TOWNSHIP OF BONNECHERE VALLEY **EGANVILLE SEWAGE TREATMENT PLANT** **YEAR 2017**

WATER AND SEWAGE DEPARTMENT **MONITORING SUMMARY REPORT**

MONTH	FLOWS			BIOCHEMICAL OXYGEN DEMAND				TOTAL SUSPENDED SOLIDS			
	TOTAL X1000m3	AVG.DAY X1000m3	MAX DAY X1000m3	BOD5 INF 24HR COMP mg/L	* CBOD5 EFF 24HR COMP mg/L	PERCENT REMOVAL %	** EFF LOADING kg/day	INF 24HR COMP mg/L	EFF MONTHLY AVG CONC mg/L	PERCENT REMOVAL %	** EFF LOADING kg/day
JAN.	15.102	0.487	0.569	138	3.0	97.83	1.46	88	7.0	92.05	3
FEB.	17.607	0.629	1.266	175	3.0	98.29	1.89	86	6.5	92.44	4
MAR.	29.703	0.958	1.563	167	3.0	98.20	2.87	53	6.5	87.74	6
APR.	46.696	1.557	2.347	29	6.0	79.31	9.34	61	7.5	87.70	12
MAY	50.021	1.614	2.951	27	3.0	88.89	4.84	79	8.0	89.87	13
JUN.	26.465	0.882	1.210	83	3.0	96.39	2.65	106	4.0	96.23	4
JUL.	30.921	0.997	1.247	44	3.0	93.18	2.99	81	5.0	93.83	5
AUG.	18.563	0.599	0.714	83	3.0	96.39	1.80	76	4.0	94.74	2
SEP.	14.324	0.477	0.599	77	3.0	96.10	1.43	134	6.0	95.52	3
OCT.	11.894	0.384	0.630	202	3.0	98.51	1.15	71	8.0	88.73	3
NOV.	15.711	0.524	0.659	93	3.0	96.77	1.57	139	6.0	95.68	3
DEC.	16.146	0.521	0.846	127	3.0	97.64	1.56	114	7.0	93.86	4
TOTAL	293.153										
AVERAGE	24.429	0.802	1.217	104	3.3	94.79	2.80	91	6.3	92.37	5.16
MAX	50.021	1.614	2.951	202	6.0	98.51	9.34	139	8	96.23	12.91
LIMITS		**1.080**	**2.700**		**25**		**27**		**25**		**27**
OBJECTIVES					**15**		**16.2**		**15**		**16.2**

* CBOD5 - sample analysis reported as <3 mg/L (MDL is 3mg/L)

