

Two Rivers Water Reclamation Authority

One Highland Avenue • Monmouth Beach, New Jersey 07750

(732) 229-8578 • Fax (732) 870-1442

<http://trwra.org>

*Fair Haven
Little Silver
Monmouth Beach*

*Oceanport
Shrewsbury
West Long Branch*

TO: The Mayors of Eatontown, Fair Haven, Little Silver, Monmouth Beach, Oceanport, Red Bank, Rumson, Sea Bright, Shrewsbury Borough, Shrewsbury Township, Tinton Falls, West Long Branch, Eatontown Sewerage Authority Chairman

FROM: Michael A. Gianforte, P.E., Executive Director

DATE: June 2017

SUBJECT: Community Update – First and second Quarter 2017

In order to keep all towns served by Two Rivers Water Reclamation Authority informed about the activities of the Authority, we hereby provide this periodic update.

This is a summary of reports and action taken at the Authority's recent public meetings.

Operations Manager Retirement

After 31 years in the industry, Greg Seaman has retired from the Authority. Dennis Galvin, Engineering Manager is now managing the Operations of the Authority and should be contacted on any matter previously addressed by Greg. The Authority has hired an Operations Technician, Nicholas Gizzi, to assist Dennis in his normal duties.

Flow increases in 2017

The Flow Report for the first half of 2017 is attached. (The 2016 annual and 2016 Q2 flow letters and an analysis of 2017 vs 2015 and 2016 are also attached for reference.) The report illustrates the increase in flow from every town as a result of the higher than normal rainfall. Towns with greater increases in flow have a higher percentage of total plant flow which is what the annual bill is based on.

PROJECTS RESULTING FROM RECENT PIPE INTERNAL INSPECTION

The following is a list of projects that resulted from the internal inspection of sewer lines and manholes performed by Red Zone Robotics.

Pipe Cleaning

- a. All pipe 18 inches and smaller identified to require cleaning have been cleaned and re-televised.
- b. Cleaning of pipe larger than 18 inches will be advertised for bid and work is expected to start in early FYE2018.



"Setting The Standard In Water Reclamation"

Customer Towns: Eatontown • Fort Monmouth • Red Bank • Rumson • Sea Bright • Shrewsbury Township • Tinton Falls

Manhole Rehabilitation

- a. Three deep manholes in high traffic areas were identified for complete replacement. (The replacement cost was estimated to be over \$120,000.) The Authority was able to rehabilitate them as a pilot project and saved over \$100,000.
- b. Approximately 30 additional manholes require various levels of rehabilitation. The project will be bid and completed in early FYE2018.

Pipe Repair

a. Minor pipes

The Authority has identified spot repairs or small diameter pipe replacements that will continue to be completed in the normal course of business utilizing the bid emergency contractor. It is anticipated that no specific town has a major expense associated with the minor pipe repair other than the Authority.

b. Major pipe

Major pipe deterioration has been identified downstream of the influent from Red Bank and a project will be designed in FYE 2017 to address the issue.

The interceptor downstream of Pump Station 12 which serves Eatontown, Tinton Falls, Shrewsbury Township and the Authority will also be reviewed for the necessity of a major repair project.

Rebuild of Belt Filter Press Project

The Authority completed the rebuild of the 16 year old Belt Filter Press to match the press installed last year.

Biofilter Media Replacement

The replacement of media in the treatment plant biofilters is complete. This project is performed ever 5 years and negates the need to use chemicals for odor control in the treatment plant.

Aeration Basin Diffuser Replacement and Grit Removal Contract

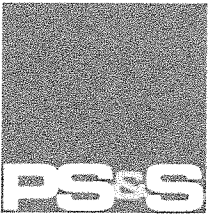
The Authority's contractor has begun the removal of grit from the aeration basins as part of the diffuser membrane replacement project. The membranes have an expected life of just over 5 years and the Authority was able to operate efficiently for over 16 years with the existing diffuser membranes. The major expense on the project includes removal of almost 100 tons of sludge soaked grit from the bottom of 20 foot deep confined space aeration tanks. The grit must be removed from below a grid of over 4,000 aeration diffusers.

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"Setting The Standard In Water Reclamation"

Customer Towns: Eatontown • Fort Monmouth • Red Bank • Rumson • Sea Bright • Shrewsbury Township • Tinton Falls



May 18, 2017

Project No. 05070-0033

Two Rivers Water Reclamation Authority
1 Highland Avenue
Monmouth Beach, New Jersey 07750

Attn: Mr. Michael A. Gianforte, P.E., Executive Director

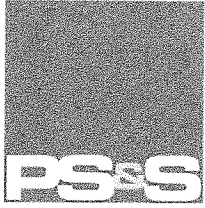
**Re: Fiscal Year (FY) 2017 1st and 2nd Quarters Flow Summary Report
Member and Customer Town Flows**

Dear Mr. Gianforte:

This interim report is being prepared in response to the request from the Two Rivers Water Reclamation Authority (Authority) for the certification of its annual flow percentages for the Authority's customer municipalities. PS&S has examined the Authority's recorded raw flow data for the first and the second quarters of the fiscal year 2017.

