

**TOWN OF JAMESTOWN
TOWN COUNCIL MEETING
for
TOWN, WATER AND SEWER MATTERS**

Tuesday, February 19, 2019

A regular meeting of the Jamestown Town Council sitting as the Board of Water and Sewer Commissioners was called to order at the Jamestown Town Hall, Council Chambers, 93 Narragansett Avenue at 6:31 PM by Commission President Michael G. White.

The following members were present:

Mary E. Meagher, Vice-President
Nancy A. Beye
William J. Piva, Jr.
Randall White

Also present were:

Andrew Nota, Town Administrator
Peter D. Ruggiero Esq., Town Solicitor
Michael Gray PE, Public Works Director
Christina D. Collins, Finance Director
Cheryl Fernstrom, Town Clerk
Lisa Bryer, Town Planner
Andy Wade, Parks and Recreation Director
Denise Jennings, Water and Sewer Clerk

AWARDS, PRESENTATIONS AND ACKNOWLEDGMENTS

(None)

READING AND APPROVAL OF MINUTES

1) 01/22/19 (regular meeting)

Motion was made by Commissioner Meagher, seconded by Commissioner Piva to accept the 01/22/19 regular meeting minutes. So unanimously voted.

OPEN FORUM

Commission President White noted that this open forum would be for water and sewer matters only.

1) Scheduled requests to address:

(No scheduled requests)

2) Non-scheduled request to address:

(No non-scheduled requests)

REPORT OF TOWN OFFICIALS

1) **Pumping Report:**

The Public Works Director reported the following:

- Pumping was down slightly for the month of January.
- JR-1 remains off for the winter.
- Rainfall was down for the month of January and compared to previous months.
- Transfer pumping remains off for the winter.
- North Reservoir is @ capacity, usable storage-60MG
- South Pond is @ capacity, usable storage-6MG

2) **Town project reports:** *(See attached Project Update Report dated February 2019)*

Transfer Pumping/Reservoir

The Public Works Director reported the following:

- He has supplied the Commission with a copy of the communication that he has sent to the RI Department of Health that summarizes the E. Coli analytical results for the samples collected from North Reservoir and JR-1.
- He is hoping that RIDOH will recognize that the average is above 10 and is due to a processing error at the laboratory.
- He has not yet received a response from the RIDOH regarding the requirement for Cryptosporidium monitoring. If additional monitoring is required, the Water Division will need to increase their budget for FY 2019/2020.

Wastewater Treatment Plant

The Public Works Director reported the following:

- He has supplied the Commission with a copy of his response to comments received from the RIDEM Office of Water Resources regarding their annual compliance evaluation of the Wastewater Treatment Facility in December.
- He will be meeting with RIDEM on Thursday, February 21st to discuss their staffing requirements for the facility and our Inflow and Infiltration reduction program. He stated that he will report back to the Commission following his meeting.
- The monthly average daily flow at the Wastewater Treatment Plant in January exceeded our permitted monthly average of .73 and that this was due to the excess rainfall.

Administrator Nota reported that staff will be submitting their Water and Sewer Division budget proposals for FY 2019/2020 to the Commission for their review, in April or May.

Following clarification on a few items, it was the consensus of the Commission to accept the Public Works Director's report, as presented.

LETTERS AND COMMUNICATIONS

(None)

UNFINISHED BUSINESS

(None)

NEW BUSINESS

(None)

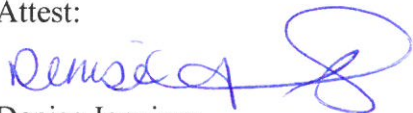
TOWN BUSINESS

(None)

ADJOURNMENT

There being no further business before the Commission, motion was made by Commissioner Meagher, seconded by Commissioner Piva to adjourn the Water and Sewer meeting at 6:40 PM. So unanimously voted.

Attest:



Denise Jennings
Water and Sewer Clerk

xc: Commission Members (5)
Town Administrator
Town Solicitor
Public Works Director
Town Clerk

Project Update February 2019

WELLS

JR-1, JR-3

- JR-1 is turned off for winter conditions to protect equipment and piping from freezing.

TREATMENT PLANT

- Staff have been working on equipment maintenance within the treatment plant.

TRANSFER PUMPING/RESERVOIR

- The piping for our transfer pump has been disconnected to protect equipment from freezing during the winter months.
- Work on the south pond dam was postponed until the 2019 summer season.
- I have provided RI Department of Health the attached letter report that summarizes the E. Coli analytical results for twelve months of samples collected from north reservoir and JR-1. We have not received a response regarding the requirement for Cryptosporidium monitoring.

DISTRIBUTION SYSTEM

South Pond @ 6 MG

Usable Storage, 6 Million Gallons

North Pond @ 60 MG

Usable Storage 60 Million Gallons

- There were two leaks reported for service piping that froze during the cold temperatures in January.

