Drinking Water 1-2-3 Academy
Chloride Reduction Strategies for Local Government
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Director of Public Works
Community - Overview

- Incorporated in 1958
- Located 25 miles northwest of Chicago in Two Counties: 22% Cook County, 78% Lake County
- 41,778 Population
- 16,997 Households
- 9.3 Square Miles
- 115 Miles of Streets
- 138 Miles of Storm Sewer
- 39 Stormwater Detention Facilities
- 11 Miles of Streams
- 5 Watershed Areas (BC, AC, IC, MC & DPR)
Public Works - Overview

- 59 Employees
  - 50 Full Time
  - 9 Part Time/Seasonal
- Three Divisions:
  - Engineering
  - Maintenance (Street, Central Garage, Building Maintenance and Forestry & Grounds)
  - Utilities (Water, Sewer & Drainage)
- Annual Budget:
  - Operating: 21 Million
  - Capital: 9.6 Million

- First Accredited in 2004
- 16th Accredited Agency, 3rd in Illinois
- Currently One of 6 Agencies in Illinois
Snow & Ice Control - Overview

- Pre/Post Season Preparations
- Pre/Post Storm Preparations
- Anti-Icing Program
- Route Assignments & Mapping
- Response Levels
- Performance Goals & Objectives
- Pace/Metra & Municipal Campus
- Equipment
- Sidewalk Snow Removal
- Staffing & Assignments
- 5-Year Plan
- Materials & Handling
- Municipal Code Applicability
Snow & Ice Control - Overview

- 9 Salt/Plow Routes
- 115 Center Line Miles of Streets
- 526 Lane Miles
- Sidewalk Snow Removal for 28 Miles of sidewalks
- Snow Removal at Pace/Metra
- Municipal Parking Lots
Why Reduce Chlorides?

- Environmental Stewardship
- Compliance Requirements (NPDES, MS4)
- Reduce Operational Costs
- Increase Public Awareness
Chloride Reduction - Overview

Chloride Reduction Efforts

- Use of More Liquids
- Pre-Wetting
- Anti-Icing
- Vehicle Technology
- Carbide Cutting Edges
- Wing Plows
Chloride Reduction - Overview

Chloride Reduction Efforts

- New Salt Storage Facility (2015 - $319,900)
- Increased Capacity
- Reduced Supply Chain Dependency

Old Salt Storage Facility – 1,850 Ton Capacity

- 1997 - $28/Ton
- 2007 - $40/Ton
- 2008 - $129/Ton
- >2010 - $55-$70/Ton

New Salt Storage Facility – 3,700 Ton Capacity
Chloride Reduction - Overview

- Industry Involvement
Chloride Reduction - Overview

Public Outreach

- PW Open House
  (May 18, 2019 10:00 – 1:00)
- Farmer’s Market
- Newsletter
- Social Media
- Village Website – vbg.org
Reduced Lane Mile Coverage Requirements
- 526 TPM to 394 TPM - 26% Reduction
- Ultimately will be reduced to 350 TPM - 34% Reduction

Reduced Material Application Costs
- $11.42 per lane mile to $7.83 per lane mile – 31%

Reduced Overall Program Costs
- $14.67 per inch, per lane mile to $13.12 per inch, per lane mile – 11% Reduction ($40,000 Annually)
2016 APWA Award

- Materials & Handling
- Equipment
- Training
- Efficiency
- Community Outreach
- Technical
- Environmental
Village of Buffalo Grove Public Works Department

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Thank You!