TOWNSHIP OF BONNECHERE VALLEY **EGANVILLE SEWAGE TREATMENT PLANT** **2018**

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.	14.829	0.478	0.620	110	3.0	97.27	1.43	148	5	96.62	2
FEB.	13.801	0.493	0.913	67	3.0	95.52	1.48	87	5	94.25	2
MAR.	16.082	0.519	0.630	97	3.0	96.91	1.56	54	6	88.89	3
APR.	30.155	1.005	1.450	59	3.0	94.92	3.02	112	5	95.54	5
MAY	24.528	0.791	1.236	192	3.0	98.44	2.37	63	6	90.48	5
JUN.	16.909	0.564	0.875	71	3.0	95.77	1.69	74	5	93.24	3
JUL.	12.692	0.409	0.579	247	3.0	98.79	1.23	166	6	96.39	2
AUG.	10.513	0.339	0.413	174	3.0	98.28	1.02	70	5	92.86	2
SEP.	9.350	0.312	0.379	155	3.0	98.06	0.94	120	5	95.83	2
OCT.	11.642	0.378	0.502	102	3.0	97.06	1.13	88	4	95.45	2
NOV.	15.132	0.504	0.744	104	3.0	97.12	1.51	161	6	96.27	3
DEC.	15.608	0.503	0.587	67	3.0	95.52	1.51	149	6	95.97	3
TOTAL	191.241										
AVERAGE	15.937	0.525	0.744	120	3.0	96.97	1.57	108	5.3	94.32	2.82
MAX	30.155	1.005	1.450	247	3.0	98.79	3.02	166	6	96.62	5.03
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: 524 m3

CBOD5 Annual Average Concentration: 3.0 mg/L

CBOD5 Annual Average Loading: 1.57 kg/day

TSS Annual Average Concentration: 5.3 mg/L

TSS Annual Average Loading: 2.78 kg/day

EGANVILLE SEWAGE TREATMENT PLANT
MONITORING SUMMARY REPORT

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.	9.50	0.23	97.58	0.11	55.8	7.74	6.62	6.76
FEB.	5.20	0.33	93.65	0.16	33.0	7.80	6.57	6.91
MAR.	3.20	0.25	92.19	0.13	32.1	8.12	6.85	7.21
APR.	2.60	0.41	84.23	0.41	21.7	7.79	7.06	7.39
MAY	2.70	0.27	90.00	0.21	19.8	7.80	7.02	7.17
JUN.	3.00	0.31	89.67	0.17	28.5	7.78	7.01	7.24
JUL.	3.90	0.41	89.49	0.17	48.0	7.89	6.77	7.02
AUG.	4.90	0.48	90.20	0.16	51.2	7.89	6.89	7.08
SEP.	6.73	0.50	92.57	0.16	48.4	8.26	6.58	7.18
OCT.	3.60	0.29	91.94	0.11	44.9	7.60	6.71	7.03
NOV.	7.90	0.39	95.06	0.20	35.3	8.29	6.85	7.75
DEC.	7.80	0.18	97.69	0.09	41.3	8.29		
AVERAGE	5.09	0.34	92.02	0.17	38.33		6.81	7.16
MAX(MIN)	9.50	0.50	97.69	0.41			6.57	7.75
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: 0.18 kg/day

EGANVILLE SEWAGE TREATMENT PLANT
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.	14.829	75.10	5.06	0.0	2	950.53	64.10	48.64	3.28	0
FEB.	13.801	72.30	5.24	0.0	2	996.15	72.18	38.76	2.81	0
MAR.	16.082	78.00	4.85	0.0	3	1103.60	68.62	41.80	2.60	0
APR.	30.155	129.72	4.30	0.0	2	1762.30	58.44	82.84	2.75	0
MAY	24.528	99.96	4.08	0.0	2	1066.10	43.46	66.12	2.70	0
JUN.	16.909	75.12	4.44	0.0	2	778.04	46.01	63.84	3.78	0
JUL.	12.692	83.16	6.55	0.0	2	625.56	49.29	32.30	2.54	0
AUG.	10.513	81.12	7.72	0.0	2	553.69	52.67	26.22	2.49	0
SEP.	9.350	69.36	7.42	0.0	2	626.81	67.04	28.12	3.01	0
OCT.	11.642	72.24	6.21	0.0	2	803.04	68.98	36.86	3.17	0
NOV.	15.132	72.24	4.77	0.0	2	799.29	52.82	40.66	2.69	0
DEC.	15.608	69.60	4.46	0.0	2	696.80	44.64	66.12	4.24	0
TOTAL	191.241	977.92				10761.91		572.28		
AVERAGE	15.937	81.49	5.42	0.0	2	896.83	57.35	47.69	3.00	
MAX	30.155	129.72	7.72		3	1762.30	72.18	82.84	4.24	
LIMITS					**<200**					
OBJECTIVES					**<200**					