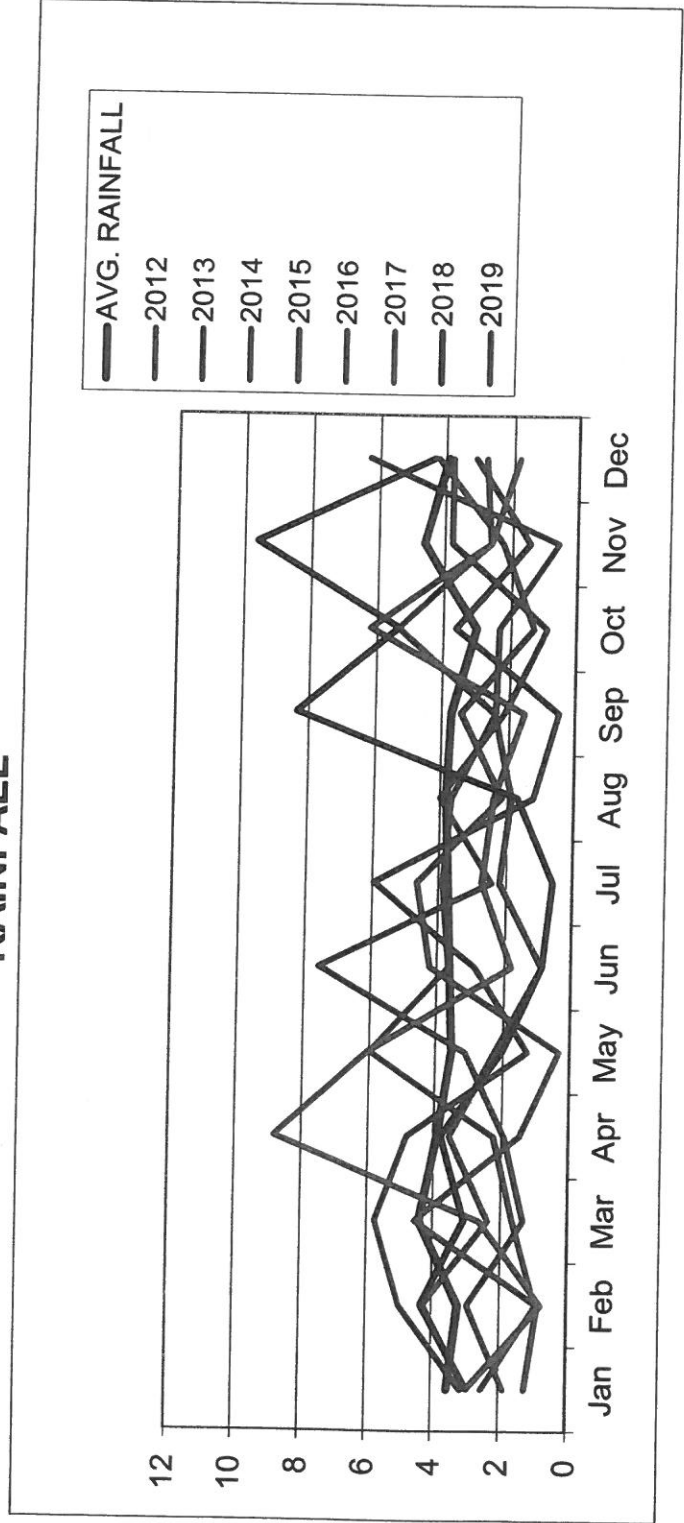
WASTEWATER TREATMENT PLANT

- The monthly average daily flow at the treatment plant for January was 0.77 million gallons per day. The peak daily flow was 1.31 million gallons. The average flow for the January exceeded our permitted monthly average of 0.73 million gallons per day as a condition of our discharge permit. There were no sanitary sewer overflows for the month of January. Rain and groundwater continue to have an impact on the sewer collection system due to I/I (Inflow & infiltration).

Attached is our response to comments received from the RIDEM Office of Water Resources regarding the annual compliance evaluation of the wastewater treatment facility in December. We will be meeting with the staff at RIDEM on February 21st to review the staffing requirements for our facility and our Inflow and Infiltration reduction program to reduce sanitary flows within the collection system.

