvements to 5 Regulators - Watervliet					
7620 Outside Community Metering - Remnschler County					
7620 18th Street Weir Improvements - Troy	\$1,056,240				
7620 System Separation/Stormwater Storage					
7620 Mariette Place - Albany	\$721,764	\$1,525,680	\$293,400	\$2,640,600	
7620 Merchine Avenue - Albany					
7620 Vliet Street - Cohoes	\$17,604	\$340,344	\$58,680	\$1,015,164	
7620 Manor Ave - Cohoes					
7620 Columbia Street Phase II - Cohoes					
7620 George Street - Cohoes					
7620 Middle Vliet - Cohoes					
7620 123rd Street - Troy	\$146,700	\$1,185,336	\$146,700	\$1,185,336	
7620 Van Buren Street - Troy					
7620 Polk Street Stream Separation - Troy					
7620 Hoosick Street - Troy	\$557,460		\$58,680	\$146,700	\$1,155,996
7620 Green Infrastructure	\$0	\$0	\$0	\$0	\$0
7620 GI Technical Design Guidance					
7620 GI Reporting					
7620 GI Banking					
7620 Route 32 GIP - Watervliet					
7620 Satellite Treatment and/or Floatable Control Facilities	\$2,229,840	\$2,171,160	\$11,736,000	\$11,736,000	\$11,736,000
7620 Big C Disinfection & Floatables Control - Albany	\$117,360	\$58,680	\$11,736,000	\$11,736,000	\$11,736,000
7620 Floatables Control Facility - Maiden, Steuben, Orange - Albany	\$1,056,240	\$1,056,240			
7620 Floatables Control Facility - Quakerbush, Jackson, Livingston - Albany	\$1,056,240	\$1,056,240			
7620 Floatables Control Facility - Little C - Cohoes					
7620 Tributary Enhancements	\$0	\$0	\$0	\$0	\$0
7620 Investigate Tributaries - Mill Creek, Poesstskill, Wymanskill - Troy					
7620 Cross Street Phase III - Troy					
7620 Additional Pool-Wide Projects	\$76,284	\$70,416	\$0	\$0	\$0
7620 Hudson River Water Quality Public Advisory System	\$76,284	\$70,416	\$0	\$0	\$0
7620 Sewer Asset Management Plan					
7620 Upper Washington Corridor Project - 2016-2018 - CWSRF & DWSRF	\$8,360,000	\$0	\$0	\$0	\$0
7630 Harriman Sewage Pump Station & Force Main to Tremont Street	\$5,345,000				
7620 Tremont Street & Central Ave Sewers to Russell Rd Metering Sta	\$515,000				
7556 Water Booster Pump Station & Tank	\$2,500,000				
7620 Elberon, Hansen & Ryckman - 2016-2017 - CWSRF	\$0	\$0	\$0	\$0	\$0
7620 Hansen & Ryckman					
7620 Elberon Place					
7620 Hansen Water Reuse					
7540 Town of Colonie Interconnections - CWSRF	\$1,600,000				
7540 Design Phase					

7540 Construction Phase  
 7580 10 North Enterprise & 35 Eric  
 7530 Feura Bush Renovations - DWSRF 18378 \$2,615,650  
 7530 Office & Lab Renovations, Hypo Conversion, Fuel Storage, HVAC

Joe C

Rebecca C

\$500,000  
 \$2,180,000  
 \$2,180,000  
 \$21,906,168  
 \$21,906,168

\$2,050,000  
 \$17,722,296  
 \$17,722,296

\$300,000  
 \$18,366,276  
 \$18,366,276  
 \$19,525,440  
 \$17,724,690  
 \$17,724,690

TOTAL

Cash Check

	2015	2016	2017	2018	2019	2020	2021	2022	2023
	<b>Audited</b>	<b>Audited</b>	<b>Audited</b>	<b>Forecasted</b>	<b>Budget</b>	<b>Forecasted</b>	<b>Forecasted</b>	<b>Forecasted</b>	<b>Forecasted</b>
Water Charges	38,577,580.00	36,097,860.00	33,356,509.83	34,459,260.81	34,600,000.00	35,700,000.00	36,700,000.00	37,100,000.00	37,500,000.00
Investment Earnings			352,126.36	275,000.00	300,000.00	300,000.00	300,000.00	300,000.00	300,000.00
<b>Total Revenue</b>	<b>38,577,580.00</b>	<b>36,097,860.00</b>	<b>33,708,636.19</b>	<b>34,734,260.81</b>	<b>34,900,000.00</b>	<b>36,000,000.00</b>	<b>37,000,000.00</b>	<b>37,400,000.00</b>	<b>37,800,000.00</b>
Personnel services	6,205,048.48	5,797,244.62	6,718,951.87	6,430,743.58	8,769,424.69	8,922,889.63	9,079,040.19	9,237,923.40	9,399,587.06
Equipment	43,572.76	44,656.53	43,572.76	20,000.00	20,630.00	20,991.03	21,358.37	21,732.14	22,112.45
Contractual and other expenses	4,929,635.69	4,362,660.20	4,929,635.69	5,003,837.73	5,323,050.00	5,416,203.38	5,510,986.93	5,607,429.21	5,705,559.22
Benefits	1,953,258.83	1,773,099.14	1,439,355.44	2,008,426.99	2,198,781.70	2,237,260.38	2,276,412.44	2,316,249.66	2,356,784.02
Taxes Paid to Municipalities	1,978,680.90	1,945,030.30	1,978,680.90	1,912,758.00	1,800,000.00	1,831,500.00	1,863,551.25	1,896,163.40	1,929,346.26
County Sewer Contract	6,181,905.33	6,214,036.00	6,181,905.33	6,314,673.00	6,500,000.00	6,613,750.00	6,729,490.63	6,847,256.71	6,967,083.70
Contingencies, Insurance and Other	3,523,389.93	3,745,451.06	3,523,389.93	4,189,146.94	4,716,829.08	4,799,373.58	4,883,362.62	4,968,821.47	5,055,775.84
<b>Total Operating Expenses</b>	<b>24,815,491.92</b>	<b>23,882,177.85</b>	<b>24,815,491.92</b>	<b>25,879,586.24</b>	<b>29,328,715.47</b>	<b>29,841,967.99</b>	<b>30,364,202.43</b>	<b>30,895,575.97</b>	<b>31,436,248.55</b>
<b>Net Operating Margin</b>	<b>13,762,088.08</b>	<b>12,215,682.15</b>	<b>8,893,144.27</b>	<b>8,854,674.57</b>	<b>5,571,284.53</b>	<b>6,158,032.01</b>	<b>6,635,797.57</b>	<b>6,504,424.03</b>	<b>6,363,751.45</b>
<i>Adjust for Capitalization</i>				<i>1,500,000.00</i>	<i>1,500,000.00</i>	<i>1,500,000.00</i>	<i>1,500,000.00</i>	<i>1,500,000.00</i>	<i>1,500,000.00</i>
<b>Adjusted Net Operating Margin</b>	<b>13,762,088.08</b>	<b>12,215,682.15</b>	<b>8,893,144.27</b>	<b>10,354,674.57</b>	<b>7,071,284.53</b>	<b>7,658,032.01</b>	<b>8,135,797.57</b>	<b>8,004,424.03</b>	<b>7,863,751.45</b>
<b>Debt Service</b>	<b>6,373,688.34</b>	<b>6,388,521.40</b>	<b>5,681,608.30</b>	<b>4,797,969.70</b>	<b>5,084,846.08</b>	<b>5,060,598.36</b>	<b>5,038,376.44</b>	<b>5,327,917.72</b>	<b>978,222.10</b>
<b>DSCR</b>	<b>1:2.16</b>	<b>1:1.91</b>	<b>1:1.57</b>	<b>1:2.16</b>	<b>1:1.39</b>	<b>1:1.51</b>	<b>1:1.61</b>	<b>1:1.5</b>	<b>1:8.04</b>

Residential Users	Current	@ 2% Increase	Change
<i>Min. Charge</i>	<i>69.82</i>	<i>71.22</i>	<i>1.40</i>
<b>Annual @ Min.</b>	<b>209.46</b>	<b>213.65</b>	<b>4.19</b>
<i>Avg. Bill</i>	<i>218.86</i>	<i>223.24</i>	<i>4.38</i>
<b>Annual @ Avg.</b>	<b>656.58</b>	<b>669.71</b>	<b>13.13</b>

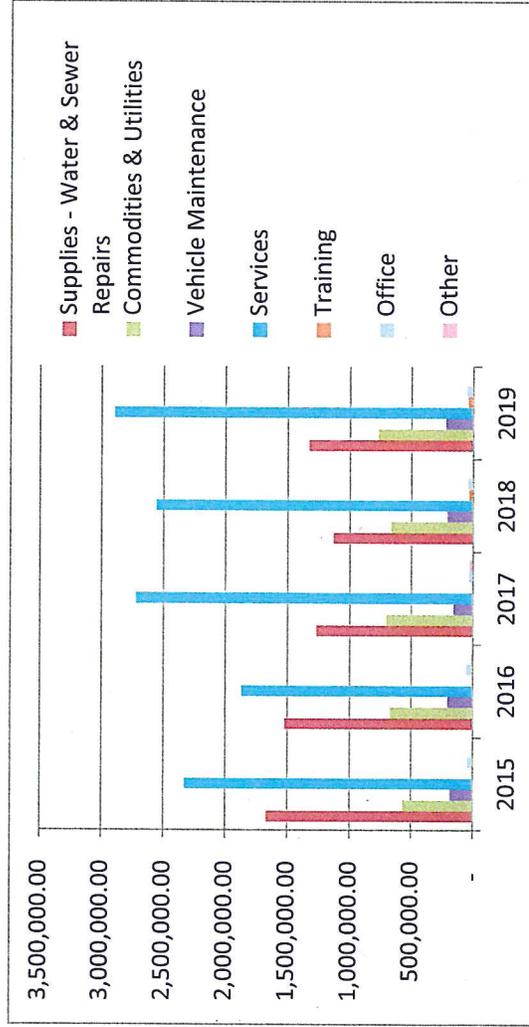
Revenue Rate increase 2% in 2019, 2020 and 2021  
Revenue consumption increases for new development 2022 - 2023 ~1%/yr.

Operating Expenses base = 2019 expenses, which are built from bottom up  
2020 - 2023 operating expenses increase for inflation at 1.75%

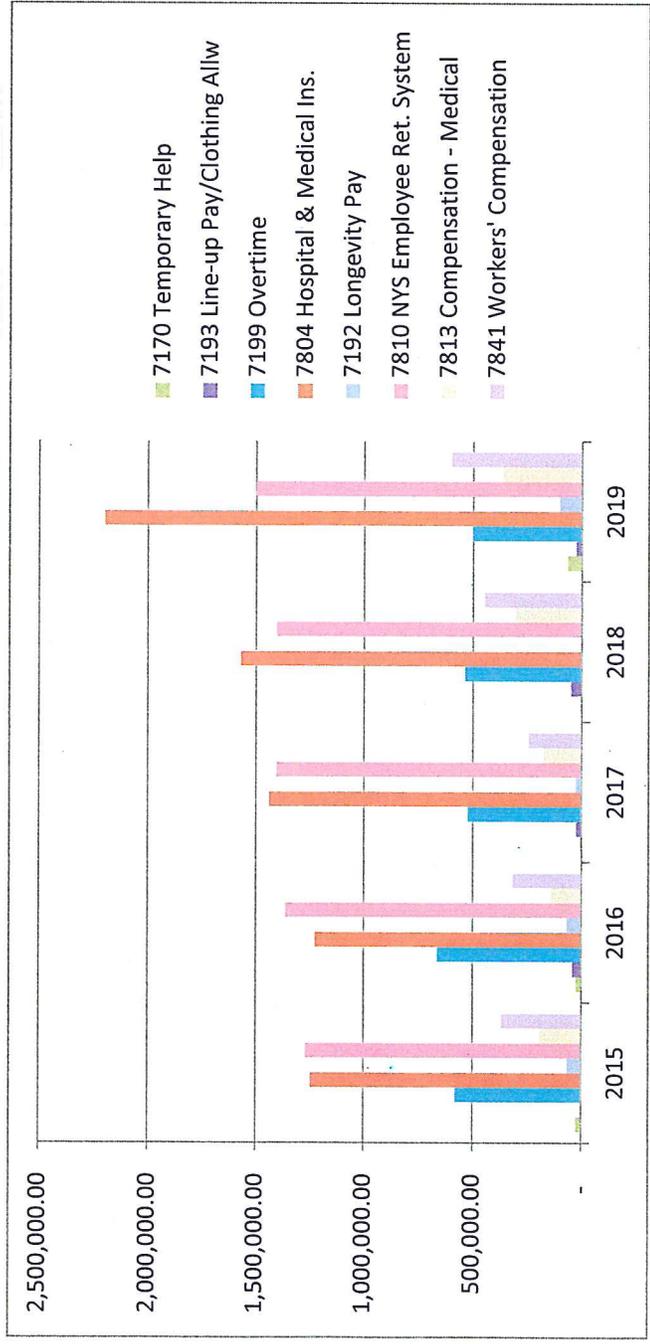
"Adjust for Capitalization" = Major repairs or system improvements that would be capitalized and excluded from the Debt Service Coverage Ratio calculation.

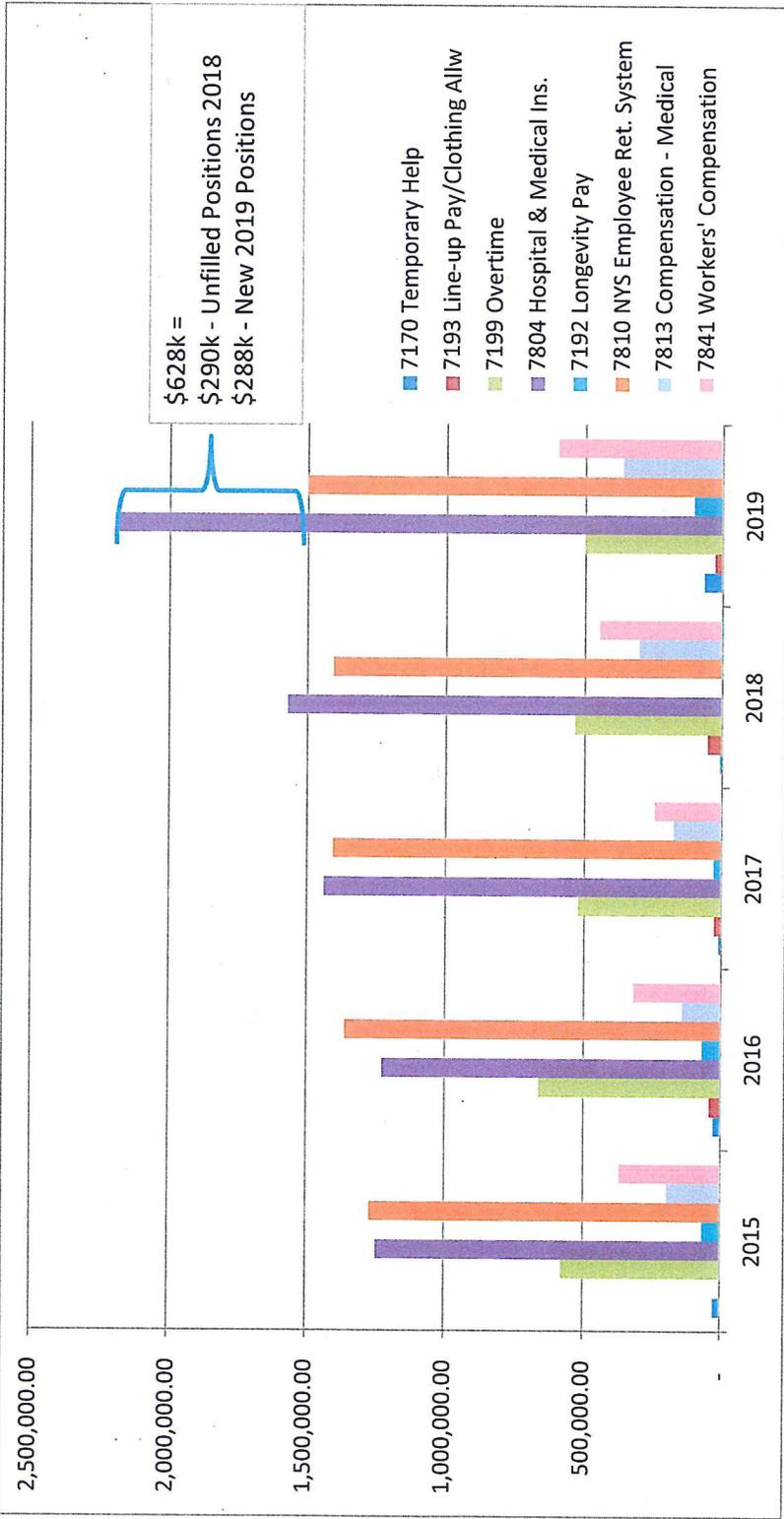
Det. Group	2015	2016	2017	2018	2019
	Actual	Actual	Actual	Forecasted	Budget
Supplies - Water & Sewer Repairs	1,669,818.87	1,522,069.48	1,267,629.91	1,133,509.04	1,329,500.00
Commodities & Utilities	571,135.66	673,892.24	704,139.00	667,437.74	770,000.00
Vehicle Maintenance	188,962.17	209,707.43	158,475.86	210,663.20	225,000.00
Services	2,330,645.10	1,871,211.07	2,724,719.99	2,558,823.70	2,897,500.00
Training	4,943.00	10,649.04	9,667.08	36,182.24	42,150.00
Office	46,921.39	56,336.51	35,641.22	45,218.80	55,000.00
Other	4,147.04	15,635.90	29,362.63	1,676.54	3,900.00
<b>Total</b>	<b>4,816,573.23</b>	<b>4,359,501.67</b>	<b>4,929,635.69</b>	<b>4,653,511.26</b>	<b>5,323,050.00</b>

**YOY Change** (457,071.56) 570,134.02 (276,124.43) 669,538.74



GL # - Child	GL Description (Detail)	2015 Actual	2016 Actual	2017 Actual	2018 Forecasted	2019 Budget	2018 - 2019 Changes
7170	Temporary Help	26,223.50	26,488.25	9,712.35	7,616.40	67,012.00	779.8%
7193	Line-up Pay/Clothing Allw	-	42,200.00	27,040.00	52,224.00	27,760.00	-46.8%
7199	Overtime	580,724.97	663,134.16	522,247.51	535,625.47	502,250.00	-6.2%
7804	Hospital & Medical Ins.	1,246,600.03	1,225,814.54	1,439,355.44	1,571,245.37	2,198,781.70	39.9%
7192	Longevity Pay	67,125.00	68,425.00	28,925.00	3,480.00	104,775.00	2910.8%
7810	NYS Employee Ret. System	1,270,082.00	1,362,597.00	1,406,446.00	1,406,446.00	1,500,000.00	6.7%
7813	Compensation - Medical	195,304.56	141,129.96	174,692.50	303,190.90	363,829.08	20.0%
7841	Workers' Compensation	369,629.65	318,585.48	245,580.67	448,400.11	600,000.00	33.8%
<b>Total</b>		<b>3,755,689.71</b>	<b>3,848,374.39</b>	<b>3,853,999.47</b>	<b>4,328,228.25</b>	<b>5,364,407.78</b>	<b>1,036,179.53</b>
<b>YoY \$'s</b>			<b>92,684.68</b>	<b>5,625.08</b>	<b>474,228.78</b>	<b>1,036,179.53</b>	<b>561,950.75</b>
<b>YoY %</b>			<b>2.47%</b>	<b>0.15%</b>	<b>12.30%</b>	<b>23.94%</b>	<b>118.5%</b>





