2009/ 2010 SNOW PROGRAM

MID-SEASON UPDATE

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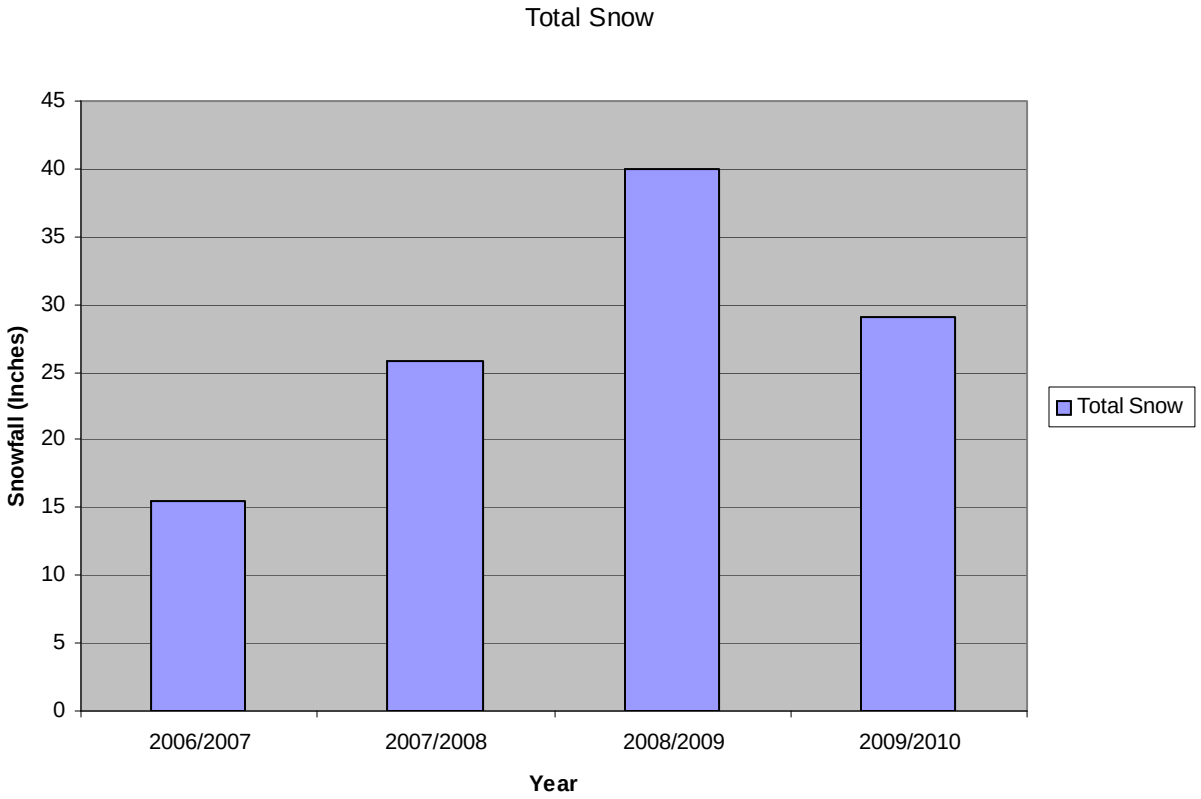
Topics of Discussion

- Snow Fall Amounts
- Salt & Sand Usage
- Costs
  - Labor & Equipment
  - Materials
  - Contractual
  - Cost per Inch of Snow
- Brine Production
- Weather Forecasting
- Summary

ALL DATA SHOWN REFLECTS THE SAME PERIOD DURING EACH YEAR. (DEC. 1 – JAN. 15)