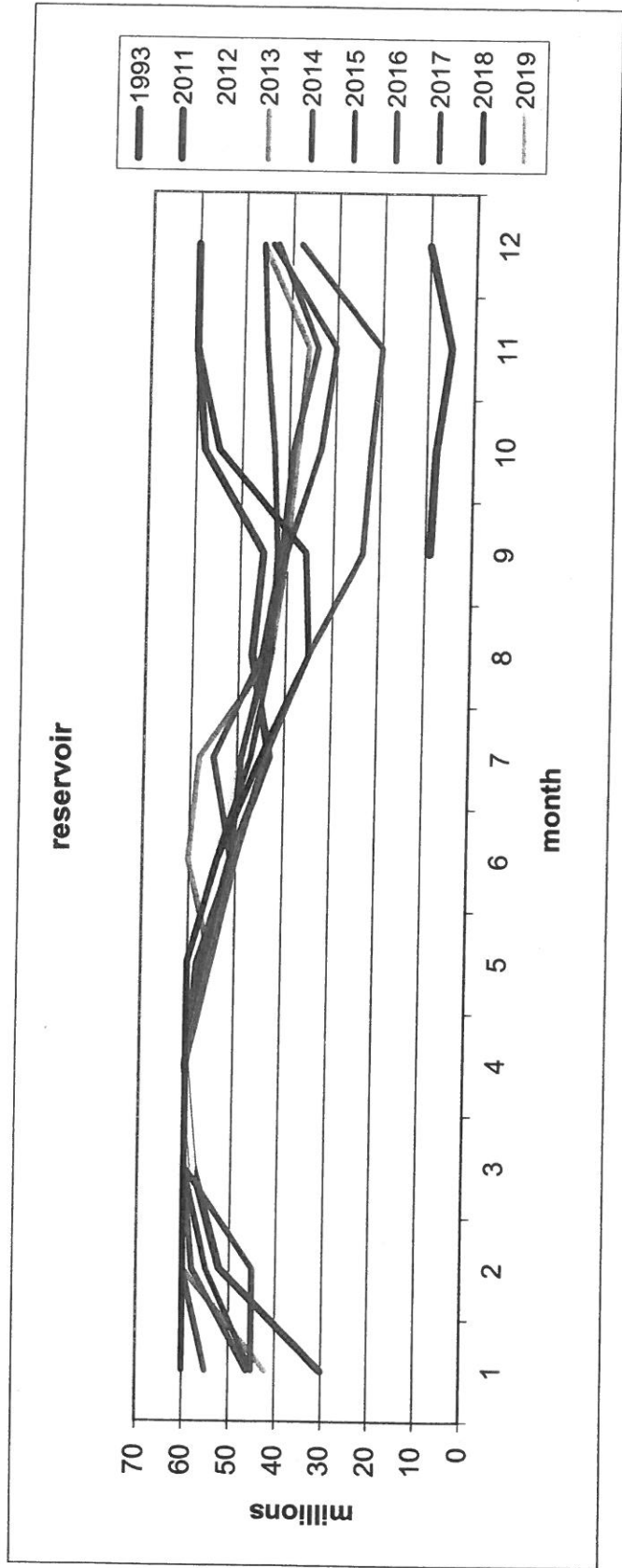
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Jan	3.5	4.22	1.85	3.1	1.22	2.94	2.94	2.94	2.19
Feb	3.2	3.09	2.94	4.98	0.86	4.25	0.76	4.33	2.19
Mar	4.4	1.32	1.32	5.74	4.53	2.36	2.62	3.07	
Apr	3.9	4.25	1.92	4.8	1.47	3.53	8.8	3.79	
May	3.5	2.32	3.11	1.27	0.32	2.24	6.03	2.03	
Jun	3.6	4.4	7.55	2.86	4.2	0.89	1.79	0.89	
Jul	3.7	2.01	2.42	5.93	4.63	2.19	2.7	0.61	
Aug	3.8	5.23	3.98	1.23	2.17	1.88	2.4	1.73	
Sep	3.7	5.41	2.13	0.5	3.41	2.42	1.54	8.35	
Oct	3	7.18	0.9	3.61	1.31	5.33	6.18	5.34	
Nov	4.6	4.05	3.76	1.47	2.27	2.63	2.61	9.61	
Dec	3.9	2.51	3.76	3.1	4.2	2.79	1.81	4.33	
Total	44.8	45.99	35.64	38.59	30.59	33.45	40.18	47.02	2.19

RAINFALL



RESERVOIR LEVEL

	1993	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Jan		60	30	60	42	55	45	46	45	60	60
Feb		60	52	60	60	60	45	58	55	60	60
Mar		60	58	58	60	60	60	60	60	60	60
Apr		60	60	60	60	60	60	60	60	60	60
May		60	57	60	55	58	56	55	60	60	60
Jun		51	51	54	60	51	51	50	54	54	54
Jul		43	43	49	58	55	49	44	47	45	45
Aug		40	47	43	43	45	44	35	43	35	35
Sep	9	35	45	40	40	41	40	23.5	42	36	36
Oct	8	30	58	38	38	39	33	22	43	55	55
Nov	5	28	60	35	36	34	30	20	45	60	60
Dec	10	29	60	42	46	43	44	38	46	60	60





Town of Jamestown
Public Works Department

93 Narragansett Ave ♦ Jamestown, RI 02835

Phone: (401) 423-7225

Fax: (401) 423-7226

February 1, 2019

Mr. William Patenaude
Rhode Island Department of Environmental Management
Office of Water Resources
235 Promenade Street
Providence, RI 02908