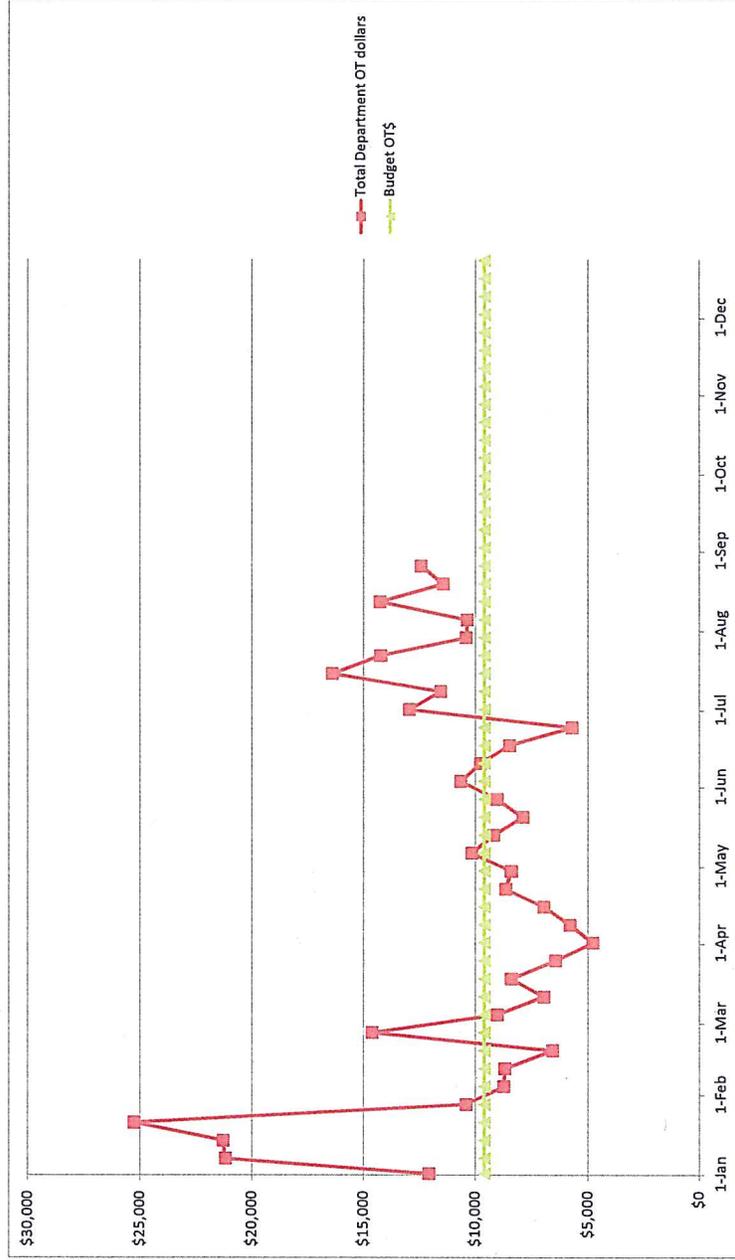




Department of Water and Water Supply - 2018 Key Performance Indicators and Critical Numbers Dashboard														
Parameter	Annual Goal or YTD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
		well over goal	at goal	caution	unacceptable - corrective action required									
Alcove Elevation (first of month)	MTD/YTD	611.43	612.38	614.40	617.34	618.31	617.84	616.56	615.08	616.89				
% capacity		76.1%	79.3%	86.5%	97.5%	100.00%	99.4%	94.48%	88.99%	95.73%				
% average month (period of record)		94.0%	95.6%	93.6%	100.4%	105.6%	106.7%	106.00%	109.14%	127.67%				
spill days		0	0	0	25	24	0	0	0	0				
Water Produced														
Monthly total (million gallons)	4391.529	555.703	490.636	529.472	511.348	535.041	565.216	621.965	582.148					4391.529
Daily average (MGD)	18.064	17.926	17.523	17.080	17.044	17.259	18.841	20.063	18.779					18.064
ACSD monthly avg flow (MGD)														
contracted flow 27 MGD		21.02	24.31	26.77	23.70	21.65	18.11	20.34	26.73					
south plant total		24.69	28.25	30.82	27.79	25.67	21.92	24.47	31.01					
Sewer PM														
Total LF Cleaned	237456	4863	8359	29130	46013	50903	47622	22917	27649					237456
PM LF Cleaned	197870	1954	4805	25650	38631	46202	44170	13871	22587					197870
LF Camera Inspected	23439	418	760	3032	5519	2338	921	5806	4645					23439
Leak Detection														
Blocks Tested	586	66	160	108	0	0	120	110	22					586
Leaks Detected	14	1	2	3	0	0	2	4	2					14
Orions Installed	169	29	21	38	28	26	8	12	7					169

week budget OT\$ weekly OT\$

1-Jan	\$9,615	\$12,080
7-Jan	\$9,615	\$21,194
14-Jan	\$9,615	\$21,294
21-Jan	\$9,615	\$25,278
28-Jan	\$9,615	\$10,427
4-Feb	\$9,615	\$8,740
11-Feb	\$9,615	\$8,700
18-Feb	\$9,615	\$6,586
25-Feb	\$9,615	\$14,617
4-Mar	\$9,615	\$9,032
11-Mar	\$9,615	\$6,970
18-Mar	\$9,615	\$8,424
25-Mar	\$9,615	\$6,456
1-Apr	\$9,615	\$4,779
8-Apr	\$9,615	\$5,802
15-Apr	\$9,615	\$6,965
22-Apr	\$9,615	\$8,661
29-Apr	\$9,615	\$8,414
6-May	\$9,615	\$10,170
13-May	\$9,615	\$9,193
20-May	\$9,615	\$7,896
27-May	\$9,615	\$9,027
3-Jun	\$9,615	\$10,667
10-Jun	\$9,615	\$9,774
17-Jun	\$9,615	\$8,495
24-Jun	\$9,615	\$5,701
1-Jul	\$9,615	\$12,954
8-Jul	\$9,615	\$11,551
15-Jul	\$9,615	\$16,395
22-Jul	\$9,615	\$14,228
29-Jul	\$9,615	\$10,421
5-Aug	\$9,615	\$10,365
12-Aug	\$9,615	\$14,265
19-Aug	\$9,615	\$11,430
26-Aug	\$9,615	\$12,429
2-Sep	\$9,615	
9-Sep	\$9,615	
16-Sep	\$9,615	
23-Sep	\$9,615	
30-Sep	\$9,615	
7-Oct	\$9,615	
14-Oct	\$9,615	
21-Oct	\$9,615	
28-Oct	\$9,615	
4-Nov	\$9,615	
11-Nov	\$9,615	
18-Nov	\$9,615	
25-Nov	\$9,615	
2-Dec	\$9,615	
9-Dec	\$9,615	
16-Dec	\$9,615	
23-Dec	\$9,635	
<b>total</b>	<b>\$500,000</b>	<b>\$379,380</b>





Hugh  
Johnson  
Advisors

September 18, 2018

**Invoice for Services:**

**Please remit to:**

Hugh Johnson Advisors LLC  
80 State Street, 4<sup>th</sup> Floor  
Albany, NY 12207  
**Attn: Rozanne Summerson**

Thomas Dufresne  
Chief Fiscal Officer  
City of Albany  
Department of Water & Water Supply  
10 North Enterprise Drive  
Albany, NY 12204

Investment Advisory Services for the Albany Water Board for the period 7/1/18 - 9/30/18 at an annual fee of \$9,875.00

**Total Quarterly Amount Due .....\$2,468.75**

**PAYMENT DUE**

*Please return Payment within 30 days of the invoice date.*

**\*\*Please make checks payable to Hugh Johnson Advisors LLC\*\***

**DRAFT FOR DISCUSSION PURPOSES ONLY  
DATED: APRIL 30, 2018**

**COMBINED SEWER OVERFLOW  
LONG TERM CONTROL PLAN  
FINANCING INTER-MUNICIPAL AGREEMENT**

This Inter-Municipal Agreement (“Agreement”) is dated [\_\_\_\_\_, 2018] and entered into by and among the CITY OF ALBANY, by the ALBANY WATER BOARD and the ALBANY MUNICIPAL WATER FINANCE AUTHORITY (“Albany”), the CITY OF COHOES (“Cohoes”), the VILLAGE OF GREEN ISLAND (“Green Island”), the CITY OF TROY (“Troy”), the CITY OF RENSSELAER (“Rensselaer”), and the CITY OF WATERVLIET (“Watervliet”).

**RECITALS**

WHEREAS, Albany, Cohoes, Green Island, Troy, Rensselaer, and Watervliet have determined and agreed to participate in the provision of a joint sewer project and to contract indebtedness severally therefor in accordance with Section 15.00 of the New York Local Finance Law (the “Law”) pursuant to a municipal cooperation agreement for the implementation of a Combined Sewer Overflow Long Term Control Plan (“LTCP”); and

WHEREAS, Article 5-G of the New York General Municipal Law (the “General Municipal Law”) authorizes municipal corporations to perform their functions, duties and powers on a cooperative basis with other municipal corporations pursuant to municipal cooperation agreements; and

WHEREAS, Title 1-A of Article 2 of the Law authorizes municipal corporations to finance on a joint or several basis certain water, sewage or drainage projects that such municipal corporations have agreed to undertake jointly on a cooperative basis pursuant to Article 5-G of the General Municipal Law; and

WHEREAS, each of Albany, Cohoes, Green Island, Troy, Rensselaer, and Watervliet (collectively, the “Albany Pool Communities” or the “Parties”) entered a Municipal Cooperation Agreement dated January 1, 2007 to prepare the LTCP for submission to, and approval by, the New York State Department of Environmental Conservation (“NYSDEC”); and

WHEREAS, the Albany Pool Communities and NYSDEC entered an administrative Order on Consent dated January 15, 2014 (the “Consent Order”), and NYSDEC approved the Albany Pool Communities’ LTCP simultaneously with its execution of the Consent Order; and

WHEREAS, the Albany Pool Communities entered into an inter-municipal agreement (the “LTCP Intermunicipal Agreement”) dated February 25, 2015 pursuant to the Consent Order, to provide for the implementation of the LTCP by the Albany Pool Communities, to establish the Albany Pool Communities’ respective responsibilities with regard to the implementation of the LTCP, to assist the Albany Pool Communities in implementing the LTCP, to provide for the creation of the Albany CSO Pool Communities Corporation (the “Corporation”), and to authorize the financing of all, or a portion, of the costs of the LTCP pursuant to the issuance of debt by the Albany Pool Communities; and

WHEREAS, the Albany Pool Communities wish to enter this inter-municipal agreement pursuant to the LTCP Intermunicipal Agreement, in order to (1) provide for the payment of certain “catch-up

payments” (as hereinafter defined), (2) provide of pro rata contributions to the debt service payments of the bonds issued by (a) Cohoes on [\_\_\_\_\_, 201\_] to finance a portion of the LTCP (the “Cohoes Bonds”) and (b) Rensselaer on [\_\_\_\_\_, 201\_] to finance a portion of the LTCP (the “Rensselaer Bonds”) and (3) designate the Corporation as the paying agent for collection and distribution of such “catch-up” payments; and

**NOW, THEREFORE**, in consideration of the above and the promises and the mutual covenants and conditions contained in this Agreement, the Parties agree as follows.

## **ARTICLE 1 DEFINITIONS AND INTERPRETATION**

**SECTION 1.1 DEFINITIONS.** As used in this Agreement, the following terms shall have the meanings set forth below.

(A) “Albany” means the City of Albany, which is represented in this Agreement, and as to all matters to be performed pursuant to this Agreement, by the Albany Water Board.

(B) “Albany Pool Communities” or “Parties” means Albany, Cohoes, Green Island, Troy, Rensselaer, and Watervliet.

(C) “Allocation Formula” means the percentages of total payments to be paid by each of the Albany Pool Communities, as set forth in Section 4.2, below.

(D) “Bonds” means, collectively, the Cohoes Bonds and the Rensselaer Bonds, as described in Schedules B, C and D attached hereto.

(E) “Business Day” means any day other than (1) a Saturday or Sunday; (2) a day on which the banks located in Albany, New York are required by law or executive order to be closed; or (3) a day on which the New York Stock Exchange is closed.

(F) “Catch-up Payments” means the payments described in Schedule A attached hereto.

(G) “Cohoes” means the City of Cohoes, New York.

(H) “Cohoes Bonds” means the bonds issued by Cohoes on [\_\_\_\_\_, 201\_] in the original aggregate principal amount of [\$\_\_\_\_\_\_] to finance the LTCP, as described in Schedule B attached hereto.

(I) “Corporation” means the Albany CSO Pool Communities Corporation, a not-for-profit New York corporation duly created pursuant to the LTCP Intermunicipal Agreement.

(J) “CSO” means combined sewer overflow.

(K) “Debt Service Payments” means each Parties percentage share, as determined by the Allocation Formula, of the debt service payments on the Bonds, as described in Schedule D attached hereto.

(L) “Defaulting Party” means a party in default of any obligation under this Agreement, as specified in Section 4.5.

(M) "EFC" means the New York State Environmental Facilities Corporation.

(N) "Green Island" means the Village of Green Island, New York.

(O) "Governmental Body" means any governmental department, commission, board, regulatory authority, bureau, legislative body, agency, or instrumentality of any federal, state, local, or municipal government or domestic court.

(P) "Long Term Control Plan" or "LTCP" means the Albany Pool CSO Long Term Control Plan dated June 30, 2011 together with the Albany Pool CSO Long Term Control Plan Supplemental Documentation, dated October 2013, as both were approved by the NYSDEC on January 15, 2014 by letter from Koon Tang of the NYSDEC to the Albany Pool Communities, as well as any amendments or revisions to those documents that may be made from time to time and approved in writing by the NYSDEC.

(Q) "LTCP Intermunicipal Agreement" means the inter-municipal agreement dated February 25, 2015 entered into by the Albany Pool Communities pursuant to the Consent Order, to provide for the implementation of the LTCP by the Albany Pool Communities, to establish the Albany Pool Communities' respective responsibilities with regard to the implementation of the LTCP, to assist the Albany Pool Communities in implementing the LTCP, to provide for the creation of the Corporation, and to authorize the financing of all, or a portion, of the costs of the LTCP pursuant to the issuance of debt by the Albany Pool Communities.

(R) "NYSDEC" means the New York State Department of Environmental Conservation.

(S) "Consent Order" means the administrative Order on Consent between the Albany Pool Communities, the Albany and Rensselaer County Sewer Districts, and NYSDEC, dated January 15, 2014, including all appendices thereto, and any revisions, amendments, or other modifications thereto, as may be approved in writing by the Parties and NYSDEC from time to time.

(T) "Party" means any single party to this Agreement.

(U) "Planning Commission" or "CDRPC" means the Capital District Regional Planning Commission, having an office at One Park Place, Suite 102, Albany, New York 12205.

(V) "Rensselaer" means the City of Rensselaer, New York.

(W) "Rensselaer Bonds" means the bonds issued by Rensselaer on [\_\_\_\_\_, 201\_] in the original aggregate principal amount of [\$\_\_\_\_\_] to finance the LTCP, as described in Schedule C attached hereto.

(X) "State" means the State of New York.

(Y) "Troy" means the City of Troy, New York.

(Z) "Watervliet" means the City of Watervliet, New York.

**SECTION 1.2. INTERPRETATION.** In this Agreement, unless the context otherwise requires:

(A) The terms "hereby," "hereof," "herein," "hereunder," and any similar terms refer to this

Agreement, and the term “hereafter” means after, and the term “heretofore” means before, the date of this Agreement. References herein to any “Article” shall be an Article of this Agreement unless otherwise specified.

(B) Words importing the singular number mean and include the plural number and vice versa.

(C) Words referring to persons include firms, companies, associations, general partnerships, limited partnerships, trusts, business trusts, corporations, and other legal entities, including public bodies, as well as individuals.

(D) The table of contents and any headings preceding the text of the Articles of this Agreement shall be solely for convenience of reference and shall not constitute a part of this Agreement, nor shall they affect its meaning, construction, or effect.

## **ARTICLE 2 REPRESENTATIONS AND WARRANTIES**

**SECTION 2.1. ALBANY REPRESENTATIONS AND WARRANTIES.** Albany hereby represents and warrants to each of the Albany Pool Communities and the Planning Commission that:

(A) Albany is a municipal corporation validly existing under the Constitution and laws of the State, with full legal right, power, and authority to enter into and perform its obligations under this Agreement. Albany is represented as to all matters in this Agreement by the Albany Water Board, which is a water board validly existing under the Constitution and laws of the State, with full legal right, power, and authority to enter into and perform its obligations and the obligations of Albany under this Agreement.

(B) Albany has duly authorized the execution and delivery of this Agreement, and this Agreement has been duly executed and delivered by the Albany Water Board and constitutes the legal, valid, and binding obligation of Albany, enforceable against Albany in accordance with its terms except insofar as such enforcement may be affected by bankruptcy, insolvency, moratorium and other laws affecting creditors’ rights generally.

(C) Neither the execution nor the delivery by Albany of this Agreement nor the performance by Albany of its obligations hereunder (1) conflicts with, violates or results in a breach of any law or governmental regulation applicable to Albany, or (2) conflicts with, violates or results in a breach of any term or condition of any judgment, decree, agreement or instrument to which Albany is a party or by which Albany or any of its properties or assets are bound, or constitutes a default under any such judgment, decree, agreement or instrument.

(D) No approval, authorization, order or consent of, or declaration, registration or filing with any Governmental Body is required for the valid execution and delivery by Albany of this Agreement, except such as have been duly obtained or made. No ordinance must be enacted by Albany or any other Governmental Body in order for this Agreement to be carried out.

(E) Albany has no knowledge of any applicable law in effect on the date as of which this representation is being made which would prohibit the performance by Albany of this Agreement and the transactions contemplated hereby.

(F) There is no action, suit or other proceeding, at law or in equity, before or by any court or

Governmental Body, pending, or, to Albany's best knowledge, threatened against Albany wherein an unfavorable decision, ruling or finding would materially and adversely affect the validity or enforceability of this Agreement or any other agreement or instrument to be entered into by Albany in connection with the transaction contemplated hereby, or which would materially and adversely affect the performance by Albany of its obligations hereunder or under any such other agreement or instrument.

**SECTION 2.2. COHOES REPRESENTATIONS AND WARRANTIES.** Cohoes hereby represents and warrants to each of the other Albany Pool Communities and the Planning Commission that:

(A) Cohoes is a municipal corporation validly existing under the Constitution and laws of the State, with full legal right, power, and authority to enter into and perform its obligations under this Agreement.

(B) Cohoes has duly authorized the execution and delivery of this Agreement, and this Agreement has been duly executed and delivered by Cohoes and constitutes the legal, valid and binding obligation of Cohoes, enforceable against Cohoes in accordance with its terms except insofar as such enforcement may be affected by bankruptcy, insolvency, moratorium and other laws affecting creditors' rights generally.

(C) Neither the execution nor the delivery by Cohoes of this Agreement nor the performance by Cohoes of its obligations hereunder (1) conflicts with, violates or results in a breach of any law or governmental regulation applicable to Cohoes, or (2) conflicts with, violates or results in a breach of any term or condition of any judgment, decree, agreement or instrument to which Cohoes is a party or by which Cohoes or any of its properties or assets are bound, or constitutes a default under any such judgment, decree, agreement or instrument.

(D) No approval, authorization, order or consent of, or declaration, registration or filing with any Governmental Body is required for the valid execution and delivery by Cohoes of this Agreement, except such as have been duly obtained or made. No ordinance must be enacted by Cohoes or any other Governmental Body in order for this Agreement to be carried out.

(E) Cohoes has no knowledge of any applicable law in effect on the date as of which this representation is being made which would prohibit the performance by Cohoes of this Agreement and the transactions contemplated hereby.

(F) There is no action, suit or other proceeding, at law or in equity, before or by any court or Governmental Body, pending, or, to Cohoes' best knowledge, threatened against Cohoes wherein an unfavorable decision, ruling or finding would materially and adversely affect the validity or enforceability of this Agreement or any other agreement or instrument to be entered into by Cohoes in connection with the transaction contemplated hereby, or which would materially and adversely affect the performance by Cohoes of its obligations hereunder or under any such other agreement or instrument.

**SECTION 2.3. GREEN ISLAND REPRESENTATIONS AND WARRANTIES.** Green Island hereby represents and warrants to each of the other Albany Pool Communities that:

(A) Green Island is a municipal corporation validly existing under the Constitution and laws of the State, with full legal right, power, and authority to enter into and perform its obligations under this Agreement.

(B) Green Island has duly authorized the execution and delivery of this Agreement, and this

Agreement has been duly executed and delivered by Green Island and constitutes the legal, valid and binding obligation of Green Island, enforceable against Green Island in accordance with its terms except insofar as such enforcement may be affected by bankruptcy, insolvency, moratorium and other laws affecting creditors' rights generally.

(C) Neither the execution nor the delivery by Green Island of this Agreement nor the performance by Green Island of its obligations hereunder (1) conflicts with, violates or results in a breach of any law or governmental regulation applicable to Green Island, or (2) conflicts with, violates or results in a breach of any term or condition of any judgment, decree, agreement or instrument to which Green Island is a party or by which Green Island or any of its properties or assets are bound, or constitutes a default under any such judgment, decree, agreement or instrument.

(D) No approval, authorization, order or consent of, or declaration, registration or filing with any Governmental Body is required for the valid execution and delivery by Green Island of this Agreement, except such as have been duly obtained or made. No ordinance must be enacted by Green Island or any other Governmental Body in order for this Agreement to be carried out.

(E) Green Island has no knowledge of any applicable law in effect on the date as of which this representation is being made which would prohibit the performance by Green Island of this Agreement and the transactions contemplated hereby.

(F) There is no action, suit or other proceeding, at law or in equity, before or by any court or Governmental Body, pending, or, to Green Island's best knowledge, threatened against Green Island wherein an unfavorable decision, ruling or finding would materially and adversely affect the validity or enforceability of this Agreement or any other agreement or instrument to be entered into by Green Island in connection with the transaction contemplated hereby, or which would materially and adversely affect the performance by Green Island of its obligations hereunder or under any such other agreement or instrument.

**SECTION 2.4. RENSSELAER REPRESENTATIONS AND WARRANTIES.** Rensselaer hereby represents and warrants to each of the other Albany Pool Communities and the Planning Commission that:

(A) Rensselaer is a municipal corporation validly existing under the Constitution and laws of the State, with full legal right, power, and authority to enter into and perform its obligations under this Agreement.

(B) Rensselaer has duly authorized the execution and delivery of this Agreement, and this Agreement has been duly executed and delivered by Rensselaer and constitutes the legal, valid and binding obligation of Rensselaer, enforceable against Rensselaer in accordance with its terms except insofar as such enforcement may be affected by bankruptcy, insolvency, moratorium and other laws affecting creditors' rights generally.