The following table summarizes the total adjusted wastewater flows and customer town percentages for the first and the second quarters of the fiscal year 2017. Flow reported in the table below is adjusted for un-metered flow through direct connections and contractual minimums in accordance with agreements. Additionally, in accordance with the 2017 agreement, the total flow from the Fort Monmouth meter was split as follows: the 50% of the total flow was added to the Eatontown total and 50% of the flow was added to the member municipalities total.

Customer Town	Total Wastewater Flow (FY 2017), Gallons	Percent Flow
Eatontown	339,496,620	18.6177%
Red Bank	236,073,147	12.9460%
Rumson	274,270,000	15.0407%
Sea Bright	79,843,000	4.3785%
Shrewsbury Township	40,317,814	2.2110%
Tinton Falls	190,918,066	10.8105%
Customer Total	1,160,918,647	63.6637%
Member Municipalities Total	662,598,353	36.3363%
Plant Total	1,823,517,000	100.0000%



May 18, 2017
Mr. Michael A. Gianforte, P.E., Executive Director
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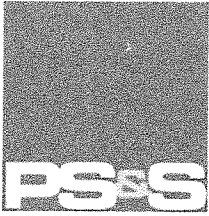
Should you have any questions or require additional information, please do not hesitate to call me at 848-206-2616.

Very truly yours,

PAULUS, SOKOLOWSKI & SARTOR, LLC
DRAFT

John Vena, P.E.
Associate Principal

cc: Dennis Galvin, P.E., TRWRA Engineering Manager



February 24, 2017

Project No. 05070-0033

Two Rivers Water Reclamation Authority
1 Highland Avenue
Monmouth Beach, New Jersey 07750

Attn: Mr. Michael A. Gianforte, P.E., Executive Director

**Re: Fiscal Year (FY) 2016 Annual Wastewater Flow Summary Report
Amended for FY 2017 Billing
Member and Customer Town Flows**

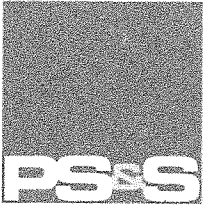
Dear Mr. Gianforte:

This report is being prepared in response to the request from the Two Rivers Water Reclamation Authority (Authority) for the certification of its annual flow percentages for the Authority's customer municipalities. PS&S has examined the Authority's recorded raw flow data for the FY 2016. Herein follows the translated flow information.

The following table summarizes the total adjusted wastewater flows and customer town percentages for the fiscal year 2016. Flow reported in the table below is adjusted for un-metered flow through direct connections and contractual minimums in accordance with agreements. Additionally, this flow report was amended in preparation for the FY 2017 billing cycle. As such, the total flow from the Fort Monmouth meter (40,255,200 gallons) was split as follows: the 50% of the total flow (20,127,600 gallons) was added to the Eatontown total and 50% of the flow was added to the member municipalities total.

Customer Town	Total Wastewater Flow (FY 2016), Gallons	Percent Flow
Eatontown	592,554,094	18.0163%
Red Bank	453,509,293	13.7887%
Rumson	459,519,429	13.9715%
Sea Bright	136,249,571	4.1426%
Shrewsbury Township	53,921,117	1.6394%
Tinton Falls	351,511,533	10.6875%
Customer Total	2,047,265,038	62.2460%
Member Municipalities Total	1,241,722,962	37.7540%
Plant Total	3,288,988,000	100.0000%

Central Monmouth
Business Park
1433 Highway 34
Suite A-4
Wall, NJ 07727
t. 848.206.2626



February 24, 2017
Mr. Michael A. Gianforte, P.E., Executive Director
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Should you have any questions or require additional information, please do not hesitate to call me at 848-206-2617.

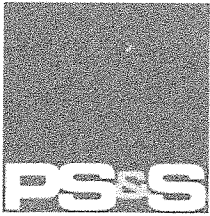
Very truly yours,

PAULUS, SOKOLOWSKI & SARTOR, LLC

A handwritten signature in black ink, appearing to read 'Natalya Shimunova'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Natalya Shimunova, P.E.
Associate

cc: John Vena, P.E., PS&S
Dennis Galvin, P.E., TRWRA Engineering Manager
Greg Seaman, TRWRA Superintendent



May 13, 2016
 Revised August 29, 2016

Project No. 05070-0033

Two Rivers Water Reclamation Authority
 1 Highland Avenue
 Monmouth Beach, New Jersey 07750

Attn: Mr. Michael A. Gianforte, P.E., Executive Director

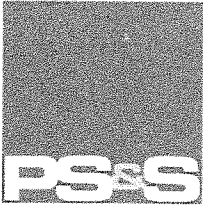
**Re: Fiscal Year (FY) 2016 2nd Quarter Flow Summary Report
 Member and Customer Town Flows**

Dear Mr. Gianforte:

This interim report is being prepared in response to the request from the Two Rivers Water Reclamation Authority (Authority) for the certification of its annual flow percentages for the Authority's customer municipalities. PS&S has examined the Authority's recorded raw flow data for the second quarter of the FY 2016. Herein follows the translated flow information.

