### Village of Buffalo Grove Public Works Department





### Illinois Lakes Management Association Annual Conference Chloride Reduction Strategies for Local Government March 15, 2019



### Presented by : Mike Reynolds, MPA, CPFP, CPWP-M Director of Public Works



# Presentation Overview

- Community Overview
- Public Works Overview
- Snow & Ice Control Plan Overview
- Chloride Reduction Strategy Overview
- APWA Award
- Questions





ILLAGE OF

Groue

- 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
- 118 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**



 First Accredited in 2004

VILLAGE OF

Grove

- 16<sup>th</sup> Accredited Agency, 3<sup>rd</sup> in Illinois
- Currently One of 6 Agencies in Illinois



- 59 Employees
   50 Full Time
   9 Double 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



### Snow & Ice Control - Overview

Village of Buffalo Grove

### **SNOW & ICE PLAN**

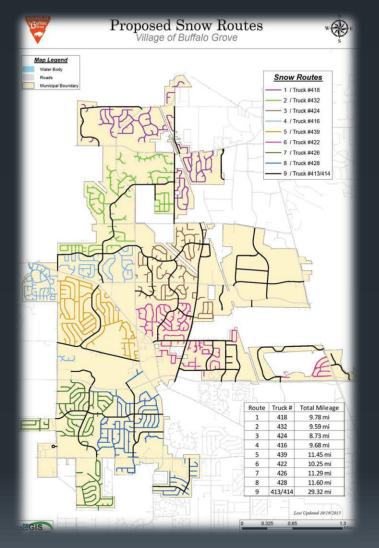


Public Works Department Operation Division 2016 – 2017

- 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
- 118 Miles of Streets
- 522 Lane Miles
- Sidewalk Snow Removal for 28 Miles of sidewalks
- Snow removal at Pace/Metra
- Municipal Parking Lots





### Snow & Ice Control - Overview Snow Command Center



- GPS Tracking
- Weather
  - Forecasting
- Live Radar
- Assignment Board







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# 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





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# Chloride Reduction - Overview Chloride Reduction Efforts



Old Salt Storage Facility – 1,850 Ton Capacity

- **1**997 \$28/Ton
- 2007 \$40/Ton
- 2008 \$129/Ton
- >2010 \$55-\$70/Ton

New Salt Storage Facility (2015 - \$319,900) 11

Increased Capacity

 Reduced Supply Chain Dependency







# Chloride Reduction - Overview Public Outreach

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### PW Open House

(May 18, 2019 10:00 - 1:00)

### Farmer's Market





OPEN HOUSE

Please join us in learning about the Public Works department's winter maintenance program. Get to see firsthand some of the various equipment used to clear the streets, sidewalks, and parking lots of the Village!

When: Saturday October 24, 2015 10:00 AM to 2:00 PM Where: Buffalo Grove Public Works 51 Raupp Boulevard Buffalo Grove, IL 60089



# Chloride Reduction - Overview Public Outreach



**Winter Snow Removal and Maintenance** 

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### What are the "stripes" I see running down my street b

starm event? This should expect to see trijper' or year road prior to existe this should expect to see trijper' or year road prior to existe pre-treatment to roads throughout the community. Anyting is a cost effective, practice first step towards a chleving divable roads during starm events as it helps melt failing now, and prevents the bood between the road surface and show from forming. These steps allow plows to cut all the say form to the paytement straffic as it hay move down the

### Why is snow pushed into my driveway by This is an unavoidable inconvenience. Dur

plevs will clear the radis moving from the 'crown' of the road or middle of the radi) travards the outside curb. Flewing activities will continue until all the snow has been removed. The first the radie outside curb has been removed. The first the radie outside curb has been removed. The first the radie outside curb has been removed. The first the radie outside outs

### street?

No, this activity is prohibited by Village ordinance and is subject to a fine. In addition, residents who deposit snow into the road from their driveway or sidewalk assume liability in the case of an accident or injury resulting from this act. Residents are encouraged to hisvel or snow-blow driveway snow 'downstream' from the direction of traffic (to the right facing the road from a garage).

