

Committee: Public Works, Environmental Services & Facilities

Date: February 18th, 2020

Department: Operations

Topic: 2019 4th Quarter Operations Report

SECTION 1: PUBLIC WORKS

1.1 Loose and Hardtop Maintenance

- Rural gravel roads were graded and shaped in preparation for winter activities
- 35 tonnes of cold patch applied to various asphalt roads
- Completed tree trimming and removal on various roads

1.2 Winter Control

- Completed preparation of truck and equipment for Winter control activities
- One major winter event early in November
- One Significant Weather Event at the end of December
- 12 Winter events
- 15-20 truckloads of snow removed from Spencerville and Cardinal combined

1.3 Miscellaneous

- Replaced 25-30 traffic signs on various roads to meet reflectivity standards

SECTION 2: WASTE DISPOSAL

- 271 vehicles attended the site over the 13 Saturdays in the quarter
- Punch card sales through office: \$ 370.00
- Punch card sales through Cardinal Library: \$ 1915.00
- Punch Card sales through PayPal: \$ 145.00
- Total punch card sales for this quarter: \$ 2430.00
- Free brush/leaf Drop-off at dump through November
- Fall Leaf and Brush pick-up in November

Cardinal Water Treatment Plant Flows				
Month	Monthly Flow (m³)	Minimum Daily Flow (m³)	Maximum Daily Flow (m³)	Average Daily Flow (m³)
October	13716	355	644	443
November	13234	305	593	441
December	12830	325	531	414

Summary of Operational Parameters for the Cardinal Water Treatment Plant									
	UV Transmittance	Filter 1A	Filter 1B	Filter 2A	Filter 2B	pH	Pressure	Raw Chlorine	Post Chlorine
Average	51.17	0.10	0.06	0.07	0.09	8.05	69	1.66	2.67
Unit	mJ/cm ²	NTU	NTU	NTU	NTU		PSI	mg/L	mg/L
Compliance	40	1	1	1	1	6.5-8.5	>20		>0.20

Microbiological Testing for the Cardinal Water System				
	Number of Samples	Total Coliform	<i>E. coli</i>	HPC (min-max)
October-December	52	0	0	0 - < 2
Compliance for TC/EC is zero. HPC guideline is less than 500.				

3.4: 2019 Fourth Quarter Summary Report for the Industrial Park

Microbiological Testing- Industrial Park				
	Number of Samples	Total Coliform	<i>E. coli</i>	HPC (min-max)
October-December	13	0	0	0 < 2
Compliance for TC/EC is zero. HPC guideline is less than 500.				

Description	Prysmian Chlorine Residual	Greenfield Chlorine Residual	Pressure (PSI)
Quarterly Average	0.84	0.64	70.9
Units	mg/L	mg/L	PSI
Compliance	>0.05	>0.05	>20

3.5: 2019 Fourth Quarter Report for Windmill Pumping Station

Month	Total Flow (m³)	Minimum Daily Flow (m³)	Maximum Daily Flow (m³)	Average Daily Flow (m³)
October	44926	0	1906	1449
November	44210	1260	1946	1474
December	44259	1241	1571	1428

* Minimum flow of 0 in October due to semi-annual service shut down at Greenfield Ethanol.

3.6: 2019 Fourth Quarter Report for Spencerville Lagoons

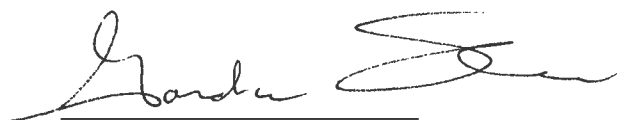
Month	Total Flow (m ³)	Minimum Daily Flow (m ³)	Maximum Daily Flow (m ³)	Average Daily Flow (m ³)
October	3216	76	215	104
November	4575	105	257	153
December	4344	104	191	140

3.7: 2019 Fourth Quarter Report for Cardinal WWTP

Month	Total Flow (m ³)	Minimum Daily Flow (m ³)	Maximum Daily Flow (m ³)	Average Daily Flow (m ³)
October	17814	356	1836	575
November	33348	757	3168	1112
December	26482	642	1374	854

October to December	BOD (mg/L)	Suspended Solids (mg/L)	Total Phosphorus (mg/L)	Ammonia (mg/L)	E.Coli
Average	3.0	3.0	0.08	0.15	3.4
Units	mg/L	mg/L	mg/L	mg/L	CFU
Compliance	25	25	1		
Objective	<15	<15	< 1	<4	<200

Month	BOD Removal	Suspended Solids Removal	Phosphorus Removal	Ammonia Removal
October	96%	96%	97%	99%
November	91%	95%	94%	99%
December	94%	96%	95%	100%


 Director of Operations