

Anti-icing: The Experience in Hanover Park



October 16, 2008

Village Statistics

- Located in Cook and DuPage Counties.
- 38,500 residents
- 100 center lane miles of roadways.
- 193 cul-de-sacs
- 2 fire stations
- 3 commuter parking lots
- 1 sewage treatment plant with 3 lift stations
- 4 well houses
- 3 miles of bike path / sidewalks

P.W. Department Statistics

- Average 20 call outs per season.
- Average 6 plowings per season.
- 2000 tons of salt per year (purchase).
- 25,000 gal. of salt brine per year.
- 10,000 gal. of Geo Melt.
- 44 full time employees.



Storage Capacities

- Salt Dome 3,500 Tons
- Salt Brine 18,000 Gallons
- Geo Melt 6,000 Gallons



CAUTION
SALT
BRINE

CAUTION
CALCIUM
CHLORIDE

Equipment

- 2 anti icing spray trucks.
- 2 tandem axle trucks w/ on board liquid.
- 8 single axle trucks w/ on board liquid.
- 18 pick up trucks w/ plows.
- 2 front end loaders, 1 w/ plow.
- 1 skid steer w/ plow,blower,and broom.





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DIESEL ONLY

HYDRAULIC OIL ONLY

D.E.O.
1907



Anti Icing Operations

- Started in 2002 with 1- 500 gal. system.
- Added second system in 2005.
- Apply Approx. 25,000 gal. per season.
- Apply 2 times per week Nov.- March.
- Apply to all stop intersections, hills, curves, and school zones.



ANTI-ICING
KEEP BACK



Salting Operations Less Than 1 Inch

- 9 salt trucks all w/ liquid on board.
- Liquid is applied to all salt spread.
- Continual salt on all mains, hills, curves, and school zones.
- Spot salt all secondary streets, and cul-de sacs.
- Fire stations entrances and drives.
- Completed in 3 hours

Liquid Application

- Pre wet all salt w/ salt brine or Geo Melt.
- 10 gal. Per ton of salt.
- Applied at spinner.
- Salt works faster and longer, even at lower temperatures.

Plowing Operation Less Than 2 Inches

- Same 9 trucks.
- All streets plowed curb to curb.
- Salting operation on final passes.
- Cul-de-sacs salted no plowing.

Plowing Operation

2-6 Inches

- Same 9 trucks.
- Plow curb to curb.
- Salting operation on final passes.
- 193 cul-de-sacs plowed by private contractor.
- Salt cul-de-sacs after plowing.
- Completed 6 hours after snowfall has ended.

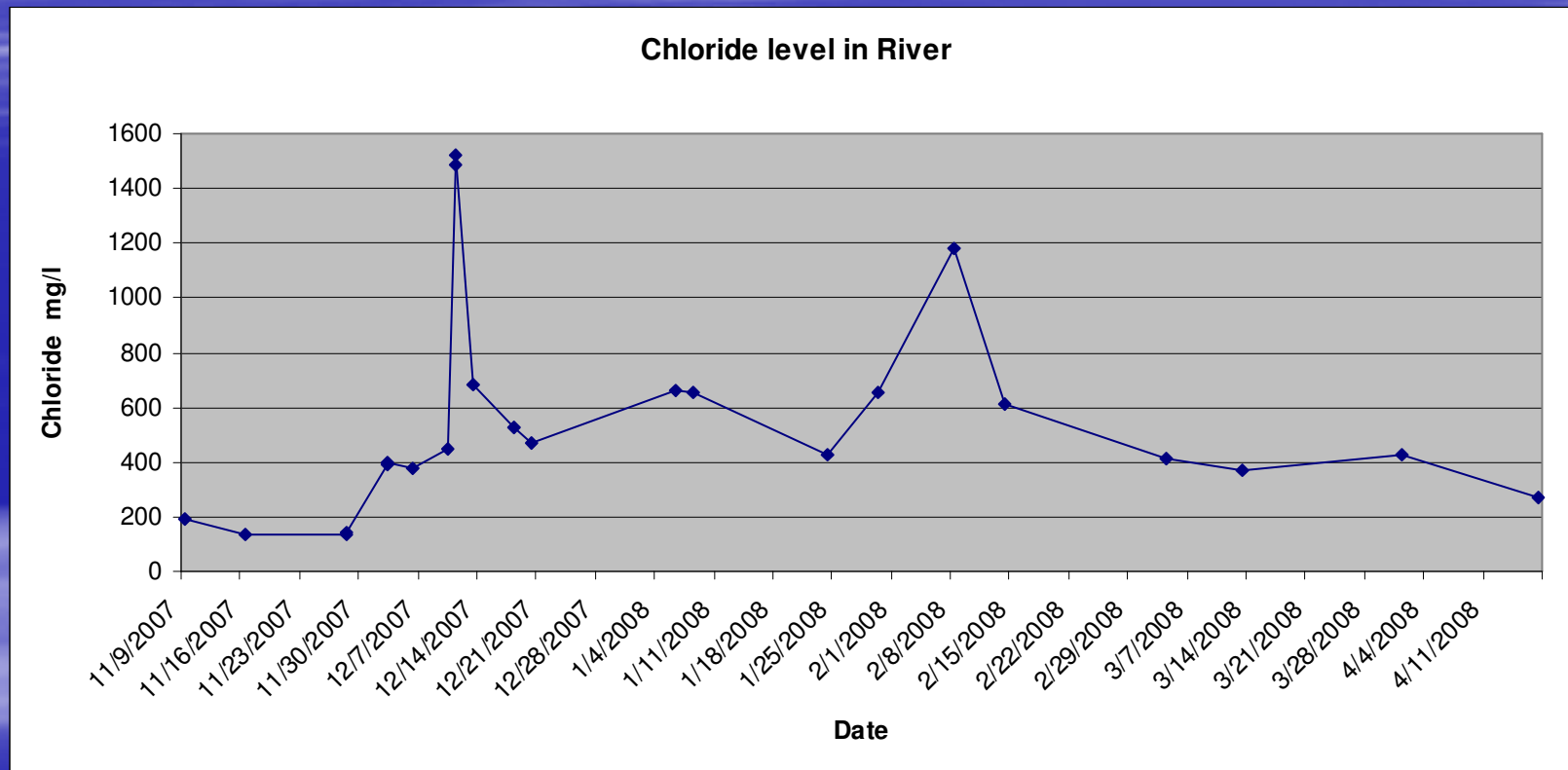
Plowing Operation Over 6 Inches

- Same 9 trucks.
- Continual plowing, keeping roadways open.
- Reduce salt usage, only where critical.
- Cul-de-sacs plowed 2 times.
- Salting operation on clean up passes.
- Clear school zone sidewalks when over 8 inches.
- Plowing operation completed 8 hours after snowfall ends.
- School zone sidewalks cleared within 24 hours.

Why Important?

- Program saves money by using less material.
- Reduced personnel costs as some storms do not require a response.
- Anti-icing starts working prior to crews beginning operations.
- Chloride reduction in river.

Chloride Levels in West Branch of the DuPage River (At the Arlington Drive Bridge)



Questions ???

