

EXHIBIT 3

2014 CHAPTER 94 REPORT - LOG COLLEGE WTP

- **TABLE 1 HYDRAULIC LOADINGS (2010-2014)**
- **TABLE 2 ORGANIC LOADINGS (2010-2014)**
- **TABLE 3 FIVE-YEAR PROJECTION OF NEW WASTEWATER FLOWS**
- **TABLE 4 FIVE-YEAR PROJECTION OF FLOWS AND LOADS (INCLUDES NAWC WTP)**

TABLE 1						
HYDRAULIC LOADING (IN MGD) TO WARMINSTER LOG COLLEGE WASTEWATER TREATMENT PLANT						RAINFALL (INCHES)
MONTH	2010	2011	2012	2013	2014	2014
January	7.6	4.0	6.55	5.95	7.89	2.46
February	8.0	7.5	4.64	5.99	11.03	2.40
March	13.7	9.9	4.45	6.95	8.44	3.63
April	7.1	8.1	3.75	5.81	8.55	4.96
May	4.2	5.5	4.01	5.43	8.59	4.31
June	3.6	3.9	3.79	8.20	5.05	3.51
July	3.7	3.4	3.25	6.98	4.27	3.00
August	3.1	7.8	4.20	5.94	3.82	2.50
September	3.3	13.0	4.38	4.43	3.73	1.68
October	4.3	6.5	4.11	4.15	3.96	4.11
November	3.9	6.8	4.34	4.19	4.62	4.14
December	4.7	8.2	5.48	6.64	5.99	3.83
Annual Average (in mgd)	3-Month High (mgd)		Ratio 3-Month High/ Annual Avg.			Total Rain (inches)
2010: 5.60 2011: 7.05 2012: 4.41 2013: 5.89 2014: 6.33	9.77 9.10 5.21 7.04 9.34		1.74 1.29 1.18 1.20 1.48			40.5
Plant Design Flow: 8.18 mgd Plant Hydraulic Rating: 13.5 mgd						
NOTES:						
1. Historic Ratio of 3-month high to annual average is 1.38. This factor is used in determining 3-month high projection shown in Figure 1. Projected annual average value is multiplied by factor to arrive at 3-month high projection for each year.						
2. The Authority acknowledges the request from DEP (letter of August 28, 2009) to install an influent meter at this treatment plant. Due to the high cost associated with the installation of an influent meter, the Authority cannot comply with this request at this time. The Authority will consider this meter installation if a future project allows for the placement of an influent meter. The current plant configuration would not allow an influent meter installation without major modifications to the plant.						

TABLE 2
ORGANIC LOADING (IN THOUSAND POUNDS)
TO
WARMINSTER LOG COLLEGE WASTEWATER TREATMENT PLANT

MONTH	2010	2011	2012	2013	2014
January	12.6	6.9	10.8	10.3	7.959
February	13.4	8.7	9.9	10.6	9.195
March	13.0	10.6	6.1	10.4	7.681
April	10.5	8.0	7.2	11.5	8.358
May	8.6	8.4	7.9	9.4	7.901
June	7.0	7.8	7.1	6.9	8.223
July	8.0	6.6	7.2	7.7	7.453
August	6.6	9.9	7.4	5.9	6.269
September	6.5	14.3	8.1	8.5	9.102
October	9.0	8.6	8.1	6.6	7.259
November	7.7	9.5	8.4	7.9	9.736
December	8.1	11.3	8.8	7.8	7.019
Annual Average (in thousand pounds per day)	Maximum Month		Ratio Max. Month/ Annual Avg.		
2010: 9.3	13.4		1.44		
2011: 9.2	14.3		1.55		
2012: 8.1	10.8		1.33		
2013: 8.6	11.5		1.34		
2014: 8.0	9.7		1.21		

Plant Rating: 16,500 thousand pounds per day⁽¹⁾

⁽¹⁾Plant was re-rated to 16,500 lbs./day by permit dated 12/28/2011.

NOTE:

Historic Ratio of maximum month to annual average is 1.37. This factor is used in determining maximum month projection shown in Figure 3. Projected annual average value is multiplied by factor to arrive at maximum month projection for each year.

**TABLE 3
FIVE-YEAR PROJECTION OF NEW WASTEWATER FLOWS
LOG COLLEGE WASTEWATER TREATMENT PLANT SERVICE AREA**

SOURCE	2015	2016	2017	2018	2019
Warminster Township (See Appendix H)	6,907	5,470	2,959	1,480	2,398
Warrington Township (See Appendix H)	38,400	35,525	34,200	33,850	32,165
TOTAL	45,307	40,995	37,159	35,330	34,563
ACCUMULATED TOTALS	45,307	86,302	123,461	158,791	193,354
BASE WTP FLOW, PLUS ACCUMULATED TOTALS (MGD)*	5.91	5.95	5.98	6.02	6.05
PROJECTED 3-MONTH HIGH FLOW (MGD)	8.16	8.21	8.25	8.31	8.35
PROJECTED AVG., PLANT LOADING (1000 LBS.)**	8.01	8.14	8.21	8.26	8.32
PROJECTED MAX. MONTH LOADING (1000 LBS.)	10.97	11.15	11.25	11.32	11.40

*Annual average used for projections is 5-year average annual average flow (5.86).

** 2014 average was used for projections of 5-year average annual load (8.00).

NOTES:

- (1) Projected 3-month high for flows based on factor of 1.38- see Table 1.
- (2) Projected max. month for loading based on factor of 1.37- see Table 2.
- (3) Projected loading based on BOD concentration of 200 mg/l.

**TABLE 4
FIVE-YEAR PROJECTIONS OF WASTEWATER FLOWS AND LOADS
LOG COLLEGE WWTP WITH NATC WWTP
FLOW DIVERSION**

SOURCE	2015	2016	2017	2018	2019
Projected Flows - Log College WWTP - Table 3	5.905	5.946	5.983	6.018	6.053
Projected Flows - NATC WWTP	0.118	0.120	0.123	0.125	0.128
TOTAL PROJECTED FLOWS (MGD)	6.02	6.07	6.11	6.14	6.18
Projected 3-Month High Log College WWTP - Table 3	8.16	8.21	8.25	8.31	8.35
Projected 3-Month High NATC WWTP	0.135	0.137	0.140	0.143	0.146
TOTAL PROJECTED 3-MONTH HIGH (MGD)	8.30	8.35	8.39	8.45	8.50
Projected BOD Loading Log College WWTP - Table 3	8,010	8,140	8,210	8,260	8,320
Projected BOD Loading NATC WWTP	295	301	307	313	319
TOTAL PROJECT BOD LOADING (LBS./DAY)	8,305	8,441	8,517	8,573	8,639
Projected Max. Month BOD Loading Log College WWTP - Table 3	10,970	11,150	11,250	11,320	11,400
Projected Max. Month BOD Loading NATC WWTP	431	439	448	457	466
TOTAL MAX. MONTH BOD LOADING (LBS./DAY)	11,401	11,589	11,698	11,777	11,866

NOTES:

1. NATC projections are taken from Table 4 of NATC Chapter 94 Report for 2014. See Appendix I.
2. Flows are in million gallons per day (mgd).
3. BOD projections are in pounds per day.