The following table summarizes the total wastewater flows for the second quarter of the fiscal year 2016 and customer town percentages for that period (February 1, 2016 through April 30, 2016). Flow reported in the table below is adjusted for un-metered flow through direct connections and contractual minimums in accordance with agreements.

Customer Town	Total (Adjusted) Wastewater Flow (February 1, 2016 through April 30, 2016)	Percent Flow (Adjusted)
Eatontown	146,352,045	16.6935%
Military	28,597,000	3.2619%
Red Bank	117,555,949	13.4089%
Rumson	130,495,000	14.8848%
Sea Bright	31,934,000	3.6425%
Shrewsbury Township	15,407,300	1.7574%
Tinton Falls	97,195,280	11.0865%
Customer Total	567,536,574	64.7355%
Member Municipalities Total	309,163,926	35.2645%
Plant Total (Adjusted)	876,700,500	100%



May 13, 2016
Revised August 29, 2016
Mr. Michael A. Gianforte, P.E., Executive Director
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 848-206-2617.

Very truly yours,

PAULUS, SOKOLOWSKI & SARTOR, LLC
DRAFT

David J. Applegate, P.E.
Associate Principal

cc: Dennis Galvin, P.E., TRWRA Engineering Manager
Greg Seaman, TRWRA Superintendent

DATE	EATONTOWN	RED BANK	RUMSON	SEABRIGHT	SHREWSBURY TWP	TINTON FALLS	CUSTOMER TOTAL	PLANT FLOW	MEMBER FLOW
November-15	42,584,250	34,293,000	32,932,857	7,835,143	3,864,700	26,534,050	148,044,000	237,149,000	89,105,000
December-15	45,115,780	35,961,000	36,552,857	8,013,143	4,263,400	29,039,820	158,946,000	254,908,000	95,962,000
January-16	46,551,850	36,373,000	40,317,857	12,430,143	4,562,317	30,950,833	171,190,000	279,446,000	108,256,000
February-16	47,978,290	37,308,000	44,764,286	11,718,714	5,673,300	34,260,410	181,705,000	301,734,000	120,029,000
March-16	48,796,880	40,386,000	46,847,857	9,176,143	5,302,000	32,900,120	183,409,000	296,970,000	113,561,000
April-16	45,443,250	36,753,000	37,613,571	12,308,429	4,430,000	30,034,750	166,583,000	269,128,000	102,545,000
1st&2nd Qts Sub-Total	276,470,300	239,029,286	239,029,286	61,485,714	28,097,717	183,719,983	1,009,877,000	1,639,335,000	629,458,000
Annual Contract Adjustments (I)	18,331,050	6,274,147	227,348,147	61,485,714	28,097,717	183,719,983	24,605,197	1,639,335,000	-24,605,197
TOTAL TO DATE	294,801,350	245,303,433	466,377,433	122,971,428	56,195,434	367,439,966	1,034,482,197	3,278,670,000	604,852,803
	17.9830%	13.8683%	14.5809%	3.7506%	1.7140%	11.2070%	63.1038%	100.0000%	36.8962%

DATE	EATONTOWN	RED BANK	RUMSON	SEABRIGHT	SHREWSBURY TWP	TINTON FALLS	CUSTOMER TOTAL	PLANT FLOW	MEMBER FLOW
Nov-16	47,586,720	35,245,000	36,367,143	9,602,857	5,312,600	25,927,680	160,042,000	251,767,000	91,725,000
Dec-16	49,852,260	37,343,000	41,111,429	9,660,571	6,106,300	28,774,440	172,848,000	276,045,000	103,197,000
Jan-17	52,834,730	38,709,000	47,333,571	19,600,429	7,433,914	34,224,356	200,136,000	316,831,000	116,695,000
Feb-17	52,591,870	35,371,000	42,505,000	10,414,000	5,972,000	28,711,130	175,565,000	270,887,000	95,322,000
Mar-17	52,554,540	39,895,000	45,632,143	14,029,857	6,990,900	40,436,170	193,238,000	314,049,000	120,811,000
Apr-17	56,644,000	43,236,000	61,320,714	16,535,286	8,590,100	39,056,900	225,383,000	393,938,000	168,555,000
1st&2nd Qts Sub-Total	312,064,120	229,799,000	274,270,000	79,843,000	40,317,814	197,130,676	1,127,212,000	1,823,517,000	696,305,000
Annual Contract Adjustments (I)	27,432,500	6,274,147	274,270,000	79,843,000	40,317,814	197,130,676	33,706,647	1,823,517,000	-33,706,647
TOTAL TO DATE	339,496,620	236,073,147	548,540,000	159,686,000	80,635,628	394,261,352	1,160,918,647	3,647,034,000	662,598,353
	18.6177%	12.9460%	15.0407%	4.3785%	2.2110%	10.8105%	63.6637%	100.0000%	36.3363%