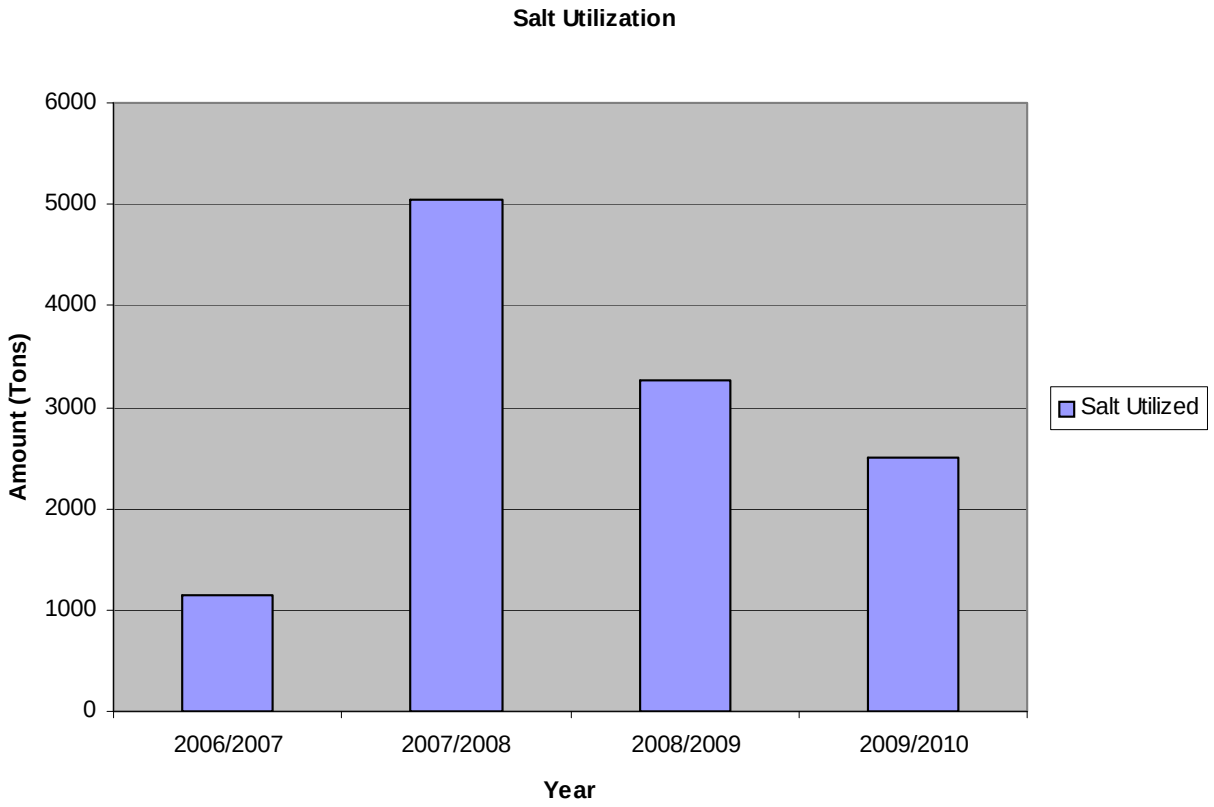
Snow Fall Amounts

- **29.01”** in 2009/2010 Compared to 39.92” in 2008/2009
- 18.78” is Average for Past 10 Years



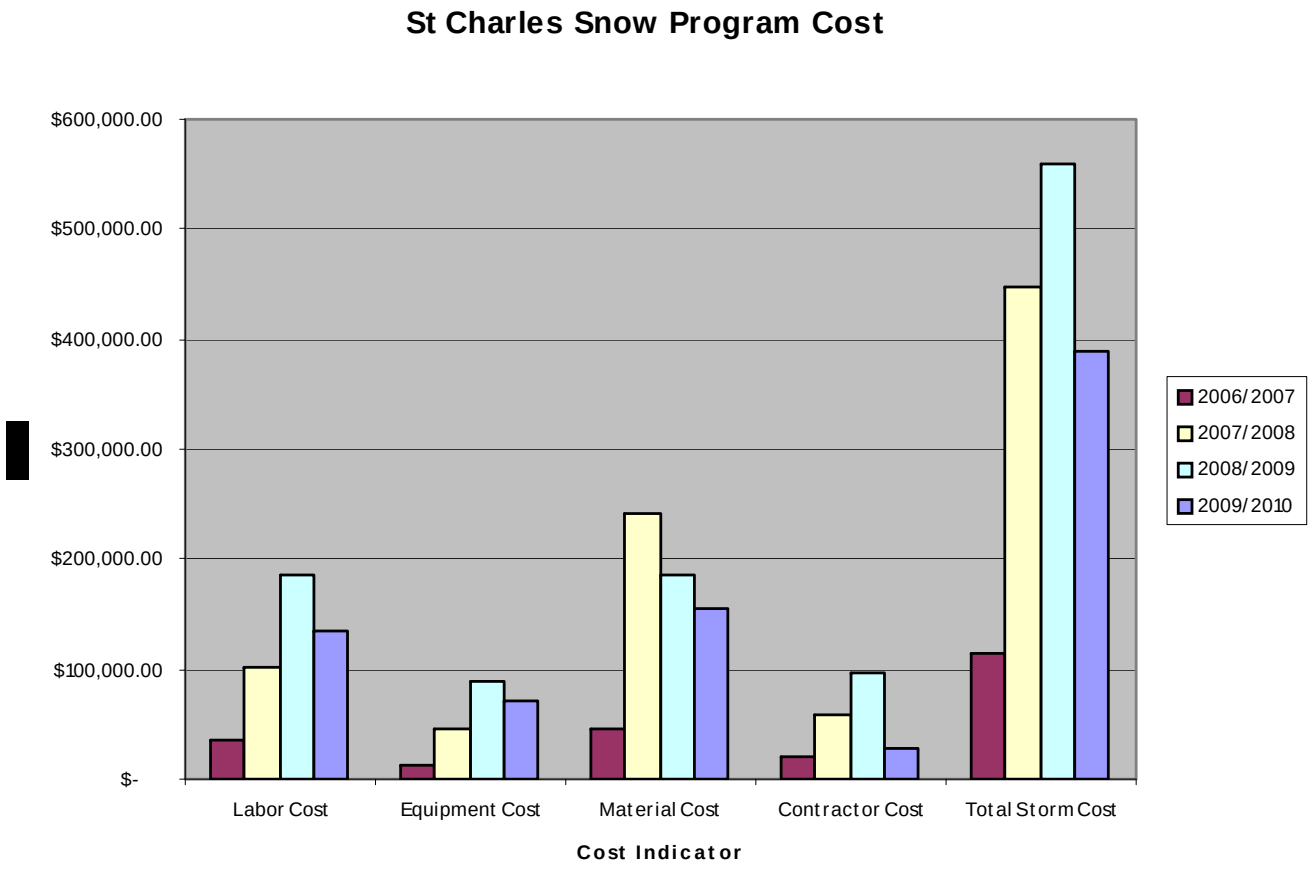
Salt & Sand Usage

- **3,344 Tons** of Material in 09/10 Compared to 4,314 Tons in 08/09
- 2,507 Tons of Salt & 837 Tons of Sand (25% Sand Mix)



