



TOWNSHIP OF EDWARDSBURGH CARDINAL INFORMATION ITEM

Committee: Administration and Operations

Date: February 13, 2023

Department: Operations

Topic: Fourth Quarter Operations Report

SECTION 1: PUBLIC WORKS

1.1 Loose and Hardtop Maintenance

- Maintenance Grading on granular surfaces
- Hard-top patching – on going

1.2 Winter Control

- Approximately 1750 tonnes of sand/salt mix applied to Township roads
- Perform regular Road Patrols
- 19 Winter ice and snow/drifts/freezing rain events in the quarter
- 1 Snow removal event in quarter in Cardinal and Spencerville
- 1 Significant Weather Event Issued by TWPEC from Dec 23 to Dec 25

1.3 Tenders

- County Road 2 infrastructure and road replacement tender issued by Jewell Engineering through Biddingo on December 15, 2022 and closed February 7, 2023.

1.4 Capital Projects

- Spencerville Drainage – Have received notification of Substantial Completion. Deficiencies noted by Public Works manager have been addressed.
- Johnstown Drainage – Sub-surface work has been completed and catch basins have been capped and covered to facilitate winter operations. GIP will return in the spring to pave Mary and complete any landscaping required.

1.5 Miscellaneous

- Emergency Cross Culvert Installation on Connell Rd (900mm x 18m)
- Install cross culvert on Blair Rd (300mm x 14m)
- Received and mixed Winter Sand for Winter Season (2800mt)
- Culvert Flushing at various locations

- Leaf and Yard Waste operations and collection
- Assist with the removal of Beaver Dams at 3 locations
- Replace 12 defective regulatory signs
- Public Works crew completed WHMIS Training
- Hiring of Rob Akins (Part-Time Employee for Spencerville sidewalk plow)
- Assist Environmental Services with Watermain breaks/replacement
- 93 service requests and 46 work orders completed
- Roadside garbage pick-up
- Roadside Brush and tree removal

SECTION 2: Waste Disposal

- 446 vehicles attended the site over the 13 Saturdays in the quarter
- Punch card sales through office: \$ 770.00
- Punch card sales through Cardinal Library: \$ 420.00
- Punch Card sales through Burchell's \$4297.50
- Punch Card sales through PayPal: \$ 200.00
- Total punch card sales for this quarter: \$5687.50
- 15.97t of Scrap metal removed from the Bone yard and Transfer station
- Free brush and leaf disposal at the transfer station in the month of November
- Brush and leaf pick-up in Cardinal, Johnstown, Spencerville and New Wexford in November
- HGC Management - Curbside Collection Tonnage for the 4th Quarter:

Garbage – 280.86 mt

Recycling – 94.56 mt

SECTION 3: Environmental Services

3.1: 2022 Fourth Quarter WTP Flows Summery

<u>Cardinal Water Treatment Plant Flows</u>				
Month	Monthly Flow (m³)	Minimum Daily Flow (m³)	Maximum Daily Flow (m³)	Average Daily Flow (m³)
October	12243	294	641	395
November	10695	296	423	357
December	12083	215	1162	390

Maximum flow in December due to two water main breaks on December 22, 2022

3.2: 2022 Fourth Quarter WTP Operational Parameters

Summary of Operational Parameters for the Cardinal Water Treatment Plant									
	UV Transmittance	Filter 1A	Filter 1B	Filter 2A	Filter 2B	pH	Pressure	Raw Cl2	Post Chlorine
Average	51.6	0.02	0.02	0.08	0.03	8.12	69.28	1.79	2.61
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

3.3: 2022 Fourth Quarter WTP Microbial Testing

Microbiological Testing for the Cardinal Water System				
	<u>Number of Samples</u>	<u>Total Coliform</u>	<u><i>E. coli</i></u>	<u>HPC (min-max)</u>
October - December	54	0	0	<2-16
Compliance for TC/EC is zero. HPC guideline is less than 500.				

3.4: 2022 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	<2-62
Compliance for TC/EC is zero. HPC guideline is less than 500.				

3.4: 2022 Fourth Quarter Summary Report for the Industrial Park con't

Description	Prysmian Chlorine Residual	Greenfield Chlorine Residual	Pressure (PSI)
Quarterly Average	0.89	0.77	73
Units	mg/L	mg/L	PSI
Compliance	>0.05	>0.05	>20

3.5: 2022 Fourth Quarter Report for Windmill Pumping Station

Month	<i>Total Flow (m³)</i>	<i>Minimum Daily Flow (m³)</i>	<i>Maximum Daily Flow (m³)</i>	<i>Average Daily Flow (m³)</i>
October	52012	1481	2571	1678
November	46137	1139	2290	1538
December	42484	976	1669	1370

3.6: 2022 Fourth Quarter Report for Spencerville Lagoons

Month	<i>Total Flow (m³)</i>	<i>Minimum Daily Flow (m³)</i>	<i>Maximum Daily Flow (m³)</i>	<i>Average Daily Flow (m³)</i>
October	3517	99	131	114
November	3314	93	185	110
December	5695	114	546	184

3.7: 2022 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	19108	443	1068	616
November	21908	501	1325	730
December	35282	785	2877	1138

October to December	BOD (mg/L)	Suspended Solids (mg/L)	Total Phosphorus (mg/L)	Ammonia (mg/L)	<i>E.Coli</i>
Average	3.1	3.4	0.11	0.16	4.2
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%	95%	95%	99%
November	95%	96%	95%	99%
December	95%	95%	96%	100%



Director of Operations