RE: Jamestown WWTF
2018 Compliance Evaluation Inspection

Dear Mr. Patenaude,

Thank you for your recent letter regarding the annual inspection of our Wastewater Treatment Facility in Jamestown. I have provided the following responses to the comments received from your department:

- The Town of Jamestown reported a monthly average flow violation of 0.9685 million gallons (MG) for the month of February 2018 and 0.9259 MG for the month of March 2018. The permitted monthly average flow is 0.73 MG. Facility staff attribute these two violations to high flows from heavy rain events and a high water table. Facility staff also reported two wet weather related sanitary sewer overflows on March 2, 2018. The first resulted in a discharge of 160,344 gallons from manholes on Knowles Court and Conanicus Avenue. The second resulted in a discharge of 10,000 gallons from a manhole on Mackerel Cove.*

With your response, please provide a detailed explanation of what actions the town is taking to remove I&I from the wastewater collection system. This requirement is made in consideration of the importance to public health and the environment of having a well operated and maintained sewer collection system, and after consideration of recent high-flow events as well as previously submitted RIPDES I&I reports and the EPA's required CMOM reports.

Response: In the early 2000s Siegmund & Associates, Inc (SAI) completed an Inflow & Infiltration (I/I) Study, updated the wastewater facilities plan, and prepared plans and specifications to rebuild the four pump stations, improve the collection system, and rehabilitate the wastewater treatment plant. The primary purpose of

the project was to reduce excessive I/I entering the collection system, rehabilitate aging infrastructure, and improve the stations and the treatment plant.

As part of this study the investigations performed by SAI included:

1. Flow monitoring of the collection system
2. Manhole inspection
3. Closed Circuit television inspection of pipelines
4. Smoke Testing of the collection system
5. Flow Isolation of pipelines in the collection system

Based upon the results of our study an improvement program was developed for the sewer collection system which included slip-lining, pipe replacement, and manhole replacement. The rehabilitation project was completed in 2009 with 21,453 linear feet of sewer piping lined and approximately 7,000 linear feet replaced. The Total cost for all improvements including the rehabilitation of the treatment plant was \$7.5 million.

Staff at the wastewater department continued to work on the collection system to identify areas where improvements were needed to reduce I/I. The following is a summary of work completed:

- | | |
|-----------|--|
| 2009-2010 | GPS location of 354 sewer manholes and creating a GIS layer for development of an inspection program to target illicit connections |
| 2011 | The wastewater operator with assistance with an intern inspected all sewer manholes creating inspection reports and linking to GIS |
| 2010-2012 | 700 residences were inspected for sources of I&I. Inspection reports were linked by property in GIS database |
| 2012-2013 | CCTV inspection link to GIS |
| 2015 | Purchase new sewer Jet with closed circuit TV (CCTV) system to perform collection system maintenance and perform inspections of piping segments for sources of I&I. The capital cost of the new Jet was \$170,000. |
| 2015 | Prepared bid for additional slip lining of collection system based upon inspections made of our collection system. |
| 2016 | Slip-Lining project awarded to Green Mountain Pipe Line services. 7,954 feet of collection system piping was slip-lined |
| 2017 | 7,009 feet of collection system piping was slip-lined. |

2018 A bid was prepared and awarded to replace 900 linear feet of gravity sewer main that could not be lined due to off-set joints and the condition of the existing clay piping. The project was completed in the fall of 2018 and included replacement of 20 service connections and the removal of 14 abandoned sewer lines.

The Total length of piping in the collection system is 86,954 linear feet consisting of 18,032 linear feet of PVC and 36,516 linear feet of slip-lined pipe. The total cost for the recent round of slip-lining and piping replacement was \$550,000.

We will continue to work on our Inflow and Infiltration reduction program. In 2019 the wastewater department staff will continue with sump pump inspection program. The collection system has been divided into 7 areas as shown on the attached figure. This program will begin with inspecting homes for illicit connections to the system. The inspection program will gather information on the service piping material, location, and depths relative to assumed groundwater elevations.

Within the same period for each study area we will use the Jet Vac to clean and CCTV piping segments to determine the condition of piping and locate illicit connections or old abandoned lines. The CCTV data will be linked to GIS where we can develop a capital program for additional slip-lining and pipe replacement projects.

The data we collect on the individual service connections will provide information to the Board relative to the number of services that need to be replaced, cost to the rate payer, and how we may develop a program with homeowners to reduce sources of I&I.

