



Salt Management Update

Presented By:

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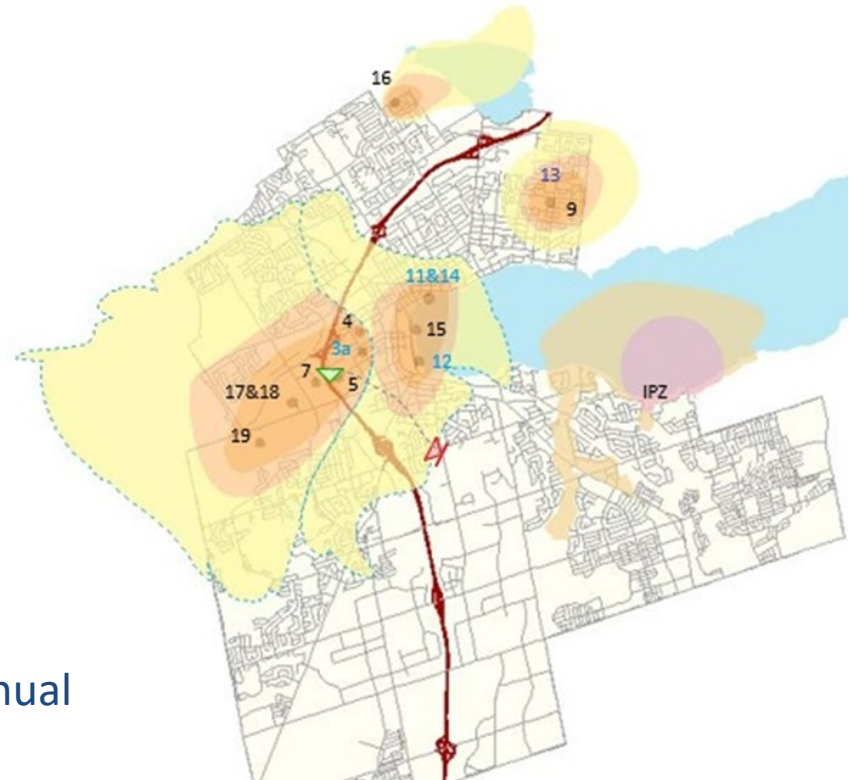
Why focus on salt?

- Environment Canada
- Clean Water Act
- Lake Simcoe Protection Plan
- Ontario Minimum Maintenance Standards



City of Barrie Context

- 14 drinking water supply wells, 1 surface water intake (Kempfenfelt Bay)
- Issue Contributing Area
- IC&I properties
- Legislative responsibilities
- Roads – 1,670 lane kilometers
- Sidewalks – 688 kilometers
- Storm pipes – 452 kilometers
- Storm culverts – 28 kilometers
- Terrain
- 5 Weather Zones
- Freeze-thaw conditions
- Snow accumulation – 2.9 m average annual
- Average winter events – 80
- Highway 400



Guiding Strategies

Winter Operations Plan The City of Barrie



OPERATIONS DEPARTMENT
May 23, 2024



2016

Salt Optimization Strategy



The City of
BARRIE



Primary Salt Reduction Measures

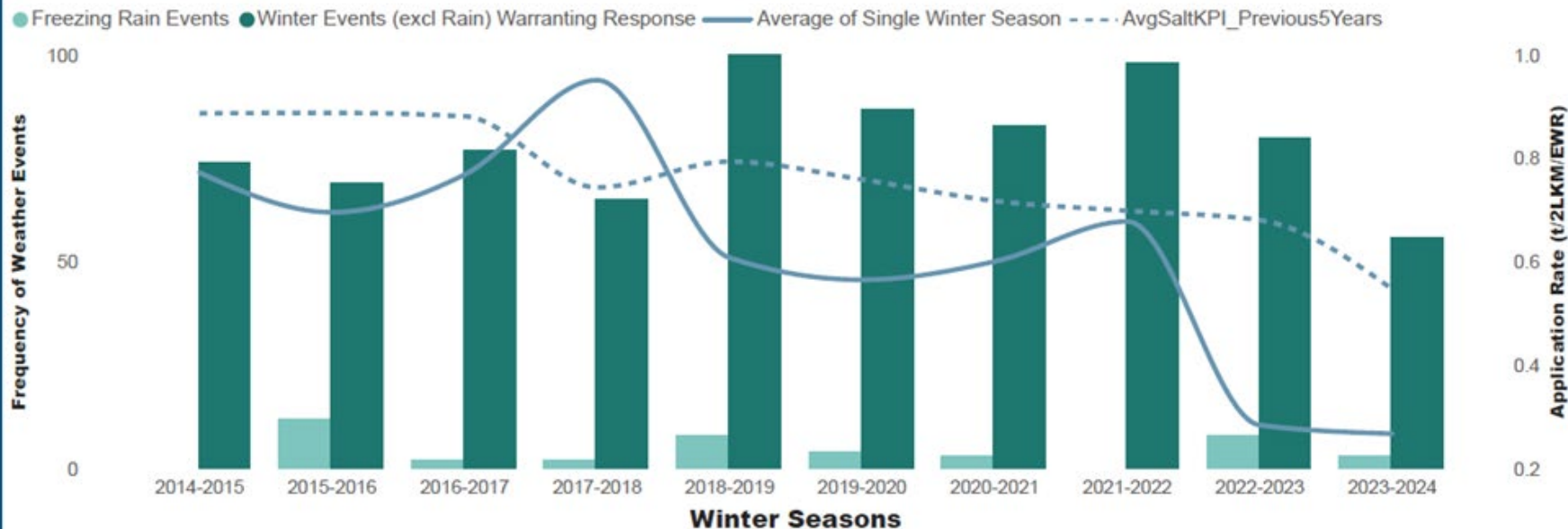


- Four-tier road priority system for maintenance
- Increased ploughing frequency
- Road Weather Information Stations
- Priority street sweeping in Drinking Water Source Vulnerable Areas

Road Salt KPI

Winter Season Salt Application

Season Average Compared to Rolling Average of Previous 5 Years and Frequency of Weather Events



Winter Seasons	Season Salt Usage (t)	Road Network in Salt Routes (2-Lane KM)	Freezing Rain Events	Winter Events Warranting Response (Event Response)	Salt KPI by Season (tonnes/2LKM/Event Response)	Salt KPI - Average of Previous 5-Seasons (tonnes/2LKM/Event Response)
2023-2024	11,964	798	3	56	0.27	0.55
2022-2023	17,699	778	8	80	0.28	0.68
2021-2022	29,046	437	0	98	0.68	0.70
2020-2021	21,545	432	3	83	0.60	0.72
2019-2020	21,254	432	4	87	0.57	0.76
2018-2019	26,273	432	8	100	0.61	0.79
2017-2018	26,722	432	2	65	0.95	0.74
2016-2017	20,188	341	2	77	0.77	0.88
2015-2016	16,380	341	12	69	0.70	0.89
2014-2015	19,500	341	0	74	0.77	0.89

Working with Stakeholders

- Design considerations for winter maintenance part of development review
- Continued work with private sector on Risk Management Plans



Education, Outreach and Collaboration



 **smart** ^{about} **salt**®

Winter Salt Management Program

Our Commitment

We're committed to working collaboratively as a team to develop innovative solutions that protect the environment.

Our approach ensures that safety is not compromised and that initiatives are executed in a fiscally-responsible manner.