(C) Neither the execution nor the delivery by Rensselaer of this Agreement nor the performance by Rensselaer of its obligations hereunder (1) conflicts with, violates or results in a breach of any law or governmental regulation applicable to Rensselaer, or (2) conflicts with, violates or results in a breach of any term or condition of any judgment, decree, agreement or instrument to which Rensselaer is a party or by which Rensselaer or any of its properties or assets are bound, or constitutes a default under any such judgment, decree, agreement or instrument.

(D) No approval, authorization, order or consent of, or declaration, registration or filing with

any Governmental Body is required for the valid execution and delivery by Rensselaer of this Agreement, except such as have been duly obtained or made. No ordinance must be enacted by Rensselaer or any other Governmental Body in order for this Agreement to be carried out.

(E) Rensselaer has no knowledge of any applicable law in effect on the date as of which this representation is being made which would prohibit the performance by Rensselaer of this Agreement and the transactions contemplated hereby.

(F) There is no action, suit or other proceeding, at law or in equity, before or by any court or Governmental Body, pending, or, to Rensselaer's best knowledge, threatened against Rensselaer wherein an unfavorable decision, ruling or finding would materially and adversely affect the validity or enforceability of this Agreement or any other agreement or instrument to be entered into by Rensselaer in connection with the transaction contemplated hereby, or which would materially and adversely affect the performance by Rensselaer of its obligations hereunder or under any such other agreement or instrument.

**SECTION 2.5. TROY REPRESENTATIONS AND WARRANTIES.** Troy hereby represents and warrants to each of the other Albany Pool Communities and the Planning Commission that:

(A) Troy is a municipal corporation validly existing under the Constitution and laws of the State, with full legal right, power, and authority to enter into and perform its obligations under this Agreement.

(B) Troy has duly authorized the execution and delivery of this Agreement, and this Agreement has been duly executed and delivered by Troy and constitutes the legal, valid and binding obligation of Troy, enforceable against Troy in accordance with its terms except insofar as such enforcement may be affected by bankruptcy, insolvency, moratorium and other laws affecting creditors' rights generally.

(C) Neither the execution nor the delivery by Troy of this Agreement nor the performance by Troy of its obligations hereunder (1) conflicts with, violates or results in a breach of any law or governmental regulation applicable to Troy, or (2) conflicts with, violates or results in a breach of any term or condition of any judgment, decree, agreement or instrument to which Troy is a party or by which Troy or any of its properties or assets are bound, or constitutes a default under any such judgment, decree, agreement or instrument.

(D) No approval, authorization, order or consent of, or declaration, registration or filing with any Governmental Body is required for the valid execution and delivery by Troy of this Agreement, except such as have been duly obtained or made. No ordinance must be enacted by Troy or any other Governmental Body in order for this Agreement to be carried out.

(E) Troy has no knowledge of any applicable law in effect on the date as of which this representation is being made which would prohibit the performance by Troy of this Agreement and the transactions contemplated hereby.

(F) There is no action, suit or other proceeding, at law or in equity, before or by any court or Governmental Body, pending, or, to Troy's best knowledge, threatened against Troy wherein an unfavorable decision, ruling or finding would materially and adversely affect the validity or enforceability of this Agreement or any other agreement or instrument to be entered into by Troy in connection with the transaction contemplated hereby, or which would materially and adversely affect the performance by Troy of its obligations hereunder or under any such other agreement or instrument.

**SECTION 2.6. WATERVLIED REPRESENTATIONS AND WARRANTIES.** Watervliet hereby represents and warrants to each of the other Albany Pool Communities and the Planning Commission that:

(A) Watervliet is a municipal corporation validly existing under the Constitution and laws of the State, with full legal right, power, and authority to enter into and perform its obligations under this Agreement.

(B) Watervliet has duly authorized the execution and delivery of this Agreement, and this Agreement has been duly executed and delivered by Watervliet and constitutes the legal, valid and binding obligation of Watervliet, enforceable against Watervliet in accordance with its terms except insofar as such enforcement may be affected by bankruptcy, insolvency, moratorium and other laws affecting creditors' rights generally.

(C) Neither the execution nor the delivery by Watervliet of this Agreement nor the performance by Watervliet of its obligations hereunder (1) conflicts with, violates or results in a breach of any law or governmental regulation applicable to Watervliet, or (2) conflicts with, violates or results in a breach of any term or condition of any judgment, decree, agreement or instrument to which Watervliet is a party or by which Watervliet or any of its properties or assets are bound, or constitutes a default under any such judgment, decree, agreement or instrument.

(D) No approval, authorization, order or consent of, or declaration, registration or filing with any Governmental Body is required for the valid execution and delivery by Watervliet of this Agreement, except such as have been duly obtained or made. No ordinance must be enacted by Watervliet or any other Governmental Body in order for this Agreement to be carried out.

(E) Watervliet has no knowledge of any applicable law in effect on the date as of which this representation is being made which would prohibit the performance by Watervliet of this Agreement and the transactions contemplated hereby.

(F) There is no action, suit or other proceeding, at law or in equity, before or by any court or Governmental Body, pending, or, to Watervliet's best knowledge, threatened against Watervliet wherein an unfavorable decision, ruling or finding would materially and adversely affect the validity or enforceability of this Agreement or any other agreement or instrument to be entered into by Watervliet in connection with the transaction contemplated hereby, or which would materially and adversely affect the performance by Watervliet of its obligations hereunder or under any such other agreement or instrument.

### **ARTICLE 3 PURPOSE AND TERM**

**SECTION 3.1 PURPOSE.** The purpose of this Agreement is (1) to provide for the payment of the Catch-up Payments, (2) to provide for pro rata contributions to the debt service payments of the Bonds based on the Allocation Formula in Section 4.2 below, (3) to designate the Corporation as the paying agent for collection of the Catch-up Payments from each Party and distribution of such payments to the appropriate Party, and (4) to provide documentation to the Corporation regarding the making by the Parties of the pro rata contributions to the debt service payments of the Bonds to Cohoes and Rensselaer. The Corporation will not act as paying agent with respect to the making of any debt service payments on the Bonds.

### **SECTION 3.2. TERM.**

(A) The term of this Agreement shall commence as of [\_\_\_\_\_, 2018]. Except as provided in Section 3.2(B), the term of this Agreement shall continue through the maturity of the Bonds on [\_\_\_\_\_, 20\_\_]. This Agreement may be renewed upon its expiration or earlier termination, by written agreement of the Parties.

(B) Notwithstanding Section 3.2(A), this Agreement shall terminate early upon (1) payment in full of the Bonds and (2) performance by the Parties of all other obligations pursuant to the provisions of this Agreement.

## **ARTICLE 4 PAYMENTS AND PAYING AGENT**

### **SECTION 4.1 AGREEMENT TO PAY.**

(A) Each of the Parties shall pay their respective Catch-up Payment within \_\_\_\_\_ ( ) days of the execution and delivery of this Agreement.

(B) Each of the Parties shall pay their respective allocation of the Debt Service Payments five (5) Business Days prior to each interest payment date of the Bonds, as provided and described in Schedule D attached hereto. This obligation shall survive the expiration or early termination of, or any individual Party's withdrawal from, this Agreement.

(C) The Corporation will serve as paying agent for collection and distribution of the Catch-up Payments, as set out in Section 4.3. The Corporation will not serve as paying agent for the collection and distribution of Debt Service Payments.

### **SECTION 4.2 ALLOCATION FORMULA.**

(A) The Debt Service Payments are based on the allocation of project costs under the LTCP at the time of the execution of the Consent Order. Each Party's allocation is based on the following percentages:

- Albany – 58.68%;
- Cohoes – 2.74%;
- Green Island – 0.53%;
- Rensselaer – 2.13%;
- Troy – 34.76%;
- Watervliet – 1.16%.

(B) This Allocation Formula is weighted 85% by total CSO flow from each community, and 15% by population of each community, based on the 2010 Census. If projects are added to the LTCP after the Consent Order is executed, each Party's percentage share of the costs to implement each additional project shall be calculated based on the modeled total CSO flow from each community assuming

implementation of the LTCP projects has occurred.

**SECTION 4.3 PAYING AGENT; PAYMENT OF CATCH-UP PAYMENTS.**

(A) Pursuant to Section 4.6 and 5.1 of the LTCP Intermunicipal Agreement, the Corporation will serve as paying agent under this Agreement for the payment and distribution of the Catch-up Payments.

(B) The Corporation shall segregate and hold in trust the Catch-up Payments collected from each Party in a separate fund for the benefit of the Party to whom the payment is owed.

(C) The Corporation will distribute the Catch-up Payments to the appropriate Party within thirty (30) days of receipt. Upon distribution to and receipt by appropriate Party, the Corporation shall have no further liability for such Catch-up Payments.

**SECTION 4.4 PAYMENT OF DEBT SERVICE PAYMENTS.**

(A) Cohoes and Rensselaer will (1) notify each Party in writing of their respective allocation of the Debt Service Payment payable by such Party at least thirty (30) days prior to the date each payment is due, as provided in Schedules B, C and D attached hereto, and (2) provide to the Corporation copies of such-written notifications delivered to each Party and copies of the receipts evidencing the making of such payments by the Parties.

(B) The Debt Service Payments payable to Cohoes and Rensselaer will be delivered to the addresses described in Schedule E attached hereto.

(C) Cohoes and Rensselaer, as the case may be, shall notify in writing the Planning Commission, the Corporation and each of the other Parties of a Defaulting Party's failure to pay its respective allocation of a Debt Service Payment pursuant to Schedule D attached hereto.

**SECTION 4.5 DEFAULT.** In an event of a documented default by any Party, including without limitation a default in the Debt Service Payments required by this Agreement, the Defaulting Party is subject to the provisions of Section 6.5 of the LTCP Intermunicipal Agreement.

**ARTICLE 5  
MISCELLANEOUS**

**SECTION 5.1 AMENDMENTS.** This Agreement may not be changed, modified, amended or waived except by written agreement duly authorized and executed by all of the Albany Pool Communities; provided, however, that the consent of all the Albany Pool Communities is not required where the change, modification, amendment or waiver is required to (A) qualify this Agreement as a municipal cooperation agreement under Article 5-G of the New York General Municipal Law, (B) qualify the LTCP as a project under New York Local Finance Law § 15.00, or (C) maintain or qualify the interest on the Bonds as excludible from gross income for federal income tax purposes.

**SECTION 5.2 ASSIGNMENT.** Neither this Agreement nor any rights or obligations hereunder may be assigned by any party without the prior written consent of the other parties. If any party withdraws from this Agreement, its approval shall not be required for any modifications to this Agreement after its withdrawal.

**SECTION 5.3 WITHDRAWAL.** A Party may only withdraw from this Agreement pursuant to the terms

of Section 4.7 of the LTCP Intermunicipal Agreement.

**SECTION 5.4 NOTICES.** Unless a party instructs otherwise in writing, all notices, consents, invoices and other communications required, permitted or otherwise delivered under this Agreement shall be in writing and shall be sufficiently given if sent by facsimile or email, delivered in person, sent by regular first class mail, postage prepaid or by a nationally recognized overnight delivery service, addressed as follows:

If to Albany:

Albany Water Board  
10 North Enterprise Dr.  
Albany, NY 12204  
Attention: Chair

If to Cohoes:

City of Cohoes  
Cohoes City Hall  
97 Mohawk Street  
Cohoes, New York 12047  
Attention: Mayor

If to Green Island:

Village of Green Island  
20 Clinton Street  
Green Island, New York 12183  
Attention: Mayor

If to Rensselaer:

City of Rensselaer  
Rensselaer City Hall  
505 Broadway  
Rensselaer, New York 12144  
Attention: Mayor

If to Troy:

City of Troy  
433 River Street  
5th Floor  
Troy, New York 12180  
Attention: Mayor

and

Superintendent, Department of Public Utilities  
25 Water Plant Road  
Troy, New York 12182

If to Watervliet:

City of Watervliet  
2 Fifteenth Street  
Watervliet, New York 12189  
Attention: Mayor

**SECTION 5.5 ENTIRE AGREEMENT.** This Agreement constitutes the entire and complete agreement between the parties with respect to the subject matter hereof, and all previous discussions, understandings, arrangements and correspondence with respect to the subject matter hereof are superseded by the execution of this Agreement. Notwithstanding the previous sentence, this agreement does not supersede or alter the Consent Order, the Municipal Cooperation Agreements for Phase I, Part A, dated September 1, 2005, and for Phase I, Part B, dated February 8, 2007 and amended June 28, 2013, the LTCP Intermunicipal Agreement, or any duly executed written amendments or other agreements thereunder.

**SECTION 5.6 SEVERABILITY.** In the event that any of the provisions, portions, or applications of this Agreement are held to be unenforceable or invalid by any court of competent jurisdiction, the parties shall negotiate an equitable adjustment in the provisions of this Agreement with a view toward effecting the purposes of this Agreement and the validity and enforceability of the remaining provisions, portions or applications thereof shall not be affected thereby.

**SECTION 5.7 GOVERNING LAW.** The interpretation and performance of this Agreement shall be in accordance with and controlled by the laws of the State of New York.

**SECTION 5.8 COUNTERPARTS.** This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which shall together constitute one and the same instrument. This Agreement and any counterpart thereof may be delivered via facsimile or e-mail, it being the express intent of the parties that such Agreement and any counterpart thereof delivered via facsimile or e-mail (together with the signatures thereon) shall have the same force and effect as if they were originals.

[BALANCE OF PAGE INTENTIONALLY LEFT BLANK]

[EXECUTION SIGNATURE PAGE OF INTER-MUNICIPAL AGREEMENT]

**IN WITNESS WHEREOF**, the parties hereto have duly caused this Agreement to be executed and delivered by their duly authorized representative on the date and year first above written.

**CITY OF ALBANY**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**ALBANY WATER BOARD**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**ALBANY MUNICIPAL WATER FINANCE AUTHORITY**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**CITY OF COHOES**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**VILLAGE OF GREEN ISLAND**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**CITY OF RENSSELAER**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**CITY OF TROY**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**CITY OF WATERVLIET**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**SCHEDULE A**  
**CASH CREDIT SETTLEMENT SCHEDULE**

CDRPC: ALBANY POOL COMMUNITIES  
COMPLETED PROJECTS (1ST DRAFT OF CREDIT DETERMINATIONS)

**Full Credit Breakdown**

Project Code	Project Name	Project Location	Project Cost (Budget)	Project Cost (actual)	Budget Exceedance/Notes	Grants or other income	Other Source	Grant / Forgiveness for Budget Exceedance	Grant / Forgiveness for Remaining Project	Project Cost subject to Credit	Cash Credit	Debt Credit
Not Coded	Bouck Tide Gate Installation	Albany	\$160,000	\$155,670						\$155,670	\$155,670	\$0
Not Coded	Elberon Place Area Stormwater Storage Phases I and II	Albany	\$250,000	\$249,674						\$249,674	\$249,674	\$0
Not Coded	Lawndridge/Grove/Glendale/Forest Ave Separation Phase II	Albany	\$340,000	\$447,425	\$107,425					\$340,000	\$340,000	\$0
Not Coded	Marion Ave. Stormwater Storage Structures	Albany	\$510,000	\$508,317						\$508,317	\$508,317	\$0
BMP-02	McCormack Pump Station Upgrades	Albany	\$80,000	\$49,968						\$49,968	\$49,968	\$0
SSS-01	Upper Washington Ave. Groundwater Recharge	Albany	\$200,000	\$264,035	Performed together					\$264,035	\$264,035	\$0
SSS-03	Melrose/Winthrop Groundwater Recharge Basins	Albany	\$200,000									
GI-02	North Swan St. Park Revitalization	Albany	\$150,000	\$149,421		\$87,914	WQIP		\$87,914	\$61,507	\$61,507	\$0
BMP-01	Sewer Rehabilitation	Albany	\$100,000	\$135,942	\$35,942					\$100,000	\$100,000	\$0
Not Coded	Woodville Pump Station Upgrades	Albany	\$140,000	\$116,998						\$116,998	\$116,998	\$0
Not Coded	Asset Management Plan	Troy	\$150,000	\$88,922						\$88,922	\$88,922	\$0
Not Coded	OM&I Plan	Troy	\$125,000	\$121,530						\$121,530	\$121,530	\$0
Not Coded	113th Street Stream Separation	Troy	\$1,430,000	\$210,886						\$210,886	\$210,886	\$0
TE-05	Cross Street Sewer Outfall Evaluation	Troy	\$60,000	\$573,214	Performed together					\$573,214	\$573,214	\$0
TE-01	Cross St. Sewer Outfall Repairs and/or Replacement	Troy	\$640,000									
TE-02	Cross St. Trunk Sewer Rehabilitation Phase I	Troy	\$640,000			\$202,765						
Not Coded	2011 Storm Sewer Improvements**	Cohoes	\$1,500,000	\$2,214,672	\$714,672	\$790,380	EFC CWSRF	\$714,672	\$75,708	\$1,433,792	\$378,098	\$1,055,694
SSS-01	George St. Sewer Separation	Cohoes	\$420,000	Developer		Unknown	Developer		Unknown	\$0	\$0	\$0
Not Coded	Asset Management Plan	Rensselaer	\$50,000	\$34,796						\$34,796	\$352,480	\$5,205,923
Not Coded	OM&I Plan	Rensselaer	\$25,000	\$0		\$0	EFC CWSRF			\$0		
Not Coded	Broadway Sewer Separation and Dry-	Rensselaer	\$1,790,000	\$1,550,709		\$546,197	EFC CWSRF		\$546,197	\$1,004,512		
Not Coded	Washington Ave. Sewer Improvements & Elimination of Farley Drive CSO (Order on Consent for Elimination of CSO)	Rensselaer	\$3,000,000	\$3,422,584	\$422,584	\$915,414	EFC CWSRF	\$422,584	\$492,830	\$2,507,170		
SSS-02	Partition Street/Broadway Sewer and Drain Improvements	Rensselaer	\$2,800,000	\$2,866,311	\$66,311	\$854,386	EFC CWSRF	\$66,311	\$788,076	\$2,011,924		
BMP-14	Partition Street Trunk Sewer Evaluation	Rensselaer	\$50,000	\$0			EFC CWSRF			\$0		
GI-01	Albany Ave. Green St. Project	Green Island	\$250,000	\$380,551	\$130,551					\$250,000		
<b>Total</b>			<b>\$15,060,000</b>	<b>\$13,744,390</b>		<b>\$3,194,291</b>		<b>\$1,203,567</b>	<b>\$1,990,724</b>	<b>\$10,285,681</b>	<b>\$4,024,063</b>	<b>\$6,261,618</b>

\*Prior order on Consent, under consideration for inclusion

\*\*Revised to include \$9500 in costs added after grant. \$8,000 Required Municipal Contribution for Hydraulic Modeling (deemed ineligible by EFC for CWSRF financing). Paid out of pocket. (see Exhibit C from EFC)

CDRPC: ALBANY POOL COMMUNITIES  
COMPLETED PROJECTS (1ST DRAFT OF CREDIT DETERMINATIONS)

<b>Cash Credit Breakdown</b>						
Project Code	Albany Share	Troy Share	Cohoes Share	Rensselaer Share	Watervliet Share	Green Island Share
Bouck Tide Gate Installation	\$91,347.16	\$54,110.89	\$4,265.36	\$3,315.77	\$1,805.77	\$825.05
Elberon Place Area Stormwater Storage Phases I and II	\$146,508.70	\$86,786.68	\$6,841.07	\$5,318.06	\$2,896.22	\$1,323.27
Lawnridge/Grove/Glendale/Forest Ave Separation Phase II	\$199,512.00	\$118,184.00	\$9,316.00	\$7,242.00	\$3,944.00	\$1,802.00
Marion Ave. Stormwater Storage Structures	\$298,280.42	\$176,690.99	\$13,927.89	\$10,827.15	\$5,896.48	\$2,694.08
BMP-02	\$29,321.22	\$17,368.88	\$1,369.12	\$1,064.32	\$579.63	\$264.83
SSS-01	\$154,935.74	\$91,778.57	\$7,234.56	\$5,623.95	\$3,062.81	\$1,399.39
SSS-03						
GI-02	\$36,092.31	\$21,379.83	\$1,685.29	\$1,310.10	\$713.48	\$325.99
BMP-01	\$58,680.00	\$34,760.00	\$2,740.00	\$2,130.00	\$1,160.00	\$530.00
Woodville Pump Station Upgrades	\$68,654.43	\$40,668.50	\$3,205.75	\$2,492.06	\$1,357.18	\$620.09
Asset Management Plan	\$52,179.64	\$30,909.41	\$2,436.47	\$1,894.05	\$1,031.50	\$471.29
OM&I Plan	\$71,313.69	\$42,243.76	\$3,329.92	\$2,588.58	\$1,409.75	\$644.11
113th Street Stream Separation	\$123,748.16	\$73,304.13	\$5,778.29	\$4,491.88	\$2,446.28	\$1,117.70
TE-05	\$336,361.76	\$199,249.06	\$15,706.05	\$12,209.45	\$6,649.28	\$3,038.03
TE-01						
TE-02	\$118,982.50	\$70,481.11	\$5,555.76	\$4,318.89	\$2,352.07	\$1,074.65
2011 Storm Sewer Improvements**	\$221,867.62	\$131,426.69	\$10,359.87	\$8,053.48	\$4,385.93	\$2,003.92
SSS-01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Asset Management Plan	\$206,835.01	\$122,521.90	\$9,657.94	\$7,507.81	\$4,088.76	\$1,868.14
OM&I Plan						
Broadway Sewer Separation and Dry-Washington Ave.						
Sewer Improvements & Elimination of Farley Drive CSO (Order on Contract for)						
SSS-02						
BMP-14	\$146,700.00	\$86,900.00	\$6,850.00	\$5,325.00	\$2,900.00	\$1,325.00
GI-01						
<b>Total</b>	<b>\$2,361,320</b>	<b>\$1,398,764</b>	<b>\$110,259</b>	<b>\$85,713</b>	<b>\$46,679</b>	<b>\$21,328</b>
	Albany Share	Troy Share	Cohoes Share	Rensselaer Share	Watervliet Share	Green Island Share
	Albany Spent	Troy Spent	Cohoes Spent	Rensselaer Spent	Watervliet Spent	Green Island Spent
	\$1,846,169	\$1,197,317	\$378,098	\$352,480	0	\$250,000
<b>Credit</b>	<b>Owe</b>	<b>Owe</b>	<b>Owed</b>	<b>Owed</b>	<b>Owe</b>	<b>Owed</b>
	-\$515,151	-\$201,447	\$267,838	\$266,767	-\$46,679	\$228,672