2. *As noted in the 2016 CEI report, the facility's staffing level does not comply with the approved staffing plan found in 2009 operation and maintenance manual as approved on April 17, 2013. During the 2018 CEI, the DEM inspector noted areas of rust on the waste pumps (see below image). The DEM inspector also noted that the secondary weirs needed to be cleaned. The approved operation and maintenance manual list these items as being the responsibility of a "laborer". It is the department's understanding that the facility has been without a laborer for several years.*

The department is concerned that the lack of a laborer is adversely impacting minor maintenance projects within the facility. Please note that section 250-RICR-150-10-4.5(A) of the Rules and Regulations for the Operation and Maintenance of Wastewater Treatment Facilities requires that "At all time, Wastewater Treatment Facilities shall be maintained in good working order and operated as efficiently as possible. Proper operation and maintenance may include but not be limited to effective performance based on facility design, adequate funding, effective management, adequate operator staffing and training..." With facility operators preoccupied with laborers duties, they are unable to properly maintain, operate, and inspect the treatment facility and collection system.

With your response, please provide the department with a plan to bring the staffing levels at the facility into compliance with the approved operation and maintenance manual.

Response: The wastewater treatment facility for Jamestown has been operated with three staff for some time. The operators have been running the plant safely and efficiently, consistently exceeding permitting requirements. In reviewing your report with the staff, and the existing conditions within our facility we agree there are areas where improvements can be made. We believe that a combination of efficient use of time and seasonal staffing or shared responsibilities within the public works department can fulfill the needs at our facility. We will be working with our wastewater facility staff to develop a plan for routine maintenance activities and schedules.

Recent upgrades at the plant have provided automation and SCADA systems to increase efficiency and assist with monitoring processes and facilities. During after hour call-outs the system can detect problems so that they can deploy to where they are needed. The staff have developed a program and a database of information for the plant's maintenance operations. The software tracks and schedules equipment maintenance to assist the operators in performing their jobs more effectively. In addition to our SCADA and software improvements, plant operations have become more efficient. Responsibilities for sludge processing have been eliminated with all waste now being hauled offsite for disposal. Laboratory testing has been outsourced and we are no longer maintaining a state certified laboratory.

The proposed I&I reduction program will be completed using staff and interns within the office of the director of public works. Staff will also provide administrative support, develop GIS data of the collection system, and maintain homeowner inspections for illicit discharges.

Collection system jetting and CCTV inspections will be managed by wastewater staff with the assistance from the highway department. This program will assist in developing a long-term capital plan for improvements to the system to reduce I&I.

3. *The currently approved operation and maintenance manual lacks an operating budget for the facility. Please note that section 250-RICR-150-10-4.5(H)(13) of the Rules and Regulations for the Operation and Maintenance of Wastewater Treatment Facilities requires that the operation and maintenance manual include "A description of operational funding mechanisms, to be updated at any time said funding mechanism changes."*

With your response please provide an operating budget for the facility that includes, but is not limited to, funding provisions for collection system infiltration and inflow (I&I) identification and removal, operation and maintenance costs, funding provisions for adequate staffing, and funding provisions for capital improvement projects.

Response: Attached is the approved operating budget for FY19. The total operating budget is \$738,092. Debt for the rehabilitation of the treatment facility, collection system, and pump stations completed in 2009 is an additional \$463,792. Debt payments for the jet vac and the most recent collection system improvements completed between 2016 and 2018 is an additional \$58,954 bringing the total for debt service to \$522,746. The total budget for the sewer department that includes operating and debt service is \$1,201,884. The total debt service amounts to 43.49% of the overall budget.

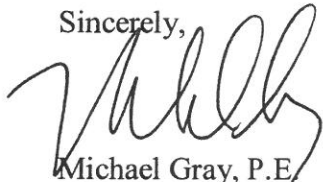
The sewer budget has an annual capital investment of \$50,000 for our facilities. For the past 5 years we have allocated a total of \$227,409 to capital improvements. Over the past several years we have focused this funding to replace and rebuild pumps at our pump stations.

We have been working with our board to provide responsible budgets to our rate payers. Annual capital investments in the sewer department has been increasing steadily since the completion of the rehab project in 2009. We will continue to work with the board to increase our capital based upon our asset management plan. Approximately 70% of our debt service payments will retire in 2022. This will allow our department the ability to make another large investment in improvements at our facilities without having an impact on our rates. Information gathered from our investigations within the collection system and home inspections for illicit connections will assist us in developing long term projects to reduce I&I.

Budgeting for additional staffing is not included in FY19. We will continue to work with our staff to provide the resources they need to operate and maintain our facilities. Preliminary estimates for one additional staff for the wastewater department including salary and benefits is \$90,000, an increase of 12% to the operating budget.

Thank you for the opportunity to respond to comments from your compliance evaluation. We are interested in meeting with you and your staff to review this letter and the staffing for our facility. If you have any questions or need additional information please contact me at (401) 423-7225.