** EFF Loading - based on monthly average daily flow

Average Daily Flow: 803 m3

CBOD5 Annual Average Concentration: 3.3 mg/L

CBOD5 Annual Average Loading: 2.65 kg/day

TSS Annual Average Concentration: 6.3 mg/L

TSS Annual Average Loading: 5.06 kg/day

TOWNSHIP OF BONNECHERE VALLEY
WATER AND SEWAGE DEPARTMENT

EGANVILLE SEWAGE TREATMENT PLANT
MONITORING SUMMARY REPORT

YEAR 2017

MONTH	TOTAL PHOSPHORUS				TKN	pH		
	INF 24HR COMP	EFF MONTHLY AVG CONC	PERCENT REMOVAL	** EFF LOADING	INF 24HR COMP	INFLUENT AVERAGE	EFFLUENT MINIMUM	EFFLUENT MAXIMUM
	mg/L	mg/L	%	kg/day	mg/L			
JAN.	4.70	0.45	90.43	0.22	35.90	8.14	6.83	7.18
FEB.	4.10	0.04	99.02	0.03	54.40	8.09	6.77	7.22
MAR.	3.10	0.08	97.42	0.08	33.50	7.93	7.11	7.36
APR.	3.50	0.36	89.71	0.56	7.64	7.95	7.18	7.46
MAY	4.50	0.57	87.33	0.92	7.91	7.84	7.20	7.49
JUN.	2.10	0.42	80.00	0.37	24.50	7.78	7.03	7.30
JUL.	1.10	0.48	56.36	0.48	17.00	7.60	7.30	7.58
AUG.	2.00	0.43	78.50	0.26	19.30	7.31	7.10	7.50
SEP.	18.30	0.50	97.27	0.24	27.40	7.62	6.87	7.00
OCT.	8.90	0.43	95.17	0.17	34.40	7.80	6.82	7.30
NOV.	10.00	0.30	97.00	0.16	31.50	7.99	6.73	7.59
DEC.	5.80	0.38	93.45	0.20	45.30	7.71	6.67	7.00
AVERAGE	5.68	0.37	88.47	0.31	28.23	7.81	6.97	7.33
MAX	18.30	0.57	99.02	0.92			6.67	7.59
LIMITS		**1.00**		**1.10**			**>6**	**<8.5**
OBJECTIVES		**1.00**		**1.10**			**>6.5**	**<8.5**

** EFF Loading - based on monthly average daily flow

Total Phosphorus Annual Average Loading: 0.30 kg/day

TOWNSHIP OF BONNECHERE VALLEY **EGANVILLE SEWAGE TREATMENT PLANT** **YEAR 2017**

WATER AND SEWAGE DEPARTMENT **MONITORING SUMMARY REPORT**

MONTH	Total Flow	Sodium Hypochorite			* E. coli	Pre Hydr Alum Sulphate		Sodium Bisulphite		Number of By-passes
	X1000m3	Kg Used	Dosage mg/l	Effluent Residual mg/l	Counts per 100ml	Kg Used	Dosage mg/l	Kg Used	Dosage mg/l	
JAN.	15.102	53.90	3.57	0.0	2	1079.90	71.51	53.58	3.55	0
FEB.	17.607	86.60	4.92	0.0	2	1012.40	57.50	49.40	2.81	0
MAR.	29.703	83.90	2.82	0.0	2	851.79	28.68	57.76	1.94	0
APR.	46.696	136.50	2.92	0.0	15	1516.10	32.47	89.68	1.92	0
MAY	50.021	165.60	3.31	0.0	17	1718.60	34.36	77.52	1.55	0
JUN.	26.465	111.80	4.22	0.0	3	1205.00	45.53	59.66	2.25	0
JUL.	30.921	139.90	4.52	0.0	2	1606.10	51.94	70.30	2.27	0
AUG.	18.563	107.60	5.80	0.0	2	1099.30	59.22	39.14	2.11	0
SEP.	14.324	85.70	5.98	0.0	2	921.78	64.35	37.62	2.63	0
OCT.	11.894	77.20	6.49	0.0	20	741.17	62.31	41.42	3.48	0
NOV.	15.711	98.60	6.28	0.0	2	926.78	58.99	53.58	3.41	0
DEC.	16.146	77.90	4.82	0.0	3	879.28	54.46	50.92	3.15	0
TOTAL	293.153	1225.20				13558.20		680.58		
AVERAGE	24.429	102.10	4.64	0.0	6	1129.85	51.78	56.72	2.59	
MAX	50.021	165.6	6.49		20	1718.60	71.51	89.68	3.55	
LIMITS					**<200**					
OBJECTIVES					**<200**					

* E. coli - monthly geometric mean density

TOWNSHIP OF BONNECHERE VALLEY **EGANVILLE SEWAGE TREATMENT PLANT** **YEAR 2017**
WATER AND SEWAGE DEPARTMENT **MONITORING SUMMARY REPORT**

