

Hauled Sewage Rate Update

PW 26-2024

Public Works Committee

September 10, 2024

What is Hauled Sewage?

- Hauled sewage is the waste transported from a residential or commercial/industrial source to a wastewater treatment plant for disposal
- Private sewage haulers are contracted by their customers to haul sewage to a WWTP for disposal



- An essential service to residents and businesses outside the wastewater collection service area

Hauled Sewage Disposal Stations



- Seven (7) locations approved for hauled sewage
- Six (6) full-service to accept all sewage types
- 1 location restricted to domestic sewage only (Niagara Falls)

More locations than any other municipality

Delivery of Hauled Sewage



Who Uses the Service?

- Over 900 businesses are registered as sewage generators and require hauled sewage treatment
 - Majority not in a serviced area, or
 - Have high strength sewage (e.g. wineries, breweries, distilleries, etc.)
- Approximately 21,000 residential properties in Niagara require hauled sewage services
- Volume of hauled sewage has doubled in last 10 years
 - 2011 - 12 million gallons (55,000 m³) from 4,800 trucks
 - 2021 - 23 million gallons (104,000 m³) from 9,600 trucks

Who Hauls the Sewage?



- Sewage haulers require permits from the Region
 - Regulated under Ministry of Environment, Conservation and Parks (MECP) approvals
 - 33 private haulers permitted to use Niagara Region facilities

Why Change is Needed

- PWC raised questions about current rate and how it compares to the true cost of hauled sewage treatment
- Proposed approach is intended to be fair and reasonable to all
- Ensures that rate payers are not subsidizing those using the hauled sewage program
- Properties outside of the serviced areas do not pay development charges, yet are taking up capacity that could otherwise be used for growth

Rate Setting History

1991

- Original rate developed by converting volume of hauled sewage to an equivalent volume of residential sewage based on the total suspended solids
- Rates set at \$40 and \$24 based on commercial and residential strengths, respectively

2007

- Consultant recommended increases in hauled sewage rates to approach cost recovery as rates had been in place for 14 years
- Single rate structure was put in place set at \$40/1000 gallons

2017

- Started to raise rate by increase of Wastewater budget approved by Council
- Annual increases until 2022 (currently \$46/1000 gallons)

2021

- A consultant was retained and reiterated recommendation for updated rates and a capital component

Key Updates to Rate Methodology

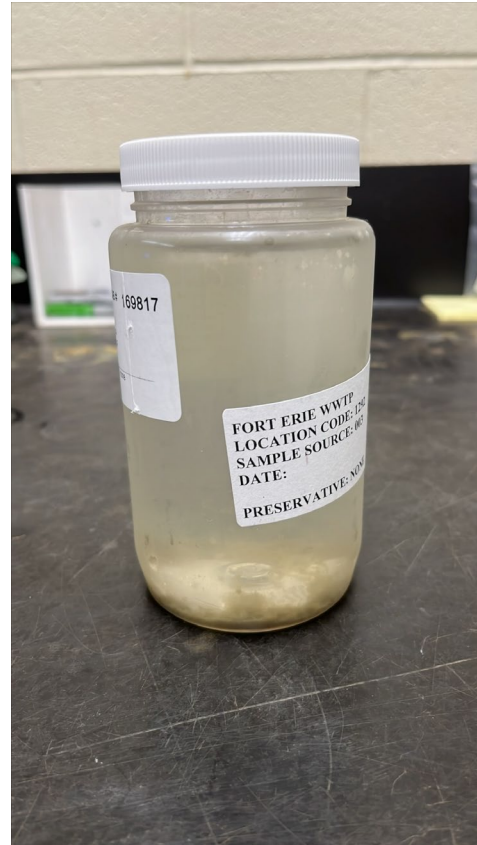
- Shift from single rate to a dual-rate structure using Weighted Pollutant Concentration Method
 - “low concentration” and “high concentration” sources
 - Cost to treat and remove pollutants from wastewater proportionally
- Includes O&M costs, capital sustainment and growth component of treatment costs
 - Only using wastewater treatment infrastructure costs - not the collection system
 - Rate needs to take into account all of these components to ensure that capacity for future growth is there when needed to support wineries, breweries, and food industry
- Cost recovery calculations use a 3-year historical average to be consistent with wastewater requisition methodology

What's included in the rate

- Costs for treatment (operating staff, chemicals, electricity, fuel, natural gas)
- Cost for sludge trucking and disposal
- Costs for repairs (maintenance staff, parts, lubricants) at the plant
- Costs for enforcement, laboratory services, compliance
- Costs for capital replacements, reserves, financing costs
- Costs for capital growth to ensure plant capacity is there for future development