Sincerely,



Michael Gray, P.E.
Public Works Director

CC: Andrew Nota, Town Administrator
Doug Ouellette, Wastewater Superintendent

MAP FOR SEWER DEPT.
USE ONLY
MAP NOT TO SCALE



SANITARY SEWER COLLECTION SYSTEM

LINENO MAP

- LEGEND:
- ▲ Manhole Inspection/Valuation
 - ▲ Sewer Break
 - ▲ Sewer Improvement
- Scale: 1" = 100'
- North Arrow

JAMESTOWN WFTF
1 FERRIS LANE
JAMESTOWN RI 02855
(401) 437-2295

TOWN OF JAMESTOWN - SEWER DIVISION
Proposed Budget
July 1, 2018 - June 30, 2019

Adopted 6/18/18

ACCOUNT NUMBER & DESCRIPTION	Actual	BUDGET FY17.18	PROPOSED FY18.19	FY17.18	\$ Change Prev. Yr.	% Change Prev. Yr.
	FY16.17 6/30/2017			YTD 4/30/2018		
OPERATING REVENUES						
0000 40400 Sewer Line Frontage Assessment	79,501.00	80,042.00	80,042.00	0.00	0.00	0.00%
0000 40405 Inspection Fees	250.00	250.00	250.00	75.00	0.00	0.00%
0000 40406 Sewer Use Sales	555,000.00	585,525.00	614,800.00	320,178.01	29,275.00	5.00%
0000 40408 New Service Connection Fees	30,000.00	45,000.00	30,000.00	54,000.00	-15,000.00	-33.33%
0000 40414 Dumping Fees	5,000.00	5,000.00	5,000.00	2,345.00	0.00	0.00%
0000 40850 Golf Course Allocation	8,000.00	8,000.00	8,000.00	0.00	0.00	0.00%
40100 TOTAL REVENUES	677,751.00	723,817.00	738,092.00	376,598.01	14,275.00	1.97%
OPERATING EXPENSES						
7000 70100 Public Works Director	23,648.05	24,239.00	24,844.00	20,510.17	605.00	2.50%
7000 70101 Wastewater Super w/Long	72,023.70	72,940.00	74,763.68	62,445.80	1,823.68	2.50%
7000 70102 Accounting w/Long	41,379.22	39,595.00	40,571.00	36,710.85	976.00	2.46%
7000 70103 Asst. Superintendent w/Long	66,997.62	67,741.00	69,434.46	58,061.10	1,693.46	2.50%
7000 70104 Plant Operator w/Long	58,776.64	59,415.00	60,899.86	50,697.45	1,484.86	2.50%
7000 70511 Wastewater Super OT	1,693.49	9,000.00	9,000.00	6,838.13	0.00	0.00%
7000 70513 Asst. Superintendent OT	15,132.06	9,000.00	9,000.00	13,082.71	0.00	0.00%
7000 70514 Plant Operator OT	10,116.10	9,000.00	9,000.00	8,087.42	0.00	0.00%
7000 Salaries	289,766.88	290,930.00	297,513.00	256,433.63	6,583.00	2.26%
7000 70900 Social Security	19,548.28	22,256.00	22,899.00	17,604.77	643.00	2.89%
7000 70901 Health & Dental	36,801.44	44,841.00	47,571.00	32,014.80	2,730.00	6.09%
7000 70902 Worker's Compensation	9,000.00	9,000.00	9,000.00	10,860.78	0.00	0.00%
7000 70904 Retirement	28,646.32	30,042.00	30,042.00	20,598.73	0.00	0.00%
7000 70906 Life Insurance	669.60	550.00	670.00	279.00	120.00	21.82%
7000 70336 Clothing Allowance	158.13	1,500.00	1,500.00	344.99	0.00	0.00%
7000 70339 License Fees	0.00	0.00	1,800.00	1,800.00	1,800.00	# DIV/0!
7000 Benefits	94,823.77	108,189.00	113,482.00	83,503.14	5,293.00	4.89%
7000 TOTAL SALARY & BENEFITS	384,590.65	399,119.00	410,995.00	339,936.77	11,876.00	2.98%
7002 70001 Power - Electricity	38,251.51	38,000.00	38,000.00	26,576.11	0.00	0.00%
7002 70002 Chemicals	2,365.47	2,500.00	2,500.00	2,152.25	0.00	0.00%
7002 70003 Heat	9,846.86	9,000.00	9,500.00	10,649.81	500.00	5.56%
7002 70004 Water	2,370.42	2,200.00	2,200.00	1,570.99	0.00	0.00%
7002 70005 Chlorine	5,097.96	7,000.00	7,000.00	1,403.22	0.00	0.00%
7002 70006 Equipment Maintenance	21,034.02	22,000.00	22,000.00	17,690.06	0.00	0.00%
7002 70007 Misc Supplies, Office Cleaning	9,812.55	5,000.00	5,000.00	7,062.32	0.00	0.00%
7002 70008 Laboratory Supplies	2,120.07	4,500.00	4,500.00	1,065.09	0.00	0.00%
7002 70009 Telephone	551.52	750.00	750.00	620.43	0.00	0.00%
7002 70010 Alarm Lines	6,725.10	5,500.00	5,500.00	4,571.01	0.00	0.00%
7002 70011 Sludge Composting	36,650.70	39,400.00	39,400.00	33,593.63	0.00	0.00%
7002 70012 Truck Operation & Maintenance	439.07	1,000.00	1,000.00	329.68	0.00	0.00%
7002 70013 Gas - Truck	127.68	2,500.00	2,500.00	78.79	0.00	0.00%
7002 70014 State Mandated Testing	21,939.44	20,000.00	22,400.00	19,832.02	2,400.00	12.00%
7002 70201 Audit	1,500.00	2,500.00	2,500.00	0.00	0.00	0.00%
7002 70315 Training	471.00	1,000.00	1,000.00	357.00	0.00	0.00%
7002 70600 Professional Services	2,000.00	2,000.00	2,000.00	205.00	0.00	0.00%
7002 Wastewater Treatment Facility	161,303.37	164,850.00	167,750.00	127,757.41	2,900.00	1.76%
7003 70017 Pumping Station #3 (W Ferry)	4,354.07	4,000.00	4,000.00	2,685.27	0.00	0.00%
7003 70018 Pumping Station #1 (Bayview)	20,384.48	15,000.00	15,000.00	14,215.90	0.00	0.00%
7003 70019 Pumping Station #2 (Hamilton)	10,028.22	10,000.00	10,000.00	7,722.85	0.00	0.00%
7003 70020 Pumping Station #4 (Maple)	569.63	750.00	750.00	461.10	0.00	0.00%
7003 Pumping Stations	35,336.40	29,750.00	29,750.00	25,085.12	0.00	0.00%
7004 70598 Equipment Insurance	4,000.00	4,000.00	4,000.00	4,000.00	0.00	0.00%
7004 Insurance	4,000.00	4,000.00	4,000.00	4,000.00	0.00	0.00%
7005 70021 Maintenance and Cleaning	4,733.40	6,500.00	6,500.00	100.00	0.00	0.00%
70050xxx Jet Vac Truck Lease	10,916.83	21,793.00	21,892.00	0.00	99.00	0.45%
70050xxx Slip Lining	0.00	42,225.00	41,625.00	0.00	-600.00	-1.42%
7005 70605 West Ferry Extension Notes	17,548.59	5,580.00	5,580.00	58,478.51	0.00	0.00%
7005 Sanitary Sewers, Laterals&Mains	33,198.82	76,098.00	75,597.00	58,578.51	-501.00	-0.66%
7081 70801 Capital Expense	12,094.29	50,000.00	50,000.00	1,130.31	0.00	0.00%
TOTAL EXPENSES	630,523.53	723,817.00	738,092.00	556,488.12	14,275.00	1.97%