When should I nove my car off the street? The village parking red/ition are ideal insufaded on posted the village parking red/ition are ideal. In addition to the reditionary offer the street of the street parking retrictions paints affect as soon as plenning operation, have stated. Redited are strong y rectanged in one which is off the redited are strong y rectanged in one which is off the offer multiple parking the street park and the street maintance equipment and show down the overall response of the writer handbarries program. Navies works the street park and the street parking the street park and the street park and the street parking the street park and the street park and the street parking the street park and the street park and

### What should J do if a plaw damages my malibar? Or my porkway? The Public Works Department repairs/rations damage to parkways in the spring, following the end of the winter searon. Damage to the parkway should be repaired to the Public Works Department as spon as it is identified, Public Works topair/relations and multiwest and multiwest

Note taken there dominantly by a finite instance inspect to policy of plow vehicle. The Obspacement does not complete repairs caused by scowe thrown firms the plow. When purchasing a mellow, sturtifices should be a consolectation is that it can resist the force, weight and weep of snow caused by plows. No repairs or englements will be completed on mallbees or mailows support, posts that have been improperly be obtained at the Pails Scowe (a merce 4) is sume Novalvet The costs of such a program would be very prohibitive Residents are expected to remove snow from their own driverways and sidewakls adjacent to their property so that pedestrians are not forced to walk in the street. Is the Public Works Department responsible for winte maintenance envery road in Bolfold Grove?

No. There are many roads throughout fillutio Grove m are maintained by agencies other than the hubic Wo Department. State roads, and Lake or Cook County roads, each maintained by their responsible agencies can be for list of the roads and the responsible agencies can be for here veglegarg/12/Sinten-Resource. Report any problems the appropriate agency. Report any problems that should I do if it is my garboge day, and playes are i

Garbage collection takes place throughout the comme a variety of different week days. During where main activities, residents are strongly encouraged to play garbage cans and recycle cans back away from the coinstide the apoint of the driveways soft backbond grows of the play desart function the cans over and create the for cleanup. The closer the cans are placed to the cogregation the sterior the they will be included over growing the sterior of the they will be included over the sterior of the sterior over the sterior of the sterior of the sterior of the sterior over the sterior over the sterior over growing the sterior over the sterior o

What is the contact belephone number if I have a question a concern? During normal business hours; Monday – Friday; 7:00 a – 3:30 p.m. the number is 847-659-2545. After hours, weekends and on hulidays call 847-459-2540 (this is the no DID YOU KNOW? one to fall in a 24-hour period in the United inchese. Sa feet of snow fell between April 14 at 2:30 p.m. 2:30 p.m. in 51Wer Lake, Colorent 2:30 p.m. in 51Wer Lake, Colorent Wer been reported in Key West. In 1943. and January 12, 1846 is 41 degree 13, 1943. and January 12, 1846 is 41 degree

> lational Snow & Ice Data Center, snow in is a naturally occurring solid, inorganica definite chemical composition.





Why is snow pushed into my driveway by

### WINTER MAINTENANCE

the plows?

The challenges of wieter maintenance are a balancing at thewrein the weather and read conditions, statiling levels, functionarily completing an ami-sing, pre-trastment of equipment, traffic, and the many other and statiling the statility of the memory activities completed by the link is a cost-effective, proactive first Public Works Department. Some check many discussion are completed simultaneously during a some event. The department is during torus and some transmission the disput the statility of the statistical statistis statistical statistical statistical statistical statistical sta

The following are frequently asked questions and answers during the winter maintenance senson.

### What is the contact telephone number for the Public Works Department if I have a

question or a concern? During normal business hours: Nonday -



Pridary, Tob a.m. - 120 p.m., BD7409.25K3, All the snow, when the single service service service services and priority B07459.2500 (this is the non-emergency Packe Department number). Unalce Papertment number). What are the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the "b01/part" is a comming down my extend in the intervent part intervent part intervent part in the intervent part intervent part

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### When should I move my car off the street?

The Village parking restrictions are clearly During periods of snow, plower will clear the maddition to the restrictions mainhorhood. In addition to the restrictions mainhorhood in addition to the restrictions or models of the road toward the volume or models of the road toward the volume or period notice and the road toward the continue of the road toward the road toward the continue of the road toward the road toward the continue of the road toward the road toward the continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward the road toward to continue of the road toward to continue of the road toward toward to continue of the road toward toward to continue of the road toward to continue of the road toward to continue of the road toward toward to continue of the road toward toward to continue of the road toward to the road toward toward to the road toward to the road toward to the road toward to the road toward toward toward to the road toward to the road toward to the road toward toward to the road toward to the road toward to the road toward to the road toward toward toward to the road toward toward toward toward to the road

### oid You Know? Snow is not actually white!

That's right. Snow is actually clear. Snowflakes are made out of ice crystals, so when light passes through, it bends and bounces off each individual crystal. The entire spectrum of light is reflected back to our eyes, and we see white snow. So there's actually no such thing as a White Christmas, but that sounds a loc catchier than Translacent Christmas.