**SCHEDULE B**  
**COHOES BONDS DEBT SERVICE SCHEDULE**

EXHIBIT B

DESCRIPTION OF PREVIOUSLY ISSUED INDEBTEDNESS  
USED TO FINANCE THE PROJECT

Recipient: City of Cohoes  
County: Albany  
CWSRF Project No.: C4-5404-09-00  
2013 B

Project Number	Type of Obligation	Issue Date	Original Principal Amount	Maturity Date	Redemption Amount (if any)	Redemption Date (if any)	Amount to be Refinanced
C4-5404-09-00	SRF STIFF 1.0	9/30/2010	(1) \$ 1,174,973.00	9/30/2013	\$ 1,500.00	8/27/2012	\$ 383,093.00
	SRF SMRF 1.0	9/30/2010	\$ 382,077.00	9/30/2013	\$ 790,380.00 (2)	8/1/2013	\$ 382,077.00
							<u>\$ 765,170.00</u>

- (1) Project Finance Agreement dated 9/30/2010.  
(2) Principal Forgiveness Allocation: \$790,380.00

SOURCES AND USES OF FUNDS

NYS EFC Series 2013B  
City of Cohoes C4-5404-09-00  
Loan ID 4245

Sources:

Bond Proceeds:	
Par Amount	1,423,060.00
Other Sources of Funds:	
Principal Forgiveness	790,380.00
	<u>2,213,440.00</u>

Uses:

Project Fund Deposits:	
SRF Short-Term Interest-Free Refinancing	383,093.00
SRF Short-Term Market-Rate Refinancing	382,077.00
Principal Forgiveness	790,380.00
Deposit to Construction Fund-New Money	649,622.00
	<u>2,205,172.00</u>
Delivery Date Expenses:	
Underwriter's Discount	3,496.21
State Bond Issuance Charge	1,195.00
Direct Expense	3,576.79
	<u>8,268.00</u>
	<u>2,213,440.00</u>

BOND SUMMARY STATISTICS

NYS EFC Series 2013B  
 City of Cohoes C4-5404-09-00  
 Loan ID 4245

Dated Date	07/18/2013
Delivery Date	08/01/2013
Last Maturity	05/01/2033
Arbitrage Yield	
True Interest Cost (TIC)	3.703067%
Net Interest Cost (NIC)	3.751959%
All-In TIC	3.743021%
Average Coupon	3.728876%
Average Life (years)	10.608
Duration of Issue (years)	8.591
Par Amount	1,423,060.00
Bond Proceeds	1,423,060.00
Total Interest	564,803.35
Net Interest	568,299.56
Total Debt Service	1,987,863.35
Maximum Annual Debt Service	112,951.11
Average Annual Debt Service	100,651.31
Underwriter's Fees (per \$1000)	
Average Takedown	
Other Fee	2.456825
Total Underwriter's Discount	2.456825
Bid Price	99.754317

Bond Component	Par Value	Price	Average Coupon	Average Life
SRF Bond Proceeds	711,530.00	100.000	3.729%	10.608
SRF Equity	711,530.00	100.000	3.729%	10.608
	1,423,060.00			10.608

	TIC	All-In TIC	Arbitrage Yield
Par Value	1,423,060.00	1,423,060.00	1,423,060.00
+ Accrued Interest			
+ Premium (Discount)			
- Underwriter's Discount	(3,496.21)	(3,496.21)	
- Cost of Issuance Expense			
- Other Amounts		(4,771.79)	(1,423,060.00)
Target Value	1,419,563.79	1,414,792.00	
Target Date	08/01/2013	08/01/2013	08/01/2013
Yield	3.703067%	3.743021%	

BOND DEBT SERVICE

NYS EFC Series 2013B  
 City of Cohoes C4-5404-09-00  
 Loan ID 4245

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
11/01/2013			12,315.13	12,315.13	12,315.13
05/01/2014	70,000	0.263000%	21,521.58	91,521.58	
11/01/2014			21,429.53	21,429.53	112,951.11
05/01/2015	68,060	0.653000%	21,429.53	89,489.53	
11/01/2015			21,207.32	21,207.32	110,696.85
05/01/2016	65,000	1.023000%	21,207.32	86,207.32	
11/01/2016			20,874.84	20,874.84	107,082.16
05/01/2017	65,000	1.393000%	20,874.84	85,874.84	
11/01/2017			20,422.12	20,422.12	106,296.96
05/01/2018	65,000	1.743000%	20,422.12	85,422.12	
11/01/2018			19,855.64	19,855.64	105,277.76
05/01/2019	65,000	2.043000%	19,855.64	84,855.64	
11/01/2019			19,191.67	19,191.67	104,047.31
05/01/2020	65,000	2.403000%	19,191.67	84,191.67	
11/01/2020			18,410.69	18,410.69	102,602.36
05/01/2021	70,000	2.683000%	18,410.69	88,410.69	
11/01/2021			17,471.64	17,471.64	105,882.33
05/01/2022	70,000	2.933000%	17,471.64	87,471.64	
11/01/2022			16,445.09	16,445.09	103,916.73
05/01/2023	70,000	3.083000%	16,445.09	86,445.09	
11/01/2023			15,366.04	15,366.04	101,811.13
05/01/2024	70,000	3.422000%	15,366.04	85,366.04	
11/01/2024			14,168.34	14,168.34	99,534.38
05/01/2025	70,000	3.643000%	14,168.34	84,168.34	
11/01/2025			12,893.29	12,893.29	97,061.63
05/01/2026	70,000	3.849000%	12,893.29	82,893.29	
11/01/2026			11,546.14	11,546.14	94,439.43
05/01/2027	75,000	4.014000%	11,546.14	86,546.14	
11/01/2027			10,040.89	10,040.89	96,587.03
05/01/2028	75,000	4.153000%	10,040.89	85,040.89	
11/01/2028			8,483.52	8,483.52	93,524.41
05/01/2029	75,000	4.083000%	8,483.52	83,483.52	
11/01/2029			6,952.39	6,952.39	90,435.91
05/01/2030	75,000	4.344000%	6,952.39	81,952.39	
11/01/2030			5,323.39	5,323.39	87,275.78
05/01/2031	80,000	4.416000%	5,323.39	85,323.39	
11/01/2031			3,556.99	3,556.99	88,880.38
05/01/2032	80,000	4.283000%	3,556.99	83,556.99	
11/01/2032			1,843.79	1,843.79	85,400.78
05/01/2033	80,000	4.609485%	1,843.79	81,843.79	
11/01/2033					81,843.79
	1,423,060		564,803.35	1,987,863.35	1,987,863.35

Note: Aggregate amounts may differ from totals due to rounding.

EQUITY FINANCED  
NYS EFC Series 2013B  
City of Cohoes C4-5404-09-00  
Loan ID 4245

Date	Principal	Coupon	Interest	Less: Subsidy (1)	Net Debt Service
11/01/2013			6,157.56	6,157.56	
05/01/2014	35,000.00	0.263%	10,760.79	10,760.79	35,000.00
11/01/2014			10,714.77	10,714.77	
05/01/2015	34,030.00	0.653%	10,714.77	10,714.77	34,030.00
11/01/2015			10,603.66	10,603.66	
05/01/2016	32,500.00	1.023%	10,603.66	10,603.66	32,500.00
11/01/2016			10,437.42	10,437.42	
05/01/2017	32,500.00	1.393%	10,437.42	10,437.42	32,500.00
11/01/2017			10,211.06	10,211.06	
05/01/2018	32,500.00	1.743%	10,211.06	10,211.06	32,500.00
11/01/2018			9,927.82	9,927.82	
05/01/2019	32,500.00	2.043%	9,927.82	9,927.82	32,500.00
11/01/2019			9,595.83	9,595.83	
05/01/2020	32,500.00	2.403%	9,595.83	9,595.83	32,500.00
11/01/2020			9,205.35	9,205.35	
05/01/2021	35,000.00	2.683%	9,205.35	9,205.35	35,000.00
11/01/2021			8,735.82	8,735.82	
05/01/2022	35,000.00	2.933%	8,735.82	8,735.82	35,000.00
11/01/2022			8,222.55	8,222.55	
05/01/2023	35,000.00	3.083%	8,222.55	8,222.55	35,000.00
11/01/2023			7,683.02	7,683.02	
05/01/2024	35,000.00	3.422%	7,683.02	7,683.02	35,000.00
11/01/2024			7,084.17	7,084.17	
05/01/2025	35,000.00	3.643%	7,084.17	7,084.17	35,000.00
11/01/2025			6,446.65	6,446.65	
05/01/2026	35,000.00	3.849%	6,446.65	6,446.65	35,000.00
11/01/2026			5,773.07	5,773.07	
05/01/2027	37,500.00	4.014%	5,773.07	5,773.07	37,500.00
11/01/2027			5,020.45	5,020.45	
05/01/2028	37,500.00	4.153%	5,020.45	5,020.45	37,500.00
11/01/2028			4,241.76	4,241.76	
05/01/2029	37,500.00	4.083%	4,241.76	4,241.76	37,500.00
11/01/2029			3,476.20	3,476.20	
05/01/2030	37,500.00	4.344%	3,476.20	3,476.20	37,500.00
11/01/2030			2,661.70	2,661.70	
05/01/2031	40,000.00	4.416%	2,661.70	2,661.70	40,000.00
11/01/2031			1,778.50	1,778.50	
05/01/2032	40,000.00	4.283%	1,778.50	1,778.50	40,000.00
11/01/2032			921.90	921.90	
05/01/2033	40,000.00	4.609%	921.90	921.90	40,000.00
	711,530.00		282,401.75	282,401.75	711,530.00

Notes:

(1) Application of Subsidy Credit is pursuant to Sections 3.1 (C) and 3.1 (D) of the Project Finance Agreement. Failure of Recipient to fulfill the terms of the Project Finance Agreement may result in reduction or elimination of the Subsidy Credit.  
Subsidy Credit for Refunding Recipients is calculated based on Corpus or Reserve Allocation percentage of Existing Agreement.

BOND FINANCED

NYS EFC Series 2013B  
 City of Cohoes C4-5404-09-00  
 Loan ID 4245

Date	Principal	Coupon	Interest	Total Debt Service
11/01/2013			6,157.56	6,157.56
05/01/2014	35,000.00	0.263%	10,760.79	45,760.79
11/01/2014			10,714.77	10,714.77
05/01/2015	34,030.00	0.653%	10,714.77	44,744.77
11/01/2015			10,603.66	10,603.66
05/01/2016	32,500.00	1.023%	10,603.66	43,103.66
11/01/2016			10,437.42	10,437.42
05/01/2017	32,500.00	1.393%	10,437.42	42,937.42
11/01/2017			10,211.06	10,211.06
05/01/2018	32,500.00	1.743%	10,211.06	42,711.06
11/01/2018			9,927.82	9,927.82
05/01/2019	32,500.00	2.043%	9,927.82	42,427.82
11/01/2019			9,595.83	9,595.83
05/01/2020	32,500.00	2.403%	9,595.83	42,095.83
11/01/2020			9,205.35	9,205.35
05/01/2021	35,000.00	2.683%	9,205.35	44,205.35
11/01/2021			8,735.82	8,735.82
05/01/2022	35,000.00	2.933%	8,735.82	43,735.82
11/01/2022			8,222.55	8,222.55
05/01/2023	35,000.00	3.083%	8,222.55	43,222.55
11/01/2023			7,683.02	7,683.02
05/01/2024	35,000.00	3.422%	7,683.02	42,683.02
11/01/2024			7,084.17	7,084.17
05/01/2025	35,000.00	3.643%	7,084.17	42,084.17
11/01/2025			6,446.65	6,446.65
05/01/2026	35,000.00	3.849%	6,446.65	41,446.65
11/01/2026			5,773.07	5,773.07
05/01/2027	37,500.00	4.014%	5,773.07	43,273.07
11/01/2027			5,020.45	5,020.45
05/01/2028	37,500.00	4.153%	5,020.45	42,520.45
11/01/2028			4,241.76	4,241.76
05/01/2029	37,500.00	4.083%	4,241.76	41,741.76
11/01/2029			3,476.20	3,476.20
05/01/2030	37,500.00	4.344%	3,476.20	40,976.20
11/01/2030			2,661.70	2,661.70
05/01/2031	40,000.00	4.416%	2,661.70	42,661.70
11/01/2031			1,778.50	1,778.50
05/01/2032	40,000.00	4.283%	1,778.50	41,778.50
11/01/2032			921.90	921.90
05/01/2033	40,000.00	4.609%	921.90	40,921.90
	711,530.00		282,401.75	993,931.75

Notes:

(1) In the event that the Benefit of the Refunding exceeds the interest payable on any specific payment date, the difference will be credited on a later payment date or dates. Should there be excess Benefits of the Refunding remaining after the final maturity and full repayment, such excess will be remitted to the Recipient by the Corporation.

NOTICE OF TERMS - NET DEBT SERVICE SCHEDULE (1)

NYS EFC Series 2013B  
 City of Cohoes C4-5404-09-00  
 Loan ID 4245

Schedule A

Date	Principal	Coupon	Interest	Gross Debt Service	Less: Subsidy Credit (1)	Plus: Annual Administrative Fee (2)	Semi-Annual Net Debt Service	Annual Net Debt Service, Fiscal Year
11/01/2013			12,315.12	12,315.12	6,157.56		6,157.56	6,157.56
05/01/2014	70,000.00	0.2630%	21,521.58	91,521.58	10,760.79		80,760.79	
11/01/2014			21,429.54	21,429.54	10,714.77	3,232.00	13,946.77	94,707.56
05/01/2015	68,060.00	0.6530%	21,429.54	89,489.54	10,714.77		78,774.77	
11/01/2015			21,207.32	21,207.32	10,603.66	3,212.00	13,815.66	92,590.43
05/01/2016	65,000.00	1.0230%	21,207.32	86,207.32	10,603.66		75,603.66	
11/01/2016			20,874.84	20,874.84	10,437.42	3,050.00	13,487.42	89,091.08
05/01/2017	65,000.00	1.3930%	20,874.84	85,874.84	10,437.42		75,437.42	
11/01/2017			20,422.12	20,422.12	10,211.06	2,886.00	13,097.06	88,534.48
05/01/2018	65,000.00	1.7430%	20,422.12	85,422.12	10,211.06		75,211.06	
11/01/2018			19,855.64	19,855.64	9,927.82	2,724.00	12,651.82	87,862.88
05/01/2019	65,000.00	2.0430%	19,855.64	84,855.64	9,927.82		74,927.82	
11/01/2019			19,191.66	19,191.66	9,595.83	2,562.00	12,157.83	87,085.65
05/01/2020	65,000.00	2.4030%	19,191.66	84,191.66	9,595.83		74,595.83	
11/01/2020			18,410.70	18,410.70	9,205.35	2,400.00	11,605.35	86,201.18
05/01/2021	70,000.00	2.6830%	18,410.70	88,410.70	9,205.35		79,205.35	
11/01/2021			17,471.64	17,471.64	8,735.82	2,224.00	10,959.82	90,165.17
05/01/2022	70,000.00	2.9330%	17,471.64	87,471.64	8,735.82		78,735.82	
11/01/2022			16,445.10	16,445.10	8,222.55	2,050.00	10,272.55	89,008.37
05/01/2023	70,000.00	3.0830%	16,445.10	86,445.10	8,222.55		78,222.55	
11/01/2023			15,366.04	15,366.04	7,683.02	1,874.00	9,557.02	87,779.57
05/01/2024	70,000.00	3.4220%	15,366.04	85,366.04	7,683.02		77,683.02	
11/01/2024			14,168.34	14,168.34	7,084.17	1,700.00	8,784.17	86,467.19
05/01/2025	70,000.00	3.6430%	14,168.34	84,168.34	7,084.17		77,084.17	
11/01/2025			12,893.30	12,893.30	6,446.65	1,524.00	7,970.65	85,054.82
05/01/2026	70,000.00	3.8490%	12,893.30	82,893.30	6,446.65		76,446.65	
11/01/2026			11,546.14	11,546.14	5,773.07	1,350.00	7,123.07	83,569.72
05/01/2027	75,000.00	4.0140%	11,546.14	86,546.14	5,773.07		80,773.07	
11/01/2027			10,040.90	10,040.90	5,020.45	1,162.00	6,182.45	86,955.52
05/01/2028	75,000.00	4.1530%	10,040.90	85,040.90	5,020.45		80,020.45	
11/01/2028			8,483.52	8,483.52	4,241.76	974.00	5,215.76	85,236.21
05/01/2029	75,000.00	4.0830%	8,483.52	83,483.52	4,241.76		79,241.76	
11/01/2029			6,952.40	6,952.40	3,476.20	786.00	4,262.20	83,503.96
05/01/2030	75,000.00	4.3440%	6,952.40	81,952.40	3,476.20		78,476.20	
11/01/2030			5,323.40	5,323.40	2,661.70	600.00	3,261.70	81,737.90
05/01/2031	80,000.00	4.4160%	5,323.40	85,323.40	2,661.70		82,661.70	
11/01/2031			3,557.00	3,557.00	1,778.50	400.00	2,178.50	84,840.20
05/01/2032	80,000.00	4.2830%	3,557.00	83,557.00	1,778.50		81,778.50	
11/01/2032			1,843.80	1,843.80	921.90	200.00	1,121.90	82,900.40
05/01/2033	80,000.00	4.6095%	1,843.80	81,843.80	921.90		80,921.90	
11/01/2033								80,921.90
	1,423,060.00		564,803.50	1,987,863.50	282,401.75	34,910.00	1,740,371.75	1,740,371.75

AMOUNT PAYABLE PURSUANT TO PARAGRAPH 4 OF NOTICE OF TERMS: 8,268.00

Notes:

(1) Application of Subsidy Credit is pursuant to Sections 3.1 (C) and 3.1 (D) of the Project Finance Agreement. Failure of Recipient to fulfill the terms of the Project Finance Agreement may result in reduction or elimination of the Subsidy Credit.

(2) The Annual Administrative Fee is due annually on July 15 commencing July 15, 2014.

The Administrative Fee rate is pursuant to the Project Finance Agreement.

Aggregate amounts may differ from totals due to rounding.

ANNUAL ADMINISTRATIVE FEE (1)

NYS EFC Series 2013B  
 City of Cohoes C4-5404-09-00  
 Loan ID 4245

Date	Balance of Principal Outstanding as of Beginning of Day of Due Date	Administrative Fec
07/15/2014	1,353,060	3,232.00
07/15/2015	1,285,000	3,212.00
07/15/2016	1,220,000	3,050.00
07/15/2017	1,155,000	2,886.00
07/15/2018	1,090,000	2,724.00
07/15/2019	1,025,000	2,562.00
07/15/2020	960,000	2,400.00
07/15/2021	890,000	2,224.00
07/15/2022	820,000	2,050.00
07/15/2023	750,000	1,874.00
07/15/2024	680,000	1,700.00
07/15/2025	610,000	1,524.00
07/15/2026	540,000	1,350.00
07/15/2027	465,000	1,162.00
07/15/2028	390,000	974.00
07/15/2029	315,000	786.00
07/15/2030	240,000	600.00
07/15/2031	160,000	400.00
07/15/2032	80,000	200.00
07/15/2033		
		34,910.00

Notes:

(1) The Annual Administrative Fee is due on July 15 which may reflect a change from the Existing Agreement for Refunding Recipients. For Refunding Recipients the amount due in 2014 is pro-rated from last payment prior to the Effective Date. Administrative Fee rate is pursuant to the Existing Agreement for Refunding Recipients and the Project Finance Agreement for New Money Recipients. Aggregate amounts may differ from totals due to rounding.