Date	Effluent Total Ammonia Nitrogen NH3-N		Effluent Unionized Ammonia NH3	Date	Effluent Total Ammonia Nitrogen NH3-N		Effluent Unionized Ammonia NH3	Date	Effluent Total Ammonia Nitrogen NH3-N		Effluent Unionized Ammonia NH3
	mg/l	kg/day	ug/l		mg/l	kg/day	ug/l		mg/l	kg/day	ug/l
Jan.3/17	0.01	0.00	0.02	Mar.8/17	0.26	0.25	0.85	May3/17	0.01	0.02	0.04
Jan.9/17	1.22	0.59	1.16	Mar.15/17	0.20	0.19	0.37	May10/17	0.10	0.16	0.48
Jan.10/17	0.52	0.25	0.77	Mar.22/17	0.01	0.01	0.03	May17/17	0.09	0.15	0.56
Jan.16/17	1.20	0.58	1.42	Mar.29/17	0.10	0.10	0.18	May24/17	0.17	0.27	1.17
Jan.23/17	0.01	0.00	0.02					May31/17	0.16	0.26	0.9
Jan.24/17	0.09	0.06	0.18								
Feb.6/17	0.40	0.25	0.42	Apr.5/17	0.01	0.02	0.03	Jun.7/17	0.01	0.01	0.03
Feb.7/17	0.02	0.01	0.02	Apr.12/17	0.14	0.22	0.39	Jun.14/17	0.01	0.01	0.05
Feb.13/17	0.02	0.01	0.13	Apr.19/17	0.01	0.02	0.04	Jun.21/17	0.01	0.01	0.06
Feb.14/17	0.06	0.04	0.05	Apr.26/17	0.01	0.02	0.05	Jun.28/17	0.01	0.01	0.05
Feb.21/17	0.42	0.26	0.65								
Feb.27/17	0.01	0.00	0.03								
MAX.	1.22	0.59	1.42		0.26	0.25	0.85		0.17	0.27	1.17
LIMITS	**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**

TOWNSHIP OF BONNECHERE VALLEY **EGANVILLE SEWAGE TREATMENT PLANT** **YEAR 2017**
WATER AND SEWAGE DEPARTMENT **MONITORING SUMMARY REPORT**

Date	Effluent Total Ammonia Nitrogen NH3-N		Effluent Unionized Ammonia NH3	Date	Effluent Total Ammonia Nitrogen NH3-N		Effluent Unionized Ammonia NH3	Date	Effluent Total Ammonia Nitrogen NH3-N		Effluent Unionized Ammonia NH3
	mg/l	kg/day	ug/l		mg/l	kg/day	ug/l		mg/l	kg/day	ug/l
Jul.5/17	0.03	0.03	0.17	Sept.6/17	0.03	0.01	0.17	Nov.1/17	0.03	0.02	0.22
Jul.11/17	0.03	0.03	0.45	Sept.12/17	0.03	0.01	0.09	Nov.8/17	0.03	0.02	0.31
Jul.19/17	0.03	0.03	0.19	Sept.20/17	0.03	0.01	0.07	Nov.14/17	0.04	0.02	0.13
Jul.26/17	0.09	0.09	0.90	Sept.27/17	0.03	0.01	0.09	Nov.22/17	0.02	0.01	0.03
		0.00						Nov.29/17	0.03	0.02	0.05
Aug.2/17	0.03	0.02	0.19	Oct.4/17	0.03	0.01	0.08	Dec.6/17	0.03	0.02	0.04
Aug.8/17	0.02	0.01	0.22	Oct.10/17	0.03	0.01	0.09	Dec.12/17	0.05	0.03	0.06
Aug.16/17	0.02	0.01	0.18	Oct.18/17	0.04	0.02	0.10	Dec.20/17	0.04	0.02	0.05
Aug.23/17	0.02	0.01	0.16	Oct.25/17	0.05	0.02	0.18	Dec.27/17	0.04	0.02	0.05
Aug.30/17	0.03	0.01	0.16								
MAX.	0.09	0.09	0.90		0.05	0.02	0.18		0.05	0.03	0.31
LIMITS	**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**