Another interesting fact is that all snowflakes have exactly six sides.

### Newsletter

vbg.org



# **Chloride Reduction - Overview**

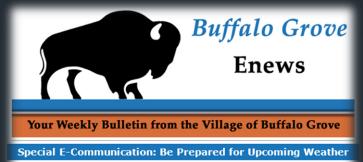


## Public Outreach

### Social Media







As many residents likely know, a wind chill advisory is in effect for northern Illinois and northwest Indiana now through Thursday morning due to dangerously cold temperatures/wind chills that will continue to drop over the next few days.

Exposed skin can cause frostbite and hypothermia within minutes. Residents should dress in layers, and use hats, gloves and scarves. Additionally, avoid being outside, or severely limit time outside, if at all possible. For up-to-date weather updates, please visit this **link**.

The Village of Buffalo Grove will be **open** during normal business hours on Wednesday, January 30, 2019. Please stay safe out there and view additional safety tips <u>here</u>.



### **Chloride Reduction - Overview**

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# Public OutreachVillage Web Site – vbg.org

**Click Here** 



Home · How Dol · Learn More About · Snow Plowing

### **Snow Plowing**

### Help! My mailbox was knocked down.

Submit an online request to have Public Works staff to inspect your downed mailbox. Select "Streets" then "Damaged Mailbox" in the next window.

he Public Works Department has established a 8 hour cycle time for each snow route. This heans that every street maintained by Buffalo Grove should be plowed from the center line to he curb every 8 hours during a snow event. The goal for completion of snow and ice control civities is within 8 hours of the end of the storm. Various emergencies and equipment issues ould cause a delay in these response goals, but they help set the departmental pace.

amaged Mailboxes: During snow removal efforts, mailboxes may unfortunately be damaged or even nocked down by snow plows - but there is a way to address this issue. If the damage was caused by Buffalo rove Public Works, the Department will repair or replace mailboxes and support posts that have been amaged. Until the time that these repairs or replacements can be completed, Public Works will provide a imporary post and mailbox so the resident can receive mail.

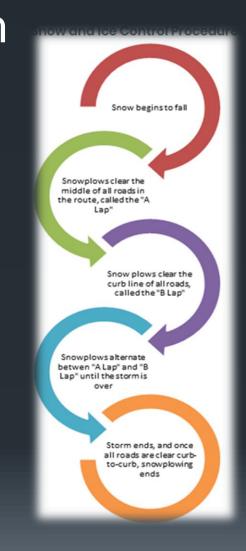
### Who's Listening?



Bryan Beitzel MAINTENANCE SUPERINTENDENT

- S1 Raupp Blvd
   Buffalo Grove, IL 60089
- Ph: 847-459-2545
- Hours: 7:00 am 3:30 pm Monday -Friday

Email



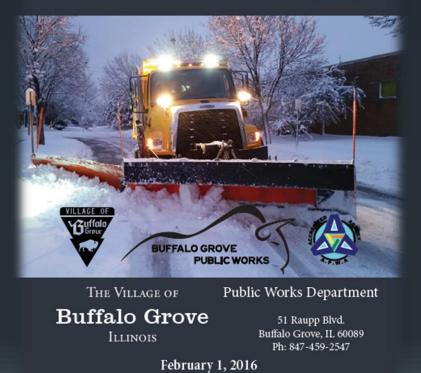


### **APWA Award - Overview**

American Public Works Association

### Excellence in Snow and Ice Control Award

Nomination Form & Supporting Data



- Materials & Handling
- Equipment
- Training
- Efficiency
- Community Outreach
- Technical
- Environmental



### **APWA Award - Overview**



Recipient of the 2016 APWA Excellence in Snow & Ice Control Award



### Village of Buffalo Grove Public Works Department



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# Thank You!