## DRAFT City of Cohoes Credit Schedule

Year	Payments	Adjusted credit	Percent	Credit
Cash repayment - Up to and including 2018	458,943.99	378,097.51	82.38%	Paid up front
Remaining	1,281,427.76	1,055,694.49	82.38%	Repayment Schedule
2019	\$ 87,085.65	71,744.85	82.38%	
2020	\$ 86,201.18	71,016.19	82.38%	
2021	\$ 90,165.17	74,281.89	82.38%	
2022	\$ 89,008.37	73,328.87	82.38%	
2023	\$ 87,779.57	72,316.53	82.38%	
2024	\$ 86,467.19	71,235.34	82.38%	
2025	\$ 85,054.82	70,071.77	82.38%	
2026	\$ 83,569.72	68,848.28	82.38%	
2027	\$ 86,955.52	71,637.64	82.38%	
2028	\$ 85,236.21	70,221.20	82.38%	
2029	\$ 83,503.96	68,794.10	82.38%	
2030	\$ 81,737.90	67,339.15	82.38%	
2031	\$ 84,840.20	69,894.95	82.38%	
2032	\$ 82,900.40	68,296.86	82.38%	
2033	\$ 80,921.90	66,666.89	82.38%	

Rev. 8/22/18

<b>Total Debt Repayment</b>	<b>1,740,371.75</b>	<b>1,433,792.00</b>	<b>82.38%</b>	<b>Credit</b>
	From City and EFC Term Sheet	Credits submitted	Percent applied	

**SCHEDULE C**  
**RENSELAER BOND DEBT SERVICE SCHEDULE**

SOURCES AND USES OF FUNDS

NYS Environmental Facilities Corporation Series 2016B  
 City of Rensselaer C4-5409-01-00  
 Loan ID 4606

Sources:

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Bond Proceeds:	
Par Amount	6,371,157.00
Other Sources of Funds:	
Principal Forgiveness	2,678,343.00
Transferred BAN Proceeds	173,297.30
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	2,851,640.30
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	9,222,797.30
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Uses:

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Project Fund Deposits:	
SRF Short-Term Interest-Free Refinancing	2,043,829.00
SRF Short-Term Market-Rate Refinancing	2,032,328.00
Principal Forgiveness	2,678,343.00
Bond Anticipation Note Refinancing	1,800,000.00
Deposit to Construction Fund-Unspent BAN Proceeds	173,297.30
Deposit to Construction Fund-New Money	452,670.00
	<hr/>
	9,180,467.30
Delivery Date Expenses:	
Underwriter's Discount	11,802.40
Direct Expense	19,841.60
State Bond Issuance Charge	10,686.00
	<hr/>
	42,330.00
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	9,222,797.30
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NOTICE OF TERMS - NET DEBT SERVICE SCHEDULE (1)

NYS Environmental Facilities Corporation Series 2016B  
 City of Rensselaer C4-5409-01-00  
 Loan ID 4606

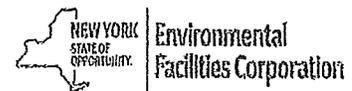
Schedule A

Date	Principal	Coupon	Interest	Gross Debt Service	Less: Subsidy Credit (1)	Plus: Annual Administrative Fee (2)	Semi-Annual Net Debt Service	Annual Net Debt Service, Fiscal Year
02/01/2017	190,000.00	0.5480%	61,706.20	251,706.20	30,853.10	4,998.00	225,851.10	225,851.10
08/01/2017			77,151.54	77,151.54	38,575.77		38,575.77	
02/01/2018	176,157.00	0.6080%	77,151.54	253,308.54	38,575.77	15,452.00	230,184.77	268,760.54
08/01/2018			76,616.02	76,616.02	38,308.01		38,308.01	
02/01/2019	180,000.00	0.6580%	76,616.02	256,616.02	38,308.01	15,012.00	233,320.01	271,628.02
08/01/2019			76,023.82	76,023.82	38,011.91		38,011.91	
02/01/2020	180,000.00	0.7280%	76,023.82	256,023.82	38,011.91	14,562.00	232,573.91	270,585.82
08/01/2020			75,368.62	75,368.62	37,684.31		37,684.31	
02/01/2021	185,000.00	0.7980%	75,368.62	260,368.62	37,684.31	14,112.00	236,796.31	274,480.62
08/01/2021			74,630.48	74,630.48	37,315.24		37,315.24	
02/01/2022	185,000.00	0.9780%	74,630.48	259,630.48	37,315.24	13,650.00	235,965.24	273,280.48
08/01/2022			73,725.82	73,725.82	36,862.91		36,862.91	
02/01/2023	185,000.00	1.1280%	73,725.82	258,725.82	36,862.91	13,186.00	235,048.91	271,911.82
08/01/2023			72,682.42	72,682.42	36,341.21		36,341.21	
02/01/2024	185,000.00	1.2480%	72,682.42	257,682.42	36,341.21	12,724.00	234,065.21	270,406.42
08/01/2024			71,528.02	71,528.02	35,764.01		35,764.01	
02/01/2025	190,000.00	1.3480%	71,528.02	261,528.02	35,764.01	12,262.00	238,026.01	273,790.02
08/01/2025			70,247.42	70,247.42	35,123.71		35,123.71	
02/01/2026	190,000.00	1.4480%	70,247.42	260,247.42	35,123.71	11,786.00	236,909.71	272,033.42
08/01/2026			68,871.82	68,871.82	34,435.91		34,435.91	
02/01/2027	190,000.00	1.7190%	68,871.82	258,871.82	34,435.91	11,312.00	235,747.91	270,183.82
08/01/2027			67,238.78	67,238.78	33,619.39		33,619.39	
02/01/2028	195,000.00	2.0360%	67,238.78	262,238.78	33,619.39	10,836.00	239,455.39	273,074.78
08/01/2028			65,253.68	65,253.68	32,626.84		32,626.84	
02/01/2029	195,000.00	2.2870%	65,253.68	260,253.68	32,626.84	10,350.00	237,976.84	270,603.68
08/01/2029			63,023.86	63,023.86	31,511.93		31,511.93	
02/01/2030	200,000.00	2.5620%	63,023.86	263,023.86	31,511.93	9,862.00	241,373.93	272,885.86
08/01/2030			60,461.86	60,461.86	30,230.93		30,230.93	
02/01/2031	205,000.00	2.7110%	60,461.86	265,461.86	30,230.93	9,362.00	244,592.93	274,823.86
08/01/2031			57,683.08	57,683.08	28,841.54		28,841.54	
02/01/2032	205,000.00	2.7620%	57,683.08	262,683.08	28,841.54	8,850.00	242,691.54	271,533.08
08/01/2032			54,852.02	54,852.02	27,426.01		27,426.01	
02/01/2033	210,000.00	2.8630%	54,852.02	264,852.02	27,426.01	8,336.00	245,762.01	273,188.02
08/01/2033			51,845.88	51,845.88	25,922.94		25,922.94	
02/01/2034	215,000.00	2.9420%	51,845.88	266,845.88	25,922.94	7,812.00	248,734.94	274,657.88
08/01/2034			48,683.22	48,683.22	24,341.61		24,341.61	
02/01/2035	215,000.00	3.0140%	48,683.22	263,683.22	24,341.61	7,274.00	246,615.61	270,957.22
08/01/2035			45,443.18	45,443.18	22,721.59		22,721.59	
02/01/2036	220,000.00	3.0730%	45,443.18	265,443.18	22,721.59	6,736.00	249,457.59	272,173.18
08/01/2036			42,052.88	42,052.88	21,031.44		21,031.44	
02/01/2037	225,000.00	3.1150%	42,052.88	267,052.88	21,031.44	6,186.00	252,217.44	273,248.88
08/01/2037			38,558.50	38,558.50	19,279.25		19,279.25	
02/01/2038	230,000.00	3.5320%	38,558.50	268,558.50	19,279.25	5,624.00	254,903.25	274,182.50
08/01/2038			34,496.70	34,496.70	17,248.35		17,248.35	
02/01/2039	235,000.00	3.5320%	34,496.70	269,496.70	17,248.35	5,050.00	257,298.35	274,546.70
08/01/2039			30,346.60	30,346.60	15,173.30		15,173.30	
02/01/2040	240,000.00	3.5320%	30,346.60	270,346.60	15,173.30	4,462.00	259,635.30	274,808.60
08/01/2040			26,108.20	26,108.20	13,054.10		13,054.10	
02/01/2041	245,000.00	3.5320%	26,108.20	271,108.20	13,054.10	3,862.00	261,916.10	274,970.20
08/01/2041			21,781.50	21,781.50	10,890.75		10,890.75	
02/01/2042	250,000.00	3.3510%	21,781.50	271,781.50	10,890.75	3,250.00	264,140.75	275,031.50
08/01/2042			17,592.76	17,592.76	8,796.38		8,796.38	
02/01/2043	255,000.00	3.3510%	17,592.76	272,592.76	8,796.38	2,624.00	266,420.38	275,216.76
08/01/2043			13,320.22	13,320.22	6,660.11		6,660.11	
02/01/2044	260,000.00	3.3510%	13,320.22	273,320.22	6,660.11	1,986.00	268,646.11	275,306.22
08/01/2044			8,963.92	8,963.92	4,481.96		4,481.96	
02/01/2045	265,000.00	3.3510%	8,963.92	273,963.92	4,481.96	1,336.00	270,817.96	275,299.92
08/01/2045			4,523.86	4,523.86	2,261.93		2,261.93	
02/01/2046	270,000.00	3.3510%	4,523.86	274,523.86	2,261.93	674.00	272,935.93	275,197.86
	6,371,157.00		3,039,879.56	9,411,036.56	1,519,939.78	253,528.00	8,144,624.78	8,144,624.78

AMOUNT PAYABLE PURSUANT TO PARAGRAPH 4 OF NOTICE OF TERMS: 42,330.00

Notes:

- (1) Application of Subsidy Credit is pursuant to Sections 3.1 (B) and 7.1(A) of the Project Finance Agreement. Failure of Recipient to fulfill the terms of the Project Finance Agreement may result in reduction or elimination of the Subsidy Credit.
- (2) The Annual Administrative Fee is due annually on January 15 commencing January 15, 2017. The Administrative Fee rate is pursuant to the Project Finance Agreement. Aggregate amounts may differ from totals due to rounding.



BOND DEBT SERVICE

NYS Environmental Facilities Corporation Series 2016B  
 City of Rensselaer C4-5409-01-00  
 Loan ID 4606

Date	Principal	Coupon	Interest	Debt Service	Annual Fiscal Year Debt Service
02/01/2017	190,000.00	0.548%	61,706.20	251,706.20	251,706.20
08/01/2017			77,151.54	77,151.54	
02/01/2018	176,157.00	0.608%	77,151.54	253,308.54	330,460.08
08/01/2018			76,616.02	76,616.02	
02/01/2019	180,000.00	0.658%	76,616.02	256,616.02	333,232.04
08/01/2019			76,023.82	76,023.82	
02/01/2020	180,000.00	0.728%	76,023.82	256,023.82	332,047.64
08/01/2020			75,368.62	75,368.62	
02/01/2021	185,000.00	0.798%	75,368.62	260,368.62	335,737.24
08/01/2021			74,630.48	74,630.48	
02/01/2022	185,000.00	0.978%	74,630.48	259,630.48	334,260.96
08/01/2022			73,725.82	73,725.82	
02/01/2023	185,000.00	1.128%	73,725.82	258,725.82	332,451.64
08/01/2023			72,682.42	72,682.42	
02/01/2024	185,000.00	1.248%	72,682.42	257,682.42	330,364.84
08/01/2024			71,528.02	71,528.02	
02/01/2025	190,000.00	1.348%	71,528.02	261,528.02	333,056.04
08/01/2025			70,247.42	70,247.42	
02/01/2026	190,000.00	1.448%	70,247.42	260,247.42	330,494.84
08/01/2026			68,871.82	68,871.82	
02/01/2027	190,000.00	1.719%	68,871.82	258,871.82	327,743.64
08/01/2027			67,238.78	67,238.78	
02/01/2028	195,000.00	2.036%	67,238.78	262,238.78	329,477.56
08/01/2028			65,253.68	65,253.68	
02/01/2029	195,000.00	2.287%	65,253.68	260,253.68	325,507.36
08/01/2029			63,023.86	63,023.86	
02/01/2030	200,000.00	2.562%	63,023.86	263,023.86	326,047.72
08/01/2030			60,461.86	60,461.86	
02/01/2031	205,000.00	2.711%	60,461.86	265,461.86	325,923.72
08/01/2031			57,683.08	57,683.08	
02/01/2032	205,000.00	2.762%	57,683.08	262,683.08	320,366.16
08/01/2032			54,852.02	54,852.02	
02/01/2033	210,000.00	2.863%	54,852.02	264,852.02	319,704.04
08/01/2033			51,845.88	51,845.88	
02/01/2034	215,000.00	2.942%	51,845.88	266,845.88	318,691.76
08/01/2034			48,683.22	48,683.22	
02/01/2035	215,000.00	3.014%	48,683.22	263,683.22	312,366.44
08/01/2035			45,443.18	45,443.18	
02/01/2036	220,000.00	3.073%	45,443.18	265,443.18	310,886.36
08/01/2036			42,062.88	42,062.88	
02/01/2037	225,000.00	3.115%	42,062.88	267,062.88	309,125.76
08/01/2037			38,558.50	38,558.50	
02/01/2038	230,000.00	3.532%	38,558.50	268,558.50	307,117.00
08/01/2038			34,496.70	34,496.70	
02/01/2039	235,000.00	3.532%	34,496.70	269,496.70	303,993.40
08/01/2039			30,346.60	30,346.60	
02/01/2040	240,000.00	3.532%	30,346.60	270,346.60	300,693.20
08/01/2040			26,108.20	26,108.20	
02/01/2041	245,000.00	3.532%	26,108.20	271,108.20	297,216.40
08/01/2041			21,781.50	21,781.50	
02/01/2042	250,000.00	3.351%	21,781.50	271,781.50	293,563.00
08/01/2042			17,592.76	17,592.76	
02/01/2043	255,000.00	3.351%	17,592.76	272,592.76	290,185.52
08/01/2043			13,320.22	13,320.22	
02/01/2044	260,000.00	3.351%	13,320.22	273,320.22	286,640.44
08/01/2044			8,963.92	8,963.92	
02/01/2045	265,000.00	3.351%	8,963.92	273,963.92	282,927.84
08/01/2045			4,523.86	4,523.86	
02/01/2046	270,000.00	3.351%	4,523.86	274,523.86	279,047.72
	6,371,157.00		3,039,879.56	9,411,036.56	9,411,036.56

Note: Aggregate amounts may differ from totals due to rounding.



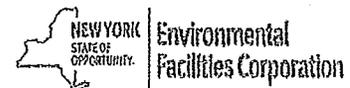
EQUITY FUNDED

NYS Environmental Facilities Corporation Series 2016B  
 City of Rensselaer C4-5409-01-00  
 Loan ID 4606

Date	Principal	Coupon	Interest	Less: Subsidy (I)	Net Debt Service
02/01/2017	95,000.00	0.548%	30,853.10	30,853.10	95,000.00
08/01/2017			38,575.77	38,575.77	
02/01/2018	88,079.00	0.608%	38,575.77	38,575.77	88,079.00
08/01/2018			38,308.01	38,308.01	
02/01/2019	90,000.00	0.658%	38,308.01	38,308.01	90,000.00
08/01/2019			38,011.91	38,011.91	
02/01/2020	90,000.00	0.728%	38,011.91	38,011.91	90,000.00
08/01/2020			37,684.31	37,684.31	
02/01/2021	92,500.00	0.798%	37,684.31	37,684.31	92,500.00
08/01/2021			37,315.24	37,315.24	
02/01/2022	92,500.00	0.978%	37,315.24	37,315.24	92,500.00
08/01/2022			36,862.91	36,862.91	
02/01/2023	92,500.00	1.128%	36,862.91	36,862.91	92,500.00
08/01/2023			36,341.21	36,341.21	
02/01/2024	92,500.00	1.248%	36,341.21	36,341.21	92,500.00
08/01/2024			35,764.01	35,764.01	
02/01/2025	95,000.00	1.348%	35,764.01	35,764.01	95,000.00
08/01/2025			35,123.71	35,123.71	
02/01/2026	95,000.00	1.448%	35,123.71	35,123.71	95,000.00
08/01/2026			34,435.91	34,435.91	
02/01/2027	95,000.00	1.719%	34,435.91	34,435.91	95,000.00
08/01/2027			33,619.39	33,619.39	
02/01/2028	97,500.00	2.036%	33,619.39	33,619.39	97,500.00
08/01/2028			32,626.84	32,626.84	
02/01/2029	97,500.00	2.287%	32,626.84	32,626.84	97,500.00
08/01/2029			31,511.93	31,511.93	
02/01/2030	100,000.00	2.562%	31,511.93	31,511.93	100,000.00
08/01/2030			30,230.93	30,230.93	
02/01/2031	102,500.00	2.711%	30,230.93	30,230.93	102,500.00
08/01/2031			28,841.54	28,841.54	
02/01/2032	102,500.00	2.762%	28,841.54	28,841.54	102,500.00
08/01/2032			27,426.01	27,426.01	
02/01/2033	105,000.00	2.863%	27,426.01	27,426.01	105,000.00
08/01/2033			25,922.94	25,922.94	
02/01/2034	107,500.00	2.942%	25,922.94	25,922.94	107,500.00
08/01/2034			24,341.61	24,341.61	
02/01/2035	107,500.00	3.014%	24,341.61	24,341.61	107,500.00
08/01/2035			22,721.59	22,721.59	
02/01/2036	110,000.00	3.073%	22,721.59	22,721.59	110,000.00
08/01/2036			21,031.44	21,031.44	
02/01/2037	112,500.00	3.115%	21,031.44	21,031.44	112,500.00
08/01/2037			19,279.25	19,279.25	
02/01/2038	115,000.00	3.532%	19,279.25	19,279.25	115,000.00
08/01/2038			17,248.35	17,248.35	
02/01/2039	117,500.00	3.532%	17,248.35	17,248.35	117,500.00
08/01/2039			15,173.30	15,173.30	
02/01/2040	120,000.00	3.532%	15,173.30	15,173.30	120,000.00
08/01/2040			13,054.10	13,054.10	
02/01/2041	122,500.00	3.532%	13,054.10	13,054.10	122,500.00
08/01/2041			10,890.75	10,890.75	
02/01/2042	125,000.00	3.351%	10,890.75	10,890.75	125,000.00
08/01/2042			8,796.38	8,796.38	
02/01/2043	127,500.00	3.351%	8,796.38	8,796.38	127,500.00
08/01/2043			6,660.11	6,660.11	
02/01/2044	130,000.00	3.351%	6,660.11	6,660.11	130,000.00
08/01/2044			4,481.96	4,481.96	
02/01/2045	132,500.00	3.351%	4,481.96	4,481.96	132,500.00
08/01/2045			2,261.93	2,261.93	
02/01/2046	135,000.00	3.351%	2,261.93	2,261.93	135,000.00
	3,185,579.00		1,519,939.78	1,519,939.78	3,185,579.00

Notes:

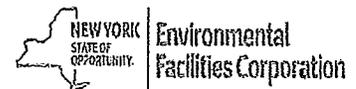
(1) Application of Subsidy Credit is pursuant to Sections 3.1 (B) and 7.1(A) of the Project Finance Agreement. Failure of Recipient to fulfill the terms of the Project Finance Agreement may result in reduction or elimination of the Subsidy Credit.