Town of Jamestown
Public Works Department

93 Narragansett Ave ♦ Jamestown, RI 02835

Phone: (401) 423-7225

Fax: (401) 423-7226

January 25, 2019

Ms. Angela L. Harvey
Rhode Island Department of Health
Center for Drinking Water Quality
Three Capitol Hill
Providence, RI 02908

RE: PWS#1858419
Second Round of LT2ESWTR Sampling

Dear Ms. Harvey:

Jamestown water has completed the second round of E. Coli sampling of our raw water as required under the Long Term 2 Enhanced Surface Water Treatment Rule. Samples were collected twice per month between October 3, 2017 and September 18, 2018 from the North Reservoir at the intake to the transmission main (ID# IN 001) and a sample tap from well JR-1 (when in use). Attached is a summary table of our E. Coli analytical results for the samples collected. The total value of the source water results for each day of sampling was calculated as a weighted average of reservoir and well as indicated on the attached Figure 3 from Appendix E of the Source Water Guidance Manual for Public Water Systems prepared by the EPA.

The summary table provides the total flow received from the reservoir and well, and the total received at the plant for each day of sampling. Using the total flows, we were able to determine the percentage of contribution from each source to calculate the total weighted value for E. Coli. The annual mean E. Coli concentration for the total weighted values of the 26 samples collected is 34.5 MPN/100 ml.

There are two samples that we believe are questionable, one collected on October 17, 2017 with a result of 350 MPN/100 ml and the second on October 31, 2017 with a result of 540 MPN/100 ml for the reservoir. The sample collected on October 17, 2017 indicated that the sample was analyzed using method FDA BAM/MOD/MPN which we received a Notice of Violation from the RIDOH. BAL Laboratory used Method Colilert for the sample collected on October 31, 2017. Subsequent samples using either Method Colilert or SM9223B were much lower ranging between <1.0 MPN/100 mL and 17.3 MPN/100 mL. It appears there may have been an error on both samples analyzed in October 2017.

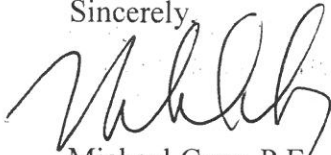
After reviewing the analytical results for the first round conducted in 2008 and 2009 and this second round of sampling, we believe that the two samples in October 2017 do not represent our

source water quality. The average mean for this second round of sampling without the two samples analyzed in October 2017 is 4.2 MPN/100 ml.