Waste Types

Typical Sewage



High
Concentration
Sewage
(higher
concentration of
pollutants to
remove)

Selecting a Methodology

Weighted Pollutant Concentration Method



- Ensures fair and equitable rates for all users
- Includes O&M costs and Capital costs

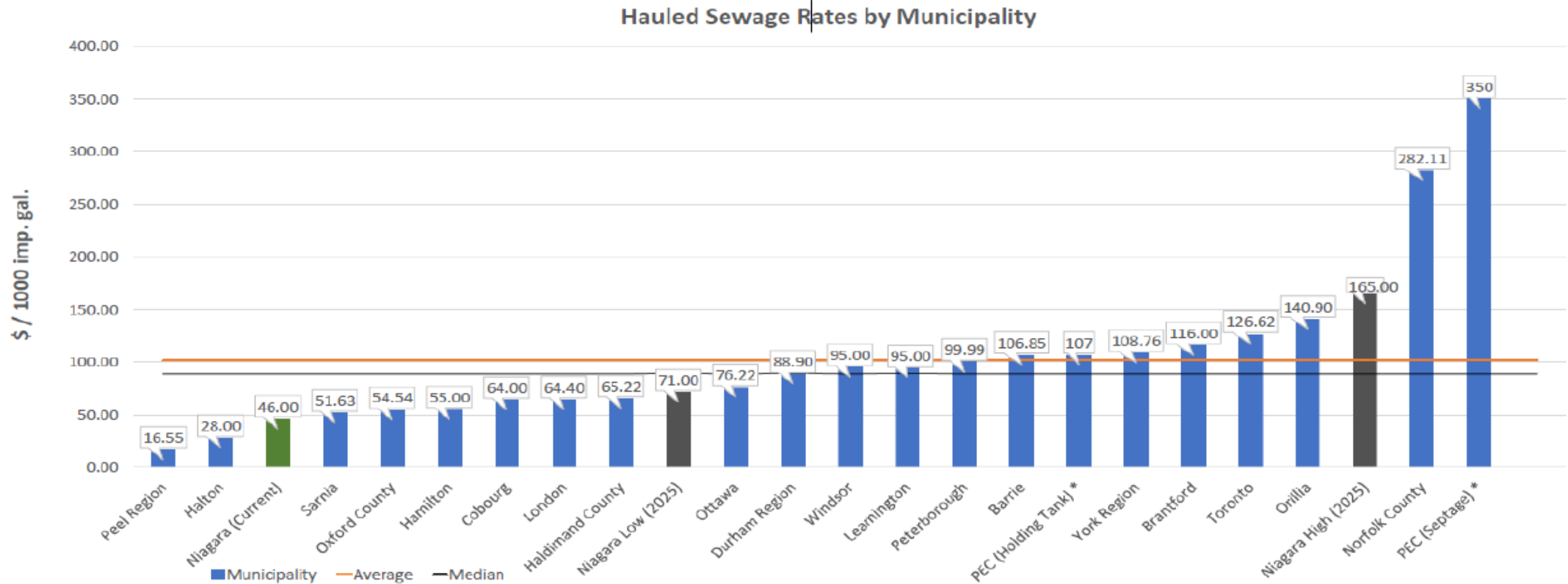
Pollutant Concentration Comparison

Average 3-Year Pollutant Concentrations (mg/L)

Pollutant	Regular Wastewater	Hauled Sewage Sources			
		LOW Concentration	HIGH Concentration		
Biochemical Oxygen Demand (BOD)	189	4,125	22x	18,761	99x
Total Suspended Solids (TSS)	252	9,003	36x	14,258	57x
Total Phosphorus (TP)	29	64	2x	80	3x
Total Kjeldahl Nitrogen (TKN)	17	491	28x	30	2x
TOTAL	487	13,683	28x	33,128	68x

- Hauled Sewage has significantly higher pollutant concentrations
- It is more costly to treat compared to regular wastewater
- Cannot simply apply wholesale rate to the volume of hauled sewage to determine cost - **Need to look at pollutant concentrations**

Municipality Comparison



* Prince Edward county does not accept winery waste as it is too pollutant dense and would negatively impact their treatment process

(1) Niagara is unique in its source demographic compared to neighboring municipalities with over 120 wineries

(2) Based on 2022 data (Peel, Hamilton , Prince Edward County based on 2024 data)

Next Steps

- Consultation Plan
 - Inform all interested parties about proposed change
 - Project page live on September 11 for 30-day comment period
<https://www.niagararegion.ca/projects/new-hauled-sewage-rate-review/default.aspx>
- Incorporate feedback as appropriate
- Draft rate will be reflected in W&WW rate budget for November 7
- Staff will seek Council endorsement as part of the Fees and Charges By-Law update (December 2024)

Questions