BOND FUNDED

NYS Environmental Facilities Corporation Series 2016B  
 City of Rensselaer C4-5409-01-00  
 Loan ID 4606

Date	Principal	Coupon	Interest	Net Debt Service
02/01/2017	95,000.00	0.548%	30,853.10	125,853.10
08/01/2017			38,575.77	38,575.77
02/01/2018	88,078.00	0.608%	38,575.77	126,653.77
08/01/2018			38,308.01	38,308.01
02/01/2019	90,000.00	0.658%	38,308.01	128,308.01
08/01/2019			38,011.91	38,011.91
02/01/2020	90,000.00	0.728%	38,011.91	128,011.91
08/01/2020			37,684.31	37,684.31
02/01/2021	92,500.00	0.798%	37,684.31	130,184.31
08/01/2021			37,315.24	37,315.24
02/01/2022	92,500.00	0.978%	37,315.24	129,815.24
08/01/2022			36,862.91	36,862.91
02/01/2023	92,500.00	1.128%	36,862.91	129,362.91
08/01/2023			36,341.21	36,341.21
02/01/2024	92,500.00	1.248%	36,341.21	128,841.21
08/01/2024			35,764.01	35,764.01
02/01/2025	95,000.00	1.348%	35,764.01	130,764.01
08/01/2025			35,123.71	35,123.71
02/01/2026	95,000.00	1.448%	35,123.71	130,123.71
08/01/2026			34,435.91	34,435.91
02/01/2027	95,000.00	1.719%	34,435.91	129,435.91
08/01/2027			33,619.39	33,619.39
02/01/2028	97,500.00	2.036%	33,619.39	131,119.39
08/01/2028			32,626.84	32,626.84
02/01/2029	97,500.00	2.287%	32,626.84	130,126.84
08/01/2029			31,511.93	31,511.93
02/01/2030	100,000.00	2.562%	31,511.93	131,511.93
08/01/2030			30,230.93	30,230.93
02/01/2031	102,500.00	2.711%	30,230.93	132,730.93
08/01/2031			28,841.54	28,841.54
02/01/2032	102,500.00	2.762%	28,841.54	131,341.54
08/01/2032			27,426.01	27,426.01
02/01/2033	105,000.00	2.863%	27,426.01	132,426.01
08/01/2033			25,922.94	25,922.94
02/01/2034	107,500.00	2.942%	25,922.94	133,422.94
08/01/2034			24,341.61	24,341.61
02/01/2035	107,500.00	3.014%	24,341.61	131,841.61
08/01/2035			22,721.59	22,721.59
02/01/2036	110,000.00	3.073%	22,721.59	132,721.59
08/01/2036			21,031.44	21,031.44
02/01/2037	112,500.00	3.115%	21,031.44	133,531.44
08/01/2037			19,279.25	19,279.25
02/01/2038	115,000.00	3.532%	19,279.25	134,279.25
08/01/2038			17,248.35	17,248.35
02/01/2039	117,500.00	3.532%	17,248.35	134,748.35
08/01/2039			15,173.30	15,173.30
02/01/2040	120,000.00	3.532%	15,173.30	135,173.30
08/01/2040			13,054.10	13,054.10
02/01/2041	122,500.00	3.532%	13,054.10	135,554.10
08/01/2041			10,890.75	10,890.75
02/01/2042	125,000.00	3.351%	10,890.75	135,890.75
08/01/2042			8,796.38	8,796.38
02/01/2043	127,500.00	3.351%	8,796.38	136,296.38
08/01/2043			6,660.11	6,660.11
02/01/2044	130,000.00	3.351%	6,660.11	136,660.11
08/01/2044			4,481.96	4,481.96
02/01/2045	132,500.00	3.351%	4,481.96	136,981.96
08/01/2045			2,261.93	2,261.93
02/01/2046	135,000.00	3.351%	2,261.93	137,261.93
	3,185,578.00		1,519,939.78	4,705,517.78



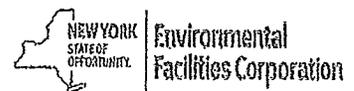
ANNUAL ADMINISTRATIVE FEE (1)

NYS Environmental Facilities Corporation Series 2016B  
 City of Rensselaer C4-5409-01-00  
 Loan ID 4606

Date	Balance of Principal Outstanding as of Beginning of Day of Due Date	Administrative Fee
01/15/2017	6,371,157	4,998.00
01/15/2018	6,181,157	15,452.00
01/15/2019	6,005,000	15,012.00
01/15/2020	5,825,000	14,562.00
01/15/2021	5,645,000	14,112.00
01/15/2022	5,460,000	13,650.00
01/15/2023	5,275,000	13,186.00
01/15/2024	5,090,000	12,724.00
01/15/2025	4,905,000	12,262.00
01/15/2026	4,715,000	11,786.00
01/15/2027	4,525,000	11,312.00
01/15/2028	4,335,000	10,836.00
01/15/2029	4,140,000	10,350.00
01/15/2030	3,945,000	9,862.00
01/15/2031	3,745,000	9,362.00
01/15/2032	3,540,000	8,850.00
01/15/2033	3,335,000	8,336.00
01/15/2034	3,125,000	7,812.00
01/15/2035	2,910,000	7,274.00
01/15/2036	2,695,000	6,736.00
01/15/2037	2,475,000	6,186.00
01/15/2038	2,250,000	5,624.00
01/15/2039	2,020,000	5,050.00
01/15/2040	1,785,000	4,462.00
01/15/2041	1,545,000	3,862.00
01/15/2042	1,300,000	3,250.00
01/15/2043	1,050,000	2,624.00
01/15/2044	795,000	1,986.00
01/15/2045	535,000	1,336.00
01/15/2046	270,000	674.00
01/15/2047		
		253,528.00

Notes:

(1) The Annual Administrative Fee is due annually on January 15 commencing January 15, 2017.  
 The Administrative Fee rate is pursuant to the Project Finance Agreement.  
 Aggregate amounts may differ from totals due to rounding.



BOND SUMMARY STATISTICS

NYS Environmental Facilities Corporation Series 2016B  
 City of Rensselaer C4-5409-01-00  
 Loan ID 4606

Dated Date	09/08/2016
Delivery Date	09/22/2016
Last Maturity	02/01/2046
Arbitrage Yield	
True Interest Cost (TIC)	2.945805%
Net Interest Cost (NIC)	2.993256%
All-In TIC	2.985336%
Average Coupon	2.981680%
Average Life (years)	15.963
Weighted Average Maturity (years)	15.963
Duration of Issue (years)	12.367
Par Amount	6,371,157.00
Bond Proceeds	6,371,157.00
Total Interest	3,039,879.72
Net Interest	3,051,682.12
Total Debt Service	9,411,036.72
Maximum Annual Debt Service	335,737.26
Average Annual Debt Service	320,557.59

Bond Component	Par Value	Price	Average Coupon	Average Life
SRF Bond Proceeds	3,185,578.00	100.000	2.982%	15.963
SRF Equity	3,185,579.00	100.000	2.982%	15.963
	6,371,157.00			15.963

	TIC	All-In TIC	Arbitrage Yield
Par Value	6,371,157.00	6,371,157.00	6,371,157.00
+ Accrued Interest			
+ Premium (Discount)			
- Underwriter's Discount	-11,802.40	-11,802.40	
- Cost of Issuance Expense			
- Other Amounts		-30,527.60	-6,371,157.00
Target Value	6,359,354.60	6,328,827.00	
Target Date	09/22/2016	09/22/2016	09/22/2016
Yield	2.945805%	2.985336%	

EXHIBIT F

NYS Environmental Facilities Corporation Series 2016B  
City of Rensselaer C4-5409-01-00  
Loan ID 4606

Principal Repayment Schedule (1)

Date	Principal
02/01/2017	190,000.00
02/01/2018	176,157.00
02/01/2019	180,000.00
02/01/2020	180,000.00
02/01/2021	185,000.00
02/01/2022	185,000.00
02/01/2023	185,000.00
02/01/2024	185,000.00
02/01/2025	190,000.00
02/01/2026	190,000.00
02/01/2027	190,000.00
02/01/2028	195,000.00
02/01/2029	195,000.00
02/01/2030	200,000.00
02/01/2031	205,000.00
02/01/2032	205,000.00
02/01/2033	210,000.00
02/01/2034	215,000.00
02/01/2035	215,000.00
02/01/2036	220,000.00
02/01/2037	225,000.00
02/01/2038	230,000.00
02/01/2039	235,000.00
02/01/2040	240,000.00
02/01/2041	245,000.00
02/01/2042	250,000.00
02/01/2043	255,000.00
02/01/2044	260,000.00
02/01/2045	265,000.00
02/01/2046	270,000.00
	<u>6,371,157.00</u>

Note: (1) Final Interest Rates, Dates, and Principal Amounts shall be set forth in the Notice of Terms.



## DRAFT City of Rensselaer Credit Schedule

Year	Payments	Adjusted credit	Percent	Credit
Cash repayment - Up to and including 2018	529,407.57	352,479.56	66.58%	Paid up front
Remaining	7,650,012.24	5,093,378.15	66.58%	Repayment Schedule
2019	271,628.02	180,849.94	66.58%	
2020	270,585.82	180,156.04	66.58%	
2021	274,480.62	182,749.20	66.58%	
2022	273,280.48	181,950.14	66.58%	
2023	271,911.82	181,038.89	66.58%	
2024	270,406.42	180,036.59	66.58%	
2025	273,790.02	182,289.40	66.58%	
2026	272,033.42	181,119.85	66.58%	
2027	270,183.82	179,888.39	66.58%	
2028	273,074.78	181,813.19	66.58%	
2029	270,603.68	180,167.93	66.58%	
2030	272,885.86	181,687.41	66.58%	
2031	274,823.86	182,977.73	66.58%	
2032	271,533.08	180,786.72	66.58%	
2033	273,188.02	181,888.58	66.58%	
2034	274,657.88	182,867.22	66.58%	
2035	270,957.22	180,403.32	66.58%	
2036	272,179.18	181,216.90	66.58%	
2037	273,248.88	181,929.10	66.58%	
2038	274,182.50	182,550.71	66.58%	
2039	274,546.70	182,793.19	66.58%	
2040	274,808.60	182,967.57	66.58%	
2041	274,970.20	183,075.16	66.58%	
2042	275,031.50	183,115.97	66.58%	
2043	275,216.76	183,239.32	66.58%	
2044	275,306.22	183,298.88	66.58%	
2045	275,299.02	183,294.09	66.58%	
2046	275,197.86	183,226.74	66.58%	
<b>Total Debt Repayment</b>	<b>7,650,012.24</b>	<b>5,093,378.15</b>	<b>66.58%</b>	<b>Credit</b>
	From City and EFC Term Sheet	Credits submitted	Percent applied	
Rev. 8/22/18				

**SCHEDULE D**  
**COMBINED BOND DEBT SERVICE SCHEDULE**

CDRPC: ALBANY POOL COMMUNITIES  
COMPLETED PROJECTS (1ST DRAFT OF CREDIT DETERMINATIONS)

<b>Debt Credit Breakdown</b>						
Project Code	Albany Share	Troy Share	Cohoes Share	Rensselaer Share	Watervliet Share	Green Island Share
Bouck Tide Gate Installation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Elberon Place Area Stormwater Storage Phases I and II	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Lawnridge/Grove/Glendale/Forest Ave Separation Phase II	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Marion Ave. Stormwater Storage Structures	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BMP-02	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SSS-01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SSS-03						
GI-02	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BMP-01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Woodville Pump Station Upgrades	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Asset Management Plan	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
OM&I Plan	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
113th Street Stream Separation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TE-05	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TE-01						
TE-02						
2011 Storm Sewer Improvements**	\$619,481.53	\$366,959.41	\$28,926.03	\$22,486.29	\$12,246.06	\$5,595.18
SSS-01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Asset Management Plan	\$3,054,835.79	\$1,809,578.94	\$142,642.30	\$110,886.17	\$60,388.71	\$27,591.39
OM&I Plan						
Broadway Sewer Separation and Dry-Weather Storage at Washington Ave.						
Sewer Improvements & Elimination of Farley						
SSS-02						
BMP-14	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
GI-01						
<b>Total</b>	<b>\$3,674,317</b>	<b>\$2,176,538</b>	<b>\$171,568</b>	<b>\$133,372</b>	<b>\$72,635</b>	<b>\$33,187</b>
	Albany Share	Troy Share	Cohoes Share	Rensselaer Share	Watervliet Share	Green Island Share
	Albany Debt	Troy Debt	Cohoes Debt	Rensselaer Debt	Watervliet Debt	Green Island Debt
	\$0	\$0	\$1,055,694	\$5,205,923	0	\$0
<b>Credit</b>	<b>Owe</b>	<b>Owe</b>	<b>Owed</b>	<b>Owed</b>	<b>Owe</b>	<b>Owe</b>
	-\$3,674,317	-\$2,176,538	\$884,126	\$5,072,551	-\$72,635	-\$33,187

**SCHEDULE E**

**BOND DEBT SERVICE PAYMENT ADDRESSES**

If to Cohoes:

City of Cohoes  
Cohoes City Hall  
97 Mohawk Street  
Cohoes, New York 12047  
Attention: \_\_\_\_\_

If to Rensselaer:

City of Rensselaer  
Rensselaer City Hall  
505 Broadway  
Rensselaer, New York 12144  
Attention: \_\_\_\_\_



Date: September 24, 2018

PROJECT No. 32605

Extra Work No. 2

**EXTRA WORK AUTHORIZATION**

In accordance with the written Contract dated January 1, 2015 between the parties designated below for:

**THE PROJECT:** Albany Pool CSO LTCP Floatables Control Projects

**THE CLIENT:** Albany Water Board

hereby authorizes the Engineer to proceed with additional services as follows:

**SCOPE OF SERVICES:**

The scope of services is for Phase 3 archaeological services associated with the Jackson/Livingston floatables site, as defined in the Data Recovery Plan (See Exhibit A).

**SCHEDULE:**

Field work associated with the Phase 3 work will be completed in 2018. The required data analysis, artifact curation and final project documentation will be completed by December 2019.

**FEE**

The associated fees for the work are presented in Exhibit B. Total estimated fees are in a not-to-exceed amount of \$423,504.80.

**Upon return of a fully-executed authorization, this Supplement shall become a part of the Agreement identified above.**

APPROVED BY: ENGINEER	APPROVED BY: CLIENT
NAME: Michael F. Miller	NAME:
SIGNATURE:	SIGNATURE:
TITLE: Vice President	TITLE:
DATE: September 24, 2018	DATE:

**DATA RECOVERY PLAN**  
for the Jackson Street Historic Site  
City of Albany  
Albany County, New York  
August 2018  
DRAFT

This document presents a Data Recovery Plan (DRP) for the study of the Jackson Street Historic Site (JSHS), located in the City of Albany, Albany County, New York. The plan was requested by the City of Albany Department of Water & Water Supply in order to negate the adverse effects of the City of Albany Floatables Control Project, Albany, New York (OPRHP No. 18PR00668). The DRP is designed to mitigate the adverse impacts of the project on the JSHS. The DRP outlines a series of research issues and methodological procedures for completing Phase III data recovery at the site. The JSHS has been recommended as eligible for inclusion in the National Register of Historic Places (NRHP) under Criterion D.

A. Site Description

The JSHS is a stratified multicomponent historic site with mid eighteenth to mid nineteenth century deposits. The site was discovered during Phase I investigations at the Jackson Street/Livingston Avenue location of the City of Albany Floatables Control Project (Gade and Schreyer 2018). The site is located southeast of the intersection of Jackson Street and Livingston Avenue in downtown Albany (Figure 1). The site is capped by four feet (1.2 m) of fill under an asphalt parking lot. The site area is in the Hudson River bottoms, but urban development has left no topographic evidence of the original terrain at the project locality.

Phase I and II investigations identified two historic components. The upper component is represented by two stone foundation walls (Features 5 and 6) and a brick wall (Feature 7) (Figure 2). The lower component is defined by the artifacts recovered from 12+ feet (3.7+ m) below the asphalt surface. The components are separated by approximately four to five feet (1.2-1.5 m) of clay fill. The JSHS is considered to extend across the project's Area of Potential Effect (APE) and measure 523.1 square meters (0.13 ac) in size.

Artifacts associated with the upper component identify the deposit as an early to mid nineteenth century component. Historic maps show no structures at this location in 1818. Rail lines are depicted in the area of the JSHS on maps dating 1857 to 1934 (Jacob 1857, Hopkins 1876, Sanborn Fire Insurance 1892, 1908, 1934). A round house is associated with the rail lines on the 1857 and 1876 maps, and the upper component may be associated with the railroad industry. However, artifacts recovered from this component are primarily ceramics and glass and the assemblage is more typical of a domestic site. Artifacts recovered from the lower component primarily date to last half of eighteenth century and into the early nineteenth century. Similar to the upper component, the composition of the lower component's artifact assemblage is domestic in nature. The 1758 map of the area (Unknown Author 1758) illustrates structures along the floodplain in the project vicinity, but they are located west of the JSHS.

Fill has capped each component resulting in limited, if any, postoccupational disturbance, and each component appears to reflect a short time span of four or five decades. These temporally discrete deposits have potential to yield information important to our understanding of the region's history and the JSHS is recommended as eligible for inclusion in the NRHP under Criterion D.

## B. Research Issues

Research of JSHS has potential to examine the settlement, use and development of the historic Albany vicinity. Archival and archaeological data generated from further study of both components at the site have will address questions regarding the economic transition from the mid eighteenth century preindustrial occupation of the JSHS to the mid nineteenth century use of the site, and in a broader context, of the Capital Region. Additionally, research will contribute to the body of knowledge recovered from archaeological investigations of the historic Albany area (cf. Bradley 2007).

The JSHS area is located in Rensselaerwyck north of the historic limits of Albany. The few archaeological sites identified in the vicinity have documented historic use of this area as being temporary occupations of illicit traders during the seventeenth century, locations of residences, craftsmen, and merchants during the eighteenth century, and commercial and industrial properties during the nineteenth century (HAA 1996, 200, 2005)

LOWER COMPONENT: In the mid eighteenth century the area of the JSHS lies within Rensselaerwyck, north and outside of historic borders of Albany. Archaeological investigations and archival research of the lower component will focus on providing data to address the use of this location at this time period. Is there evidence of domestic occupations or craftsmen use? Is there evidence of Native American trade? Is there evidence of changing use in the lower component? The last half of the eighteenth century marks the end of the colonial wars and removal of the stockade in the 1760s around Albany - are changes evident in use of the JSHS once the stockade was removed. Likewise, did the Revolutionary War have a direct impact on the use of the lower component? How did the use of the site differ between the eighteenth century to the early nineteenth century, the suspected terminal period for the lower component prior to be being covered by fill.

UPPER COMPONENT: Archaeological and archival research will also examine the use of the upper component. While the artifact assemblage has domestic characteristics, the large stone foundation wall measures over 15.5 meters (48 ft), a size more typically associated with warehouse /commercial properties and not domestic residences. Prior to the rail development in this area, the Albany area was in a key location to the economy of the Northeast with the opening of the Erie and Champlain canals in the early nineteenth century. Research issues for the upper component will focus on the economic and urbanization development. Are the architectural features in the upper component associated with commercial development? Was the upper component part of canal-influenced development or the rail industry? With the industrialization of American in the nineteenth century, did local and regional trends influence the use of this component?

In addition to component specific research, archaeological data from JSHS can be compared to other archaeological sites in historic Albany and vicinity to examine similarities and differences in use, economic influence, and the urbanization of Albany. If domestic use is documented at either component of the JSHS, research can address consumer behavior between the various domestic occupations at other archaeological sites. The lower component yielded a large and well preserved faunal assemblage which can be used to address dietary patterns between archaeological assemblages from other historic sites in Albany.

Data requirements for the above discussed research issues can be obtained with archival and archaeological research. Archival data will outline ownership and identify possible individuals residing on site, businesses and/or industrial uses. Additional research of federal, state and

agricultural census records and legal documents such as tax or probate records can provide information regarding household composition if domestic use is suspected for either component. Local histories also will be reviewed to obtain possible information regarding the individuals who owned, lived, or operated businesses on the site. Archival data will be used to develop the historic context of the site.

Archaeological data requirements include discrete temporal deposits and such deposits have been documented at the JSHS by the Phase IB/II investigations. Architectural features are present in the upper component and these remains will be further defined in the APE to examine the use of this component. Potential features associated with the lower component include outbuildings, privies, and fire hearths.

### C. Data Recovery Methods

#### Archival Research

Archival research will provide important information fundamental to understanding occupation and use of the site. Research will consult county records to develop a chain of title for the property. Additionally, historical resources housed at the New York State Library and the Albany County Historical Society will be consulted. In addition, local and regional historical literature including journals and newspapers will be examined for information relating to the history of the project area.

#### Phase III Field Excavations

Field excavations will include mechanical excavation to remove fill overburden on top of each component and manual excavation of units to examine the architectural and archaeological deposits.

The JSHS is estimated to encompass the entire APE and be 523.1 square meters (0.13 ac) in size. Both components are believed to extend outside of the APE, but to what extent is unknown. The upper component does not appear to be intact along the eastern area of the APE. A 72-inch pipe is located 11.5 feet (3.5 m) below the surface in this area, and installation of this utility appears to have disturbed the upper component. While the lower component is potentially across the entire APE, direct project impacts to this component are confined to the 12.2x15.2-meter (40x50-ft) area of deep excavation which will reach a maximum depth of 12.2 meters (40 ft) below the surface.

UPPER COMPONENT: Data recovery will focus on exposing the architectural features across the APE. Mechanical removal of the overlying fill will be accomplished with the use of a toothless backhoe, directed by a professional archaeologist. Once the 3 to 4 feet of surface fill is removed, archaeologists will manually expose the features by shovel skimming or troweling. Planview maps will be compiled of the features and the architectural remains will be photographed. Phase II excavations indicated that the architectural features in the upper component extend to 2.6 meters (8.4 ft) below the surface. No evidence of a floor or intact occupation lens was identified and all artifacts recovered were from within demolition fill.

After all architectural feature recordation is complete in the upper component, a toothless backhoe will be used to remove 50 square meters of demolition fill in selected areas of the APE. The place of the excavations will be based on the configuration of architectural remains in the APE.

Manual excavation of the upper component will concentrate on newly identified features other than foundation walls, and if present, any intact floor or living surfaces associated with the architectural features. Manual excavations will include up to ten square meters.

Based on this excavation plan, approximately 70 percent of the upper component will be exposed at four feet below the surface. This effort will not include the area of the 72-inch pipe and east of this pipe since it is assumed the eastern section of the site is disturbed. Manual excavations (10 sq m) will include 1.9 percent of the site area as it lies within the APE. Architectural features will be dismantled upon completion of Phase III fieldwork so that the underlying fill can be removed to the depth of the lower component.

LOWER COMPONENT: The area of direct impact to the lower component includes an area of 185.4 square meters (2000 sq ft). Excavation of this component will focus on this entire area, but given the shoring needs it is assumed that between 100 and 120 square meters will be accessible for archaeological excavation. Fill over the lower component will be removed with a toothless backhoe and shoring will be installed. The surface of the lower component will be manually exposed by archaeologists and any features identified will be delineated. Excavations will first focus on any identified features. While the number of features that will be exposed/identified cannot be known, Phase III feature excavation will excavate a maximum of three features. Excavations outside of features will open large blocks to expose the occupation lens of this lower component. Feature excavations will follow methods described below. Excavation of the lower component will include between 19.1 and 23 percent (100-120 sq m) of the total site area (523.1 sq m/0.13 ac).