The mean E. Coli concentration for 26 samples including the two that are in question exceeds the 10 MPN/100mL which may trigger Cryptosporidium monitoring. We have contacted our lab to determine the cost of cryptosporidium analysis. Samples would need to be shipped to the certified laboratory in Vermont for analysis. The total estimated cost for 24 samples including shipping is \$14,890 which is 70% of our overall budget for laboratory testing for an entire year.

If you have any questions or need additional information please contact me at (401) 423-7225.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Gray', written over the word 'Sincerely'.

Michael Gray, P.E.
Public Works Director

Cc: Paul White, Superintendent

JAMESTOWN WATER

PWSID: R1185419

Test Date	Total Plant Volume (Gallons)	Pond Flow Volume	Pond % Total Flow	Pond Sample Result	Pond Weighted Sample Result	Well Flow Volume	Well % Total Flow	Well Sample Result	Well Weighted Sample Result	Total Weighted Sample Result
10/3/2017	180506	158306	87.7%	17.0 MPN/100ml	14.9	22200	12.3%	< 2.0 MPN/100ml	0	14.9
10/17/2017	203336	182636	89.8%	*350.0 MPN/100ml	314.3	20700	10.2%	< 2.0 MPN/100ml	0	314.3
10/31/2017	169999	149699	88.1%	*540.0 MPN/100ml	475.7	20300	11.9%	< 2.0 MPN/100ml	0	475.7
11/14/2017	225098	225098	100%	16.0 MPN/100ml	16.0				N/A	16.0
11/28/2017	148231	148231	100%	17.3 MPN/100ml	17.3				N/A	17.3
12/12/2017	164020	164020	100%	3.0 MPN/100ml	3.0				N/A	3.0
12/26/2017	176548	176548	100%	1.0 MPN/100ml	1.0				N/A	1.0
1/9/2018	372513	372513	100%	< 1.0 MPN/100ml	0				N/A	0
1/23/2018	169168	169168	100%	8.1 MPN/100ml	8.1				N/A	8.1
2/6/2018	160725	160725	100%	< 1.0 MPN/100ml	0				N/A	0
2/20/2018	131053	131053	100%	< 1.0 MPN/100ml	0				N/A	0
3/6/2018	155272	155272	100%	5.2 MPN/100ml	5.2				N/A	5.2
3/20/2018	160226	160226	100%	< 1.0 MPN/100ml	0				N/A	0
4/3/2018	188416	188416	100%	1.0 MPN/100ml	1.0				N/A	1.0
4/17/2018	133009	133009	100%	6.3 MPN/100ml	6.3				N/A	6.3
5/1/2018	148322	132322	89.2%	1.0 MPN/100ml	0.9	16000	10.8%	< 1.0 MPN/100ml	0	0.9
5/15/2018	183674	162674	88.6%	2.0 MPN/100ml	1.8	21000	11.4%	< 1.0 MPN/100ml	0	1.8
5/29/2018	217891	193891	89.0%	6.3 MPN/100ml	5.6	24000	11.0%	< 1.0 MPN/100ml	0	5.6
6/12/2018	241325	213725	88.6%	3.1 MPN/100ml	2.7	27600	11.4%	< 1.0 MPN/100ml	0	2.7
6/26/2018	310921	276721	89.0%	< 1.0 MPN/100ml	0	34200	11.0%	< 1.0 MPN/100ml	0	0
7/10/2018	409887	364587	89.0%	6.3 MPN/100ml	5.6	45300	11.0%	< 1.0 MPN/100ml	0	5.6
7/24/2018	322118	255418	79.3%	7.4 MPN/100ml	5.9	66700	20.7%	< 1.0 MPN/100ml	0	5.9
8/7/2018	321353	278353	86.6%	3.1 MPN/100ml	2.7	43000	13.4%	< 1.0 MPN/100ml	0	2.7
8/21/2018	296894	260894	87.9%	1.0 MPN/100ml	0.9	36000	12.1%	< 1.0 MPN/100ml	0	0.9
9/4/2018	228831	196831	86.0%	1.0 MPN/100ml	0.9	32000	14.0%	< 1.0 MPN/100ml	0	0.9
9/18/2018	154912	126912	81.9%	1.0 MPN/100ml	0.8	28000	18.1%	< 1.0 MPN/100ml	0	0.8
										SUM OF ALL SAMPLES: 890.6 MPN/100ml
										AVERAGE OF 26 SAMPLES: 34.3 MPN/100ml
										SUM OF 28 SAMPLES: 100.6 MPN/100ml
										AVERAGE OF 24 SAMPLES: 4.2 MPN/100ml

* Note: Laboratory used incorrect testing method