* E. coli - monthly geometric mean density

EGANVILLE SEWAGE TREATMENT PLANT
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	0.03	0.01	0.02	Mar.7	0.02	0.01	0.05	May 2	0.02	0.02	0.08
Jan.9	0.02	0.01	0.01	Mar.13	0.02	0.01	0.03	May 8	0.02	0.02	0.05
Jan.17	0.02	0.01	0.02	Mar.21	0.03	0.02	0.05	May 16	0.03	0.02	0.06
Jan.24	0.02	0.01	0.02	Mar.28	0.02	0.01	0.04	May 23	0.07	0.06	0.22
Jan.31	0.02	0.01	0.02					May 30	0.03	0.02	0.09
Feb.7	0.01	0.00	0.01	Apr.4	0.06	0.06	0.10	Jun. 6	0.03	0.02	0.07
Feb.13	0.01	0.00	0.01	Apr.10	0.07	0.07	0.20	Jun. 12	0.03	0.02	0.08
Feb.21	0.02	0.01	0.01	Apr.18	0.02	0.02	0.04	Jun. 20	0.02	0.01	0.08
Feb.28	0.02	0.01	0.03	Apr.25	0.10	0.10	0.23	Jun. 27	0.03	0.02	0.11
MAX.	0.03	0.01	0.03		0.10	0.10	0.23		0.07	0.06	0.22
LIMITS	**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**

EGANVILLE SEWAGE TREATMENT PLANT
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. 4	0.03	0.01	0.14	Sep. 5	0.03	0.01	0.08	Nov. 7	0.03	0.02	0.07
Jul. 11	0.05	0.02	0.16	Sep. 11	0.02	0.01	0.09	Nov. 13	0.03	0.02	0.06
Jul. 18	0.03	0.01	0.11	Sep. 19	0.04	0.01	0.11	Nov. 21	0.04	0.02	0.06
Jul. 25	0.04	0.02	0.1	Sep. 26	0.04	0.01	0.11	Nov. 28	0.07	0.04	0.13
Aug. 1	0.03	0.01	0.11	Oct. 3	0.03	0.01	0.06	Dec. 5	0.09	0.05	0.22
Aug. 8	0.06	0.02	0.19	Oct. 9	0.03	0.01	0.09	Dec. 11	0.06	0.03	0.11
Aug. 14	0.13	0.04	0.51	Oct. 17	0.02	0.01	0.05	Dec. 19	0.05	0.03	0.10
Aug. 22	0.16	0.05	0.79	Oct. 24	0.05	0.02	0.08	Dec. 27	0.01	0.01	0.03
Aug. 29	0.03	0.01	0.04	Oct. 31	0.05	0.02	0.08				
MAX.	0.16	0.05	0.79		0.05	0.02	0.11		0.09	0.05	0.22
LIMITS	**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**		**5.00**	**5.40**	**20**

ANALYSIS FOR GRAB SAMPLE OF ACTIVATED SLUDGE FROM AEROBIC DIGESTER #1																
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.	56															
FEB.	173															
MAR.	94															
APR.	21															
MAY	117															
JUN.	151															
JUL.	14															
AUG.	70															
SEPT.	134															
OCT.	111	566	18,100	11,500	2.85	0.10	0.03	0.04	0.30	8.04	0.005	0.10	0.26	0.40	0.10	8.52
NOV.	0															
DEC.	32															
TOTAL	**973**															
AVG.	**81**	**566**	**18100**	**11500**	**2.85**	**0.10**	**0.03**	**0.04**	**0.30**	**8.04**	**0.01**	**0.10**	**0.26**	**0.40**	**0.10**	**8.52**

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**
1B(6)	**70.75**	**14.2**	**41.2**	**39800**	**1890**	**2**	**0.7**	**2**	**16**	**416**	**0.38**	**3**	**13**	**13**	**3**	**311**
2A(8)	**73.50**	**13.1**	**46.8**	**38100**	**2870**	**2**	**0.5**	**2**	**15**	**360**	**0.74**	**3**	**25**	**10**	**2**	**270**
TOTAL	**144.25**															
AVG.		**13.65**	**44.00**	**38950**	**2380**	**2.0**	**0.60**	**2.0**	**15.5**	**388.00**	**0.56**	**3.0**	**19.0**	**11.5**	**2.5**	**290.5**

EGANVILLE SEWAGE TREATMENT PLANT
SLUDGE MONITORING REPORT

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 SNODRIFTER ROAD WASTE DISPOSAL SITE				
				DATE	Geotube	Volume	%Total	E. coli
					#	m3	Solids	cts/100ml
ARSENIC (As)	170	5.52	2					
CADMIUM (Cd)	34	1.66	0.60	Nov. 1, 2018	1B(6)	70.75	14.2	700
COBALT (Co)	340	2.21	2.00					
CHROMIUM (Cr)	2800	16.57	15.50	Nov. 1, 2018	2A(6)	73.50	13.1	770
COPPER (Cu)	1700	444.20	388.00					
MERCURY (Hg)	11	0.28	0.56					
MOLYBDENUM (Mo)	94	5.52	3.00	**TOTAL**		144.25		
NICKEL (Ni)	420	14.36	19.00					
LEAD (Pb)	1100	22.10	11.50					
SELENIUM (Se)	34	5.52	2.50					
ZINC (Zc)	4200	470.72	290.5					