Historic features or artifact concentrations will be mapped in planview and profile, photographed, and excavated by cross sectioning. The excavated matrix will be screened through 1/4-inch mesh hardware cloth. Feature excavation will be designed to obtain a sample sufficient to characterize the function, age, and temporal use span of the feature. Feature soils will be sampled for flotation processing. Sample size will be 10 liters or one-half of the feature matrix if a 10-liter sample is not possible due to a small feature size. Feature excavation will not exceed the horizontal extent and vertical depth of the APE. Architectural components of features such as walls, footings, and floors, will be described, photographed and mapped. The location of all features/artifact concentrations identified during data recovery efforts will be mapped with a total station.

Excavation blocks will include contiguous 1x1-meter excavations. Block excavations will expose a minimum of 4 square-meter areas unless field conditions dictate a smaller size. Unit excavation will proceed manually by shovel skimming and/or trowel excavation. Soils will be removed by 10-centimeter arbitrary levels within natural and/or cultural soil horizons. Twenty-centimeter levels may be used in demolition fill deposits if encountered during unit excavation. Demolition fill may be present in the upper component, but is not expected to be encountered in the lower component. All excavated soils will be screened through 1/4-inch mesh hardware cloth.

Standard archaeological forms for unit and feature excavations will be maintained throughout field investigations, (e.g., unit level forms, feature forms, vertical and horizontal excavation plans, stratigraphic profiles with soil descriptions in standard terminology). All artifacts and cultural data recovered will be bagged according to provenience which will be tied into the site plan by total station mapping. Photographs of the excavations will be taken throughout the duration of fieldwork.

#### Site Mapping

A comprehensive detailed site map will be compiled which will illustrate Phase III excavations and all identified features. Site mapping will be completed using a total station surveying instrument.

#### End of Field Letter

Once all data recovery fieldwork is completed, Landmark Archaeology, Inc. will submit to the OPRHP an End of Field Letter. This letter will describe all field efforts and it will summarize results. The letter will be submitted to OPRHP within one week of Phase III fieldwork completion.

#### D. Data Analysis

All of the artifacts that are recovered during the Phase III data recovery will be transported to Landmark Archaeology, Inc. where they will be processed and cataloged. Processing procedures include washing, dry brushing of fragile and metal objects, and cataloging materials. All artifacts will be sorted into material types for analysis and each artifact will be assigned to an artifact class. Artifact class definitions will follow South's (1977) criteria. Artifact analysis will include tabulating mean ceramic dates (MCD) and terminus post quem (TPQ) determination (South 1977). Higher level analyses such as tabulation of MCD, ceramic economic scaling (Miller 1980, 2000), will use whenever possible, counts based on minimum number of vessels (MNV).

A faunal specialist will examine the Phase II and III animal bone assemblage from the site. The bone assemblage will include species identification and determination of minimum number of individuals (MNI).

#### E. Artifact Curation

All artifacts and other materials collected, including all notes, photographs, and other data generated during the performance of the Phase III data recovery shall be available for research and educational purposes. Artifacts will be curated in accordance with New York Archaeology Council Standards. Documentation of collection's disposition will accompany the draft report submittal to the OPRHP. It will be the responsibility of Landmark Archaeology, Inc. to curate and protect the material until acceptance by the curation facility.

#### F. Final Report Documentation

A technical report will be prepared in accordance with the New York Archaeological Council standards (NYAC 1994). The report will detail the Phase III research design, field methods, analysis methods and interpretation. A digital draft copy of the report will be submitted to the OPRHP through their Cultural Resource Information System (CRIS). Once comments are received, a digital copy of the final report will be submitted to the OPRHP via CRIS.

#### G. Accidental Discovery of Human Remains

In the event that human remains are encountered during archaeological excavations or construction, the State Historic Preservation Office/New York State Office of Parks, Recreation and Historic Preservation Human Remains Discovery Protocol will be implemented (Appendix 1).

#### H. Unexpected Discovery

Should previously unidentified archaeological resources, such as another buried cultural component or prehistoric occupation, be discovered during Phase III data recovery efforts or during construction activities, the City of Albany Department of Water & Water Supply shall contact the OPRHP immediately. All excavations/construction activities shall halt. Should such a discovery occur during Phase III fieldwork, the Principal Investigator will notify the City of

Albany Department of Water & Water Supply and OPRHP. Should the discovery occur during construction, a qualified archaeologist shall inspect the area and determine the extent of the affected resource. Notification of unforeseen discoveries to OPRHP will allow OPRHP opportunity to comment regarding the significance of the discovery. Should the discovery be deemed significant, the City of Albany Department of Water & Water Supply shall submit a plan to OPRHP for its avoidance, protection, recovery of information or destruction.

#### I. Public Programming

As part of the data recovery, the City of Albany Department of Water & Water Supply shall provide for the dissemination of the project results to the general public. Landmark will advise and consult with the City in preparing a public educational display that summarizes the JSHS archaeological investigations.

#### J. Professional Qualifications

All archaeological work carried out pursuant to this document shall be conducted by or under the direct supervision of an archaeologist who meets the Secretary of the Interior's Qualifications Standards (48 FR44738-9, September 29, 1983). Susan Gade and Dirk Marcucci will be the co-Principal Investigators for the project.

#### REFERENCES CITED

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2007 *Before Albany An Archaeology of Native-Dutch Relations in the Capital Regions 1600-1664*. New York State Museum, Albany, New York.

Hartgen Archeological Associates, Inc. (HAA)

1996 *Phase IA Literature Review and Phase IB Archaeological Investigations Dormitory Authority of the State of New York Office Building Broadway and Maiden Land, City of Albany, NY*. Prepared by Hartgen Archeological Associates, Inc., Rensselaer, New York.

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Jacob, E.

1857 *Map of the City of Albany with villages of Greenbush, East Albany & Bath, NY*. Sprage & Co. and M. Dripps, New York.

Miller, G.L.

1980 Classification and Scaling of 19th Century Ceramics. *Historical Archaeology* 14:1-41.

2000 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. In *Approaches to Material Culture: Research for Historical Archaeologists*. Compiled by David R. Brauner, Edited by Ronald L. Michael. Second Edition. The Society for Historical Archaeology, Pennsylvania.

New York Archaeological Council, The

1994 *Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State*. The New York Archaeological Council.

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- 1892 *Fire Insurance Map of Albany, New York*. Sanborn Map Company, New York. On file at the New York State Museum, Albany, New York.
- 1908 *Fire Insurance Map of Albany, New York*. Sanborn Map Company, New York. On file at the New York State Museum, Albany, New York.
- 1934 *Fire Insurance Map of Albany, New York*. Sanborn Map Company, New York. On file at the New York State Museum, Albany, New York.

South, Stanley

- 1977 *Methods and Theory in Historic Archaeology*. Academic Press, New York.

Unknown Author

- 1758 *A Plan of Albany, as if was in the year 1758*. Map Division. Library of Congress, Washington, DC.

Van Alen, Evert

- 1818 *Map of the City of Albany*.



Source: USGS 7.5' Series Topographic Map Albany, NY (1980) and Troy South, NY (1980) Quadrangles  
 Projection: NAD 1983 UTM Zone 18N

<p> Jackson Street Historic Site</p> <p>0 125 250 500 Feet</p> <p>0 30 60 120 Meters</p>	<p>Albany County, NY</p>  <p>Project Location</p>	 <p>Landmark Archaeology, Inc.</p> <p>N</p>  <p>August 13, 2018</p>
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Figure 1: Jackson Street Historic Site Location

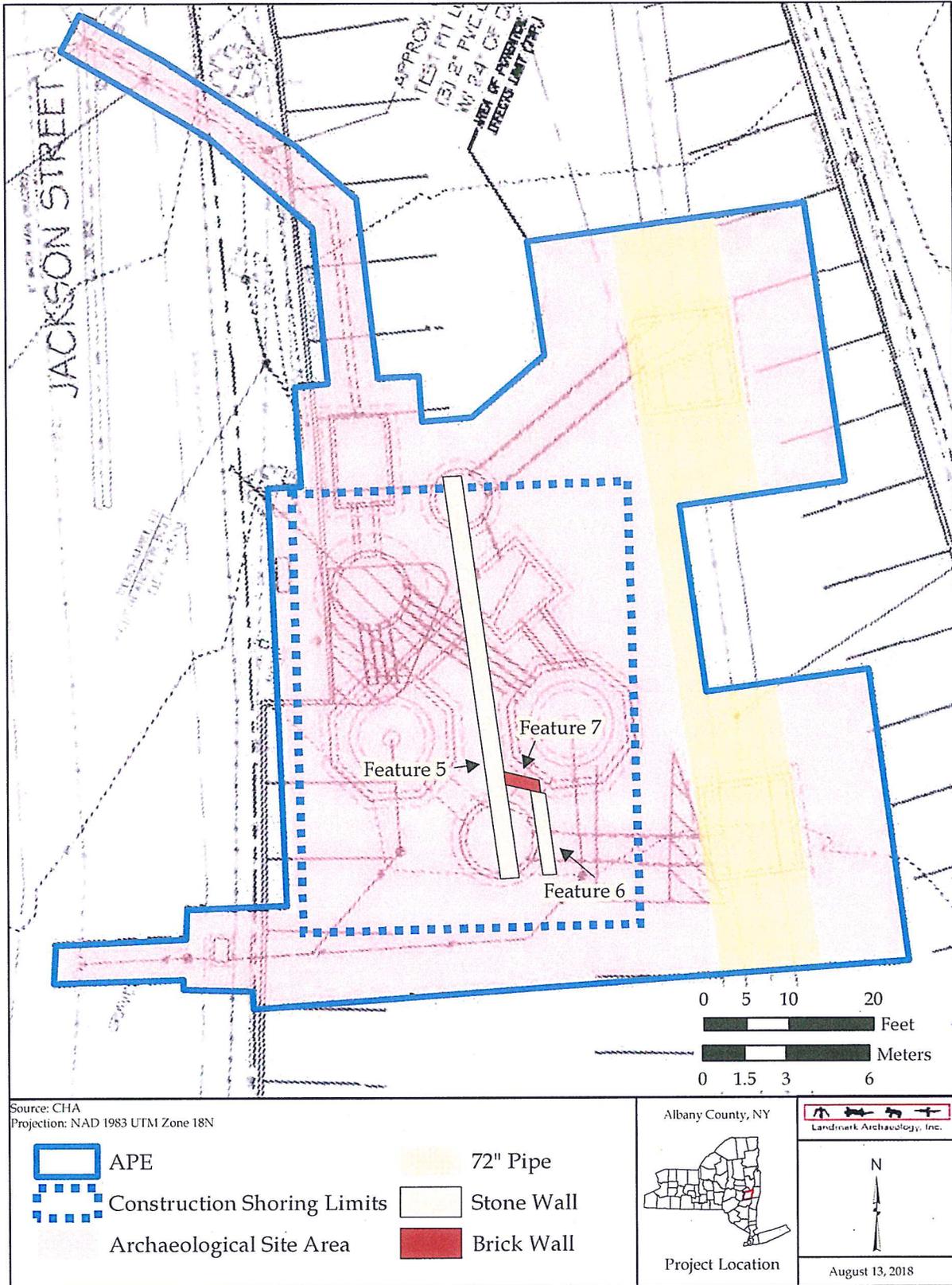


Figure 2: Project Plans and Jackson Street Historic Site

## APPENDIX 1

### State Historic Preservation Office/ New York State Office of Parks, Recreation and Historic Preservation Human Remains Discovery Protocol

In the event that human remains are encountered during construction or archaeological investigations, the State Historic Preservation Office (SHPO) requires that the following protocol is implemented:

- At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.
- Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- The county coroner and local law enforcement as well as the SHPO and the involved agency will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archeological. If the remains are archeological in nature, a bioarchaeologist will confirm the identification as human.
- If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. The involved agency will consult SHPO and appropriate Native American groups to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.
- If human remains are determined to be Euro-American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action.

**Exhibit B**

1. TASK: Prep/Mobilization/Historic Background-includes 3 days field prep-upper fill removal

Labor	\$	45,388.80
Expenses*	\$	2,120.00

2. TASK: Phase III Fieldwork: 5 weeks

Labor	\$	124,320.00
Expenses	\$	50,550.00

3. TASK: End of field letter

Labor	\$	6,240.00
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4. TASK: Data Analysis-12 weeks

Labor	\$	81,600.00
Expenses	\$	480.00

5. TASK: Draft Report Preparation: 8 Weeks

Labor	\$	56,352.00
Expenses	\$	500.00

6. TASK: Final Report Preparation: 4 Weeks

Labor	\$	12,480.00
Expenses	\$	500.00

7. TASK: Public Dissemination-Nontechnical Interpretative Document

Labor	\$	7,200.00
Expenses	\$	1,000.00

Total Labor	\$	333,580.80
Total Expenses	\$	55,150.00
Contingency	\$	16,679.00
	\$	<u>405,409.80</u>

Subconsultants

Faunal                                 \$     4,970.00  
Assumes 3500 bones @ \$1.42/bone

Paleobotanist                     \$     5,000.00  
Assumes 20 samples @ \$250/sample

Conservation                       \$     5,625.00  
Assumes 75 leather artifacts, 10 wood artifacts, 10 metal artifacts

Curation fee                       \$     2,500.00  
Assumes 10 1-sq ft boxes @ \$250/box

Project Total

Landmark Archaeology	\$	405,409.80
Subconsultants	\$	18,095.00
TOTAL	\$	423,504.80

\*EXPENSES RATES

Truck rental: \$65/day/truck

Gas: \$10/day/truck

Total station rental: \$150/day

Trailer rental: \$200/week

GPS rental: \$75/day/unit

Lodging/meals: \$169/day/person

Archive data collection: \$300

Field Supplies: \$150/week

Lab Supplies: \$40/week

Report Prep/Production: \$500



City of Albany: Bouck Street Sewer Budgetary Pricing

Cost to Date: (05/23/18 to 08/08/18) +/- \$ 110,000.00

*By-pass Pumping  
Not LTCP Eligible*

Balance to complete:

Keller Crew: (Superintendent, 3 Laborer's, 1 OE, Hoe, Loader, Tamp, Truck: \$ 4,890.00 Day x 35 days = \$ 171,150.00

Materials:

- Stone:
- Gravel:
- Rubble:
- Concrete
- Pipe Fittings \$ 50,460.00
- 36" Flapper Valve
- Precast Structure
- Asphalt
- Misc.
- Weir Plate & Hardware

By pass pump rentals – 1.5 moths x \$ 11,000.00/month = \$ 16,500.00

Line Striping: \$ 1,000.00

Crane Service (23 Ton): \$ 6,000.00

Trench Box Rentals: \$3,000.00

Deep Well Installation: \$ 20,000.00 + \$5,000.00 (Genset & Piping) Don't need: \$0.00

Shoring Design & Soil Bore: \$ 8,000.00

Soil Probs (SJB Services): \$ 5,000.00

MPT Plant/ Setup/ Remove: \$15,000.00

Core Hole Drilling: 3 Holes x \$ 500.00 ea = \$ 1,500.00

Fence Reset: \$3,000.00

Curb Reset: \$3,000.00

Flow fill Old line: \$ 4,000.00

Timber Pile & Lagging:

J&E Pile & Bracing: \$ 82,000.00

Wood Lagging: \$ 10,000.00 \$ 102,000.00

Additional Steel Stiffeners: \$ 10,000.00

Additional Mob/De-mob: \$ 4,000.00

Insulate Power Lines: (NIMO): \$0.00

Budgetary Pricing of: \$503,610.00 15% O&P = \$ 579,000.00

*W. Simcoe  
9-24-18*

*\$ 503,610 Total  
 - \$ 110,000 By-pass & Initial Work  
 \$ 393,610 New Work  
 x 1.15 O&P  
 \$ 452,651 Const. Cost LTCP*

Joseph E. Coffey, Jr., P.E., Commissioner  
Department of Water and Water Supply  
10 North Enterprise Drive  
Albany, NY, 12204

Arcadis of New York, Inc.  
855 Route 146  
Suite 210  
Clifton Park  
New York 12065  
Tel 518 250 7300  
Fax 518 250 7301  
www.arcadis.com

Subject:  
Normanskill Farm Drainage and Access Improvements  
SEQRA Review and Action Classification

WTRNA

Date:  
September 24, 2018

Dear Mr. Coffey:

Contact:  
Artie Tompkins

Arcadis of New York, Inc. (Arcadis) has reviewed the above-referenced project in accordance with the State Environmental Quality Review Act (SEQRA) 6 NYCRR Part 617. Based upon its review, it is the professional opinion of Arcadis, that the project should be classified as a Type II SEQRA action as the project is necessary for access to and maintenance of an existing 48-inch water supply conduit owned by the City of Albany and maintained by the Albany Water Board (AWB). Additionally, the project will repair significant soil erosion that has occurred in areas adjacent to the supply conduit believed to have occurred from construction activities off-site but within the watershed of the conduit. Stabilization of the ongoing erosion is necessary to protect the integrity of the waterline and the surrounding lands.

Phone:  
518.250.7344

Email:  
Artie.tompkins@arcadis.com

Our ref:  
00942275.0000

The project consists of drainage improvements around the 48-inch water supply conduit to protect it from further erosion. The drainage improvements will be constructed in two areas where significant erosion has been identified. Concurrently, the AWB plans to construct a gravel access road beginning at the entrance of the Normanskill Farm on Mill Road and extending to the I-87 right of way to enable access to the water supply conduit for inspections, maintenance, and repairs. The gravel access road, associated side slopes and drainage swales will run parallel to the 48-inch water supply conduit and will be approximately 20 feet wide by 3,000 feet long (1.4 acres). The project will involve minimal tree removal within the existing water line right-of-way at the northern limits of the project. Tree removal will be completed during the time period between November 1<sup>st</sup> and March 31<sup>st</sup>, as recommended by the United States Fish and Wildlife Service (USFWS) to avoid disturbance to potentially roosting bat species.

Federal and State permits will be required to complete the project including the following:

- New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit (GP-0-15-002).
- NYSDEC Section 401 Water Quality Certification (WQC)
- United States Army Corps of Engineers (USACE) Nationwide General Permit 14, *Linear Transportation Projects*.

The NYS Office of Parks, Recreation and Historic Preservation (OPRHP) has recommended that a Phase 1A/1B archaeological investigation be completed within the project's area of potential effect (APE). Arcadis is currently seeking proposals from qualified archaeological firms to complete this work. It is anticipated that the investigation will not result in any findings of significant artifacts or sites given that the project area has been previously disturbed for the installation of the existing 48-inch supply conduit.

There is a structure within the 200-acre property that is listed on the National Register of Historic Places, "Whipple Cast and Wrought Iron Bowstring Bridge" (NR# 90NR01649). The structure is located approximately 600' from the project area at its closes point and will not be effected by the project. Accordingly, Arcadis does not consider this structure to be substantially contiguous to the project. The buildings and the farm itself, formerly known as "Steven's Farm", is eligible for listing on National Register of Historic places but has not been formally listed. Likewise, the site is not listed on the New York State Register of Historic Places and does not appear to have been formally proposed for listing by the NYS Board on Historic Preservation for a recommendation to the State Historic Preservation Officer for nomination for inclusion on the National Register, or determined by the Commissioner of the OPRHP to be eligible for listing on the State Register of Historic Places pursuant to section 14.07 or 14.09 of the Parks, Recreation and Historic Preservation Law.

The proposed project is being sponsored and fully funded by the AWB and the requirements of SEQRA must be complied with. Certain actions, referred to as Type II (exempt) Actions, as described in 6 NYCRR 617.5, are actions that have been pre-determined to not have a significant adverse impact on the environment and are not subject to further SEQRA review.

Based on our review of the proposed improvements to the existing 48-inch water supply conduit, the project elements have been determined to be consistent with the following Type II regulatory exemptions:

- *6 NYCRR 617.5 (c)(1) maintenance or repair involving no substantial changes in an existing structure or facility;*
- *6 NYCRR 617.5(c)[7](9) construction or expansion of a primary or accessory/appurtenant, non-residential structure or facility involving less than 4,000 square feet of gross floor area and not involving a change in zoning or a use variance and consistent with local land use controls, but not radio communication or microwave transmission facilities;*
- *6 NYCRR 617.5(c)[11](13) extension of utility distribution facilities, including gas, electric, telephone, cable, water and sewer connections to render service in approved subdivision or in connection with any action on this list.*

Joseph E. Coffey, Jr., P.E., Commissioner  
Department of Water and Water Supply  
September 24, 2018

Should you have any questions pertaining to this matter, please do not hesitate to call me at 518.250.7344. We greatly appreciate the opportunity to work with the AWB to advance this project.

Sincerely,

Arcadis of New York, Inc.