TOWNSHIP OF BONNECHERE VALLEY
WATER AND SEWAGE DEPARTMENT

EGANVILLE SEWAGE TREATMENT PLANT
SLUDGE MONITORING REPORT

YEAR: 2017

ANALYSIS FOR GRAB SAMPLE OF ACTIVATED SLUDGE FROM AEROBIC DIGESTER																
MONTH	**SLUDGE**	**PHOS.**	**TOTAL**	**VOLATILE**	**AMMONIA**	**Arsenic**	**Cadm.**	**Cobalt**	**Chrom.**	**Copper**	**Merc.**	**Moly**	**Nickel**	**Lead**	**Selen.**	**Zinc**
	Processed		**SOLIDS**	**SOLIDS**	**NITRATE**	**As**	**Cd**	**Co**	**Cr**	**Cu**	**Hg**	**Mo**	**Ni**	**Pb**	**Se**	**Zn**
	m3	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
JAN.	169															
FEB.	92															
MAR.	42															
APR.	103															
MAY	110															
JUN.	10	667	21,700	15,100	11.50	0.10	0.03	0.03	0.30	7.92	0.012	0.11	0.23	0.1	0.10	4.27
JUL.	35															
AUG.	73															
SEPT.	105															
OCT.	43	618	24,400	13,600	4.61	0.10	0.03	0.05	0.41	10.50	0.008	0.10	0.29	0.4	0.10	9.85
NOV.	60															
DEC.	48															
TOTAL	**890**															
AVG.	**74**	**643**	**23050**	**14350**	**4.61**	**0.10**	**0.03**	**0.04**	**0.36**	**9.21**	**0.01**	**0.11**	**0.26**	**0.25**	**0.10**	**7.06**

ANALYSIS FOR COMPOSITE SAMPLE OF DEWATERED SLUDGE PRIOR TO REMOVAL FROM GEOTUBES																
Geotube	**Volume**	**% Solids**	**% V.S.**	**Total P**	**Ammonia (N)**	**As**	**Cd**	**Co**	**Cr**	**Cu**	**Hg**	**Mo**	**Ni**	**Pb**	**Se**	**Zn**
#	**m3**			**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
3B6	**76.1**	**14.2**	**55.6**	**34200**	**1620**	**2.00**	**0.50**	**1.00**	**18.00**	**394.00**	**0.22**	**3.0**	**12.0**	**8.0**	**2.0**	**219.0**
TOTAL	**76.1**															
AVG.		**14.20**	**55.60**	**34200**	**1620**	**2.00**	**0.50**	**1.00**	**18.00**	**394.00**	**0.22**	**3.00**	**12.00**	**8.00**	**2.00**	**219.00**

TOWNSHIP OF BONNECHERE VALLEY
WATER AND SEWAGE DEPARTMENT

EGANVILLE SEWAGE TREATMENT PLANT
SLUDGE MONITORING REPORT

YEAR: 2017

METALS	MAXIMUM PERMISSIBLE METAL CONCENTRATIONS (AGRICULTURAL USE) (mg/kg of solids)	AVERAGE METAL CONCENTRATIONS IN DIGESTER SLUDGE (mg/kg of solids)	AVERAGE METAL CONCENTRATIONS IN GEOTUBE SLUDGE (mg/kg of solids)	DEWATERED BIOSOLIDS HAULED TO SAND ROAD WASTE DISPOSAL SITE				
				DATE	Geotube	Volume	%Total	E. coli
					#	m3	Solids	cts/100ml
ARSENIC (As)	170	4.34	2					
CADMIUM (Cd)	34	1.30	0.50	Nov.1,2017	3B6	76.1	14.2	700
COBALT (Co)	340	1.74	1.00					
CHROMIUM (Cr)	2800	15.40	18.00					
COPPER (Cu)	1700	399.57	394					
MERCURY (Hg)	11	0.43	0.22					
MOLYBDENUM (Mo)	94	4.56	3.00	**TOTAL**		76.1		
NICKEL (Ni)	420	11.28	12.00					
LEAD (Pb)	1100	10.85	8.00					
SELENIUM (Se)	34	4.34	2.00					
ZINC (Zc)	4200	306.29	219					