DATE	EATONTOWN	RED BANK	RUMSON	SEABRIGHT	SHREWSBURY TWP	TINTON FALLS	CUSTOMER TOTAL	PLANT FLOW	MEMBER FLOW
Nov-14	48,892,320	37,784,000	41,981,000	9,588,000	4,355,500	45,342,680	187,943,500	283,365,000	95,421,500
Dec-14	59,524,770	46,753,000	56,901,000	13,526,000	5,943,800	40,538,680	223,187,250	361,213,000	138,025,750
Jan-15	56,334,680	47,184,000	54,915,714	11,367,286	5,074,100	38,356,470	213,232,250	350,634,000	137,401,750
Feb-15	50,886,600	45,705,000	48,905,000	10,226,000	4,401,200	34,003,200	194,137,000	318,086,000	123,959,000
Mar-15	59,689,340	55,100,000	58,489,286	11,566,714	6,025,000	42,698,410	233,569,750	387,776,000	154,206,250
Apr-15	50,081,510	45,924,000	47,971,429	10,861,571	4,108,300	33,722,190	192,669,000	313,948,000	121,279,000
1st&2nd Qts Sub-Total	325,409,220	278,450,000	309,163,429	67,135,571	29,908,900	234,661,630	1,244,728,750	2,015,022,000	770,293,250
Annual Contract Adjustments (I)	8,267,250	6,217,897	309,163,429	67,135,571	29,908,900	234,661,630	14,485,147	2,015,022,000	-14,485,147
TOTAL TO DATE	333,676,470	284,667,897	618,326,858	134,271,142	59,817,800	464,323,260	1,259,213,897	4,030,044,000	755,808,103
	16.5594%	14.1273%	15.3429%	3.3318%	1.4843%	11.6456%	62.4913%	100.0000%	37.5087%

FY 2016 vs. FY 2017

	SHREWSBURY				CUSTOMER		MEMBER		
	EATONTOWN	RED BANK	RUMSON	SEABRIGHT	TWP	TINTON FALLS	TOTAL	PLANT FLOW	FLOW
November	11.75%	2.78%	10.43%	22.56%	37.46%	-2.29%	8.10%	6.16%	2.94%
December	10.50%	3.84%	12.47%	20.56%	43.23%	-0.91%	8.75%	8.29%	7.54%
January	13.50%	6.42%	17.40%	57.63%	62.94%	10.58%	16.91%	13.38%	7.80%
February	9.62%	-5.19%	-5.05%	-11.13%	5.23%	-16.20%	-3.38%	-10.22%	-20.58%
March	7.70%	-1.22%	-2.60%	52.89%	30.19%	22.91%	5.36%	5.75%	6.38%
April	24.65%	17.64%	63.03%	34.34%	93.91%	30.04%	35.30%	46.38%	64.37%
Total: Nov-April	15.16%	3.84%	14.74%	29.86%	43.49%	7.30%	12.22%	11.24%	9.55%

FY 2015 vs. FY 2017

	SHREWSBURY				CUSTOMER		MEMBER		
	EATONTOWN	RED BANK	RUMSON	SEABRIGHT	TWP	TINTON FALLS	TOTAL	PLANT FLOW	FLOW
November	-2.67%	-6.72%	-13.37%	0.15%	21.97%	-42.82%	-14.85%	-11.15%	-3.87%
December	-16.25%	-20.13%	-27.75%	-28.58%	2.73%	-29.02%	-22.55%	-23.58%	-25.23%
January	-6.21%	-17.96%	-13.81%	72.43%	46.51%	-10.77%	-6.14%	-9.64%	-15.07%
February	3.35%	-22.61%	-13.09%	1.84%	35.69%	-15.56%	-9.56%	-14.84%	-23.10%
March	-11.95%	-27.60%	-21.98%	21.30%	14.55%	-5.30%	-17.27%	-19.01%	-21.66%
April	13.10%	-5.85%	27.83%	52.24%	109.09%	15.82%	16.98%	25.48%	38.98%
Total: Nov-April	1.74%	-17.07%	-11.29%	18.93%	34.80%	-15.99%	-7.81%	-9.50%	-12.33%