Artie Tompkins, CPESC, PWS  
Project Environmental Scientist

Copies:

Kevin Hogan (Arcadis)



## ***SEQRA Resolution – Feura Bush WTP Lagoon 2 Modifications and Site Improvement Project***

The Albany Water Board (AWB) is proposing Lagoon 2 Modifications and Site Improvements at the Feura Bush Water Treatment Plant Sludge Lagoon Facility. The Feura Bush Water Treatment Plant Sludge Lagoon Facility is located north of Bridge Street (NY-396), east of Starr Road/Old Quarry (NY-102), and south of Onesquethaw Creek.

Due to site safety concerns related to the steep slope adjacent to the northeast corner of the sludge lagoon and the Onesquethaw Creek, the Albany Water Department (AWD) removed the lagoon from service. In order to return the lagoon into service, modifications to the facility are proposed to include stabilization of the slope and reconfiguration of a portion of Lagoon 2, as well as several additional improvements to support the short and long-term site operations.

The project is broken down in three project phases.

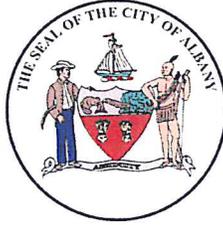
- Phase I will consist of Lagoon Modifications and Site Improvements which will move the northeast section of the lagoon out of the potential failure zone and restore it to service.
- Add-Alternate A (Phase II) consists of mitigating the aforementioned slope by reducing its steepness.
- Add-Alternate B (Phase III) consists of demolishing the now deteriorated former pipe bridge that is spanning the Onesquethaw Creek north of the Lagoons.

The AWD, may seek financial assistance for the Project from the New York State Environmental Facilities Corporation (NYSEFC) under the Drinking Water State Revolving Fund (DWSRF). The DWSRF requires compliance with the State Environmental Quality Review Act (SEQRA) and State Historic Preservation Act (SHPA). As described in 6 NYCRR 617.5, Type II (exempt) actions are actions which have been pre-determined not to have a significant adverse impact on the environment and are not subject to further SEQRA review.

Sponsors of Type II actions seeking funding from DWSRF, must submit required documentation (including a resolution) supporting the Type II classification for their projects to the New York State Environmental Facilities Corporation (EFC) and New York State Department of Health (NYSDOH).

Based on our review of the proposed lagoon 2 modifications, slope mitigation, and bridge demolition the following Type II regulatory exemptions apply:

- 6 NYCRR 617.5(c)(2). "replacement, rehabilitation or reconstruction of a structure or facility, in kind, on the same site, including upgrading buildings to meet building or fire codes, unless such action meets or exceeds any of the thresholds in section 617.4 of this Part;"
- 6 NYCRR 617.5(c)(33). " emergency actions that are immediately necessary on a limited and temporary basis for the protection or preservation of life, health, property or natural resources, provided that such actions are directly related to the emergency and are performed to cause the least change or disturbance, practicable under the circumstances, to the environment. Any decision to fund, approve or directly undertake other activities after the emergency has expired is fully subject to the review procedures of this Part;"



CITY OF ALBANY  
DEPARTMENT OF WATER & WATER SUPPLY  
10 NORTH ENTERPRISE DRIVE  
ALBANY, NEW YORK 12204  
TELEPHONE (518) 434-5300  
FAX (518) 434-5332

KATHY M. SHEEHAN  
MAYOR

JOSEPH E. COFFEY, JR, P.E.  
COMMISSIONER

Memorandum

TO: Mr. Joseph E. Coffey, Jr, PE

FROM: David Welters

CC: William Simcoe, Neil O'Connor

DATE: September 24, 2018

**RE: Shaker Park Water Main Replacement/Extension Project: SEQR Compliance  
City of Albany, Albany County, New York**

The staff of the Albany Water Department has determined that the Shaker Park Water Main Replacement/Extension Project meets the requirement of a Type II action as a replacement or rehabilitation project under 6NYCRR 617.5(c)(2) or as extension of water distribution facilities under 617.5(c)(11).

As a Type II Action, no further SEQR processing is required. Likewise, there is no formal submittal or notification required.



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KATHY M. SHEEHAN  
 MAYOR

JOSEPH E. COFFEY, JR., P.E.  
 COMMISSIONER

**CHANGE ORDER**

CHANGE ORDER NO.: 1A - 01  
 DATE OF ISSUE: September 28, 2018  
 CONTRACT NO.: 8963  
 CONTRACT DATE: June 28, 2018  
 PROJECT NAME: Feura Bush Filtration Plant Employee and Public Space Improvements  
 CONTRACTOR NAME: U.W. Marx Construction Company  
 CONTRACTOR ADDRESS: 20 Gurley Avenue  
 Troy, NY 12182  
 CONTRACTOR PHONE: (518) 272-2541

CHANGE IN CONTRACT AMOUNT

Original Contract Amount	\$ 1,632,632.00
Contract Amount after Previous Change Order	-
Change Due to this Change Order	\$ 29,846.00
New Contract Amount Including this Change Order	\$ 1,662,478.00

(Attach Contractor's detailed cost proposal)

CHANGE IN CONTRACT TIME

Original Contract Completion	April 30, 2019
Contract Time after previous Change Order	-
Change due to this Change Order	0
New Contract Time including this Change Order	April 30, 2019

APPROVALS

ENGINEER: 

Date: \_\_\_\_\_

CONTRACTOR: 

Date: 9/24/18

ALBANY WATER BOARD: \_\_\_\_\_

Date: \_\_\_\_\_

(Attach Board Resolution)

# CHANGE ORDER

CHANGE ORDER NO: 1A - 01  
CONTRACT NO: 8963  
PROJECT NAME: Feura Bush Filtration Plant Employee and Public Space Improvements

## DESCRIPTION OF CHANGE

Narrative description:

The original contract plans called to reuse the existing fuel pump for fuel to be transferred from the new fuel tank to the new boiler. Some piping was in the contract to be replaced but had been specified at the wrong size.

The existing pumps will instead be replaced to serve the new boiler system. Additionally the piping is incorrectly sized by contract and needs to be adjusted to meet the needs of the boiler system.

A new pump and pipe system was submitted for approval by the engineer and the Albany Water Department and meets the needs of the new equipment.

Change Description	Additional Cost	Credit
Deduct of Original Pipe		- \$ 13,500.00
New pump and pipe material	\$ 34,987.00	
Labor for additional install	\$ 6,380.00	
OHP, Insurance, Bonding	\$ 1,979.00	
Total	\$ 43,346.00	- \$ 13,500.00
<b>Change Order Amount</b>	<b>\$ 29,846.00</b>	

Drawing reference(s): G-103 Fuel Oil Tank Site Plan

Specification reference(s): 33 56 13 Fuel Storage Tanks, Piping, and Accessories

## REASON FOR CHANGE

Necessity for change:

Existing pumps are in poor condition and need to be replaced. The existing piping is not sized properly or run to the right locations for use in the new boiler system.

Why this was not foreseen during the design:

The pump condition was operational but poor and the Albany Water Department wants to replace it. Also, old plans that did not accurately reflect the actual piping system were used for pipe design.

## CHANGE ORDER

Other alternatives:

**Use the existing pump and don't change the piping system.**

Cost-effectiveness of this alternative:

**Replacement of the pump in the future would require an emergency contract to get the Filtration Plant heating system back online. An emergency repair will be more costly than designing a new pump to fit the new system. Additionally, access into the tank when in service would be much more complicated.**

### CHANGE TO SCHEDULE OF VALUES

**The funds pertaining to the items in this change order will be added to Division 33 – Fuel Oil System in the Schedule of Values for Contract 1A.**



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**DEPARTMENT OF WATER & WATER SUPPLY**  
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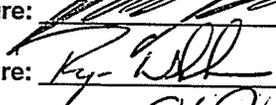
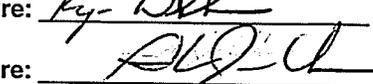
KATHY M. SHEEHAN  
MAYOR

JOSEPH E. COFFEY, JR., P.E.  
COMMISSIONER

**CHANGE DIRECTIVE / FIELD ORDER**

<b>Date:</b>	September 20, 2018	<b>Page</b> <u>1</u> <b>of</b> <u>8</u>	<b>Change Directive #:</b> <u>1A - 03</u>
<b>Contractor Name:</b>	U.W. Marx Construction	<b>Description:</b>	Add New Fuel Pump and Piping
<b>Contact:</b>	Ryan Washburn	<b>Project Name:</b>	Feura Bush Employee and Public Space
<b>Address:</b>	20 Gurley Avenue Troy, NY 12182	<b>Project Location:</b>	Feura Bush Filtration Plant Feura Bush, NY

<b>Basis of Change Directive:</b>	<b>Cost Basis (check all that apply):</b>
<input checked="" type="checkbox"/> Error/Omission <input type="checkbox"/> Differing Site Condition <input checked="" type="checkbox"/> Owner Request <input type="checkbox"/> Field Resolution <input type="checkbox"/> Value Engineering <input type="checkbox"/> _____	<input type="checkbox"/> Time & Material Not to Exceed <input checked="" type="checkbox"/> Fixed Price <input type="checkbox"/> Allowance <input type="checkbox"/> Unit Price
<b>Adjustment to Contract Time:</b>	<b>Adjustment to Schedule of Values or Allowance:</b>
<input checked="" type="checkbox"/> No Change    ___ Days Added    ___ Days Deducted	Schedule Item: <u>Division 33 - Fuel Oil Tank</u> Add: \$ <u>0</u> Deduct: \$ <u>0</u>
<b>Notes:</b>	<b>Adjustment to Contract Sum (indicate if zero cost):</b>
Change Order #1 - Fuel Tank and Piping Add	Add: \$ <u>29,846.00</u> Deduct: \$ _____
<b>Your company is authorized and directed to proceed with the following (attach additional sheets if needed):</b> Elimination of the original fuel pipe from the contract. Addition of new submersible fuel pumps with associated piping to transfer fuel from the new fuel tank to the new boiler. The attached sheets outline the elimination of the old piping and addition of new equipment and installation costs.	
<b>Justification:</b> The existing pumps were not inspected by the design engineer and should've been in the project as a replacement due to their poor condition. The associated piping must meet the pump and boiler needs of the project and will be replaced.	
<i>This Change Directive identifies satisfaction of all compensation and time adjustments related to this change in the Work.</i>	

<b>Architect/Engineer</b>	Name: <u>Brian Edwards</u>	Signature: 	Date: <u>9/21/18</u>
<b>Contractor:</b>	Name: <u>Ryan Washburn</u>	Signature: 	Date: <u>9/21/18</u>
<b>Owner</b>	Name: <u>Rebecca Caldon</u>	Signature: 	Date: <u>9/21/18</u>



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KATHY M. SHEEHAN  
MAYOR

JOSEPH E. COFFEY, JR, P.E.  
COMMISSIONER

September 14, 2018

Ryan Washburn  
U.W. Marx Construction Company  
20 Gurley Avenue  
Troy, NY 12182

Ryan:

The City of Albany Department of Water and Water Supply requests the submission of the fuel pump and pipe revisions to the Feura Bush Filtration Plant Employee and Public Space Contract. The replacement of the pump and proper pipe design was overlooked in the design of the project and needs to be added to the scope of work.

Please provide a brief description of the equipment being proposed and any changes with the piping sizes and layout for the pumping of fuel from the new tank to the new boiler. Also, please list the proposed cost of the specified materials and labor associated with this work. If there is any need for coordination with the HVAC prime contractor please let me know. The submitted proposal will be reviewed by our department and a change directive will be issued for the additional work upon approval.

If you have any questions please feel free to contact me.

Best,  
Rebecca Caldon, PE

CC: Brian Edwards

## Change Request

To: Brian Edwards  
OBRIEN & GERE, ENGINEERING INC  
333 WEST WASHINGTON ST  
SYRACUSE, NY 13202  
Ph: (315)956-6100

Number: 3  
Date: 8/31/18  
Job: 1813 FEURA BUSH FILTRATION PLANT  
Phone:

Description: Pipe Size & Pump System Changes

Source: Other

We are pleased to offer the following specifications and pricing to make the following changes:

Per discussion with Albany Water Department and OBG, the scope for the proposed changes for the existing fuel oil pump skid is:

- ? Disconnect, remove, and dispose of existing dual fuel oil supply pump set.
- ? Furnish and install two FE Petro 1/3 Hp submersible pumps with mechanical leak detection, and single phase controller.
- ? Furnish and install 1 Schedule 40 Black Steel Fuel Oil Supply & Return (FOS&R) piping, with in line flow restriction, and solenoid control valves from old pump room to boiler room fuel train.
- ? Furnish and install one Omntec fuel supply control/alarm panel for pump sequence operation and visual system status and alarm condition.

Description	Labor	Material	Equipment	Subcontract	Other	Price
Pump System Changes				\$27,867.00		\$27,867.00
					Subtotal:	\$27,867.00
		U.W. Marx OH&P		\$27,867.00	5.00%	\$1,393.35
		Liability Insurance		\$29,260.35	1.00%	\$292.60
		Bonds		\$29,260.35	1.00%	\$292.60
		ROUNDED				\$0.45
					Total:	\$29,846.00

If you have any questions, please contact me at (518)272-2541.

Submitted by: Ryan Washburn  
U.W. MARX, INC

Approved by: \_\_\_\_\_  
Date: \_\_\_\_\_



Pipe Size & Pump System Changes	1	LS	\$27,867.00	\$27,867.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
			<b>Subtotal Labor Cost</b>	<b>\$27,867.00</b>
			<b>OHP %</b>	<b>5%</b>
			<b>OHP</b>	<b>\$1,393.35</b>
			<b>TOTAL</b>	<b>\$29,260.35</b>
<b>SUMMARY</b>		<b>TOTAL</b>		
Labor Costs				\$0.00
Material/Equipment Costs				\$0.00
Subcontractor Costs				\$29,260.35
Subtotal				\$29,260.35
Insurance				\$292.60
Bond				\$292.60
Rounding				\$0.44
		<b>TOTAL</b>	<b>\$29,846.00</b>	<b>ROUNDED</b>



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***Change Order Proposal***

**Proposal Submitted to:**  
**UW Marx Construction**  
**Feura Bush Water Filtration Plant**  
**Contract No. 1A – General Construction**

**August 20, 2018**

**Attention: Ryan Washburn - PM**

**Re: Change Order for pipe size change and pump system changes**

**Environmental & Fueling Systems L.L.C.** to provide labor, equipment, and materials to perform the following:

***Scope of work:***

---

- ✓ Disconnect, remove, and dispose of existing dual fuel oil supply pump set.
- ✓ Furnish and install two FE Petro 1/3 Hp submersible pumps with mechanical leak detection, and single phase controller.
- ✓ Furnish and install 1" Schedule 40 Black Steel Fuel Oil Supply & Return (FOS&R) piping, with in line flow restriction, and solenoid control valves from old pump room to boiler room fuel train.
- ✓ Furnish and install one Omntec fuel supply control/alarm panel for pump sequence operation and visual system status and alarm condition.

***MATERIALS and EQUIPMENT:***

<b><i>Qty:</i></b>	<b><i>Model:</i></b>	<b><i>Description:</i></b>
1	#CEL3103	UL 508 Pump Valve Controller by Omntec
1	#LF-4	Four point float sensor w/brass stem, BUNA N floats
2	#P33R1T1	Red Jacket 1/3 Hp, 208/230VAC submersible pump
2	#MRJ-1160585	Mechanical Leak Detection; FX1DV Diesel
2	#MRJ-8800415	115VAC Single Phase Control Box
2	#710-0100 1V	Morrison Bros Solenoid Valve; NC, 120Vac

20 Gurley Avenue  
Troy, New York 12182



Phone: (518) 272-8142  
Fax: (518) 237-0498

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1	#FSW 301	Omega, Flow Switch
200lf	1 Inch	Schedule 40 Black Steel Pipe, threaded.
1	AXI	20Gal Overfill Tank w/Return Pump
		Includes: Dual Chamber Hydraulic Tank 2 position level float 16GPM Return Pump Smart Communication Controller

*Sub-Total Materials: \$34,987.00*

**LABOR:**

<i>Man-hours:</i>	<i>Tradesman:</i>	<i>Task:</i>
8	Laborer	Clean & Demo Existing Pump set
32	Electrician	Install, wire, commission submersible pumps, pump controllers, solenoid valves, Omntec fuel operation/alarm panel.
32	Plumber	Install 1" black steel pipe w/appurtenances from pump room wall to boiler fuel oil train.

*Sub-Total Labor: \$6,380.00*

**CREDIT:**

Replace 2" Flexworks Double Layer primary FOS&R pipe with 1" Flexworks Double Layer primary FOS&R pipe.

*Sub-Total Credit: (-\$13,500.00)*

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20 Gurley Avenue  
Troy, New York 12182



Phone: (518) 272-8142  
Fax: (518) 237-0498

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*Change Order Total less Credit:*

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Sum: \$27,867.00

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***Terms and Signatures:***

Terms: Per contract agreement

**ACCEPTANCE OF *PROPOSAL / CONTRACT***

The above specification, notes, terms and contract conditions are satisfactory, and I hereby authorize the performance of this work. This contract is VOID 30 days from the date above.

Signature \_\_\_\_\_

Date 09/21/2018

Thank you for your consideration  
Sincerely,

*Tony Isgro*

Environmental & Fueling Systems, LLC  
Sales / Estimating  
Direct: 518.272.8142 x 163  
Cell: 518.817.5934  
Fax: 518.237.0498



CITY OF ALBANY  
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KATHY M. SHEEHAN  
 MAYOR

JOSEPH E. COFFEY, JR, P.E.  
 COMMISSIONER

**CHANGE ORDER**

CHANGE ORDER NO.: 02  
 DATE OF ISSUE: September 24, 2018  
 CONTRACT NO.: 8931  
 CONTRACT DATE: November 14, 2017  
 PROJECT NAME: Alcove Reservoir Water Supply Gate Rehabilitation (Electric)  
 CONTRACTOR'S NAME: Stilsing Electric, Inc.  
 CONTRACTOR ADDRESS: 500 South Street  
 PO Box 27  
 Rensselaer, NY 12144  
 CONTRACTOR PHONE: (518) 463-4451

CHANGE IN CONTRACT AMOUNT

Original Contract Amount	\$ 85,100.00
Contract Amount after Previous Change Order	\$ 89,300.00
Change Due to this Change Order	\$ 9,247.00
New Contract Amount Including this Change Order	\$ 98,547.00

(Attach Contractor's detailed cost proposal)

CHANGE IN CONTRACT TIME

Original Contract Completion	May 8, 2018
Contract Time after previous Change Order	May 8, 2018
Change due to this Change Order	December 31, 2018
New Contract Time including this Change Order	December 31, 2018

APPROVALS

ENGINEER: \_\_\_\_\_ Date: \_\_\_\_\_  
 David Railsback, PE

CONTRACTOR: \_\_\_\_\_ Date: \_\_\_\_\_  
 Duke Schneider, Stilsing Electric

ALBANY WATER BOARD: \_\_\_\_\_ Date: \_\_\_\_\_  
 (Attach Board Resolution)

# CHANGE ORDER

CHANGE ORDER NO: 02  
CONTRACT NO: 8931  
PROJECT NAME: Alcove Reservoir Water Supply Gate Rehabilitation (Electric)

## DESCRIPTION OF CHANGE

### **Narrative description:**

Contractor shall install new conduit and wiring for a new sliding gate at site entrance. The new wiring shall be run from an existing breaker in the gatehouse and through conduit as required by the existing specification. The work change estimate is attached.

Contractor will need to adjust some breakers and wiring in the gatehouse due to some equipment changes with the General Contractor. The work change is attached with the estimate.

The contract time change is also included in this change order. The General Contractor has extended their contract time based on long lead manufacturing times. The Electrical Contractor will not be able to do their work until the General Contractor installs the new gates.

Change Description	Additional Cost	Credit
Installation of New Conduit and Wiring	\$ 9,047.00	
Change in Circuit Breaker and Wiring	\$ 200.00	
Total	\$ 9,247.00	
<b>Change Order Amount</b>	<b>\$ 9,247.00</b>	

### **Drawing reference(s):**

None

### **Specification reference(s):**

Division 26 Electrical shall govern for this work.

## REASON FOR CHANGE

### **Necessity for change:**

The fence gate needs to be upgraded for security and access for the gate replacement project. The electrical contract is only partially done and calling in another contractor to work on incomplete electrical work will cause conflict.

For the gate operators to work the type of breaker and wiring has to be changed.

The time change is a direct result of the long lead time of the new manufactured gates in the General Contract. The Electrical Contractor cannot install their work until the gates are in place. The new date is taken from the General Contract Change Order 01.

### **Why this was not foreseen during the design:**

The condition of the access gate was not an issue prior to this project but with increased use and an increased need for security assistance a better gate became a need.

A different operator was approved by the engineer to be installed by the General Contractor and requires different wiring by the Electrical Contractor.

The lead time on the gates was not expected when the project was put out to bid.

## CHANGE ORDER

**Other alternatives:**

Not replacing the access gate would be the alternative which is a security risk as we move forward with the Gate Replacement Project.

There is no alternative to the breaker and wiring change on the Contract.

There is no alternative to the extension of time on the Contract.

**Cost-effectiveness of this alternative:**

Contractor will already be mobilized on site and prepared to do the work. This will also keep the work to one contractor during the construction time.

CHANGE TO SCHEDULE OF VALUES

This work will be added as its own line item in the schedule of values since it is associated with extra work not located inside the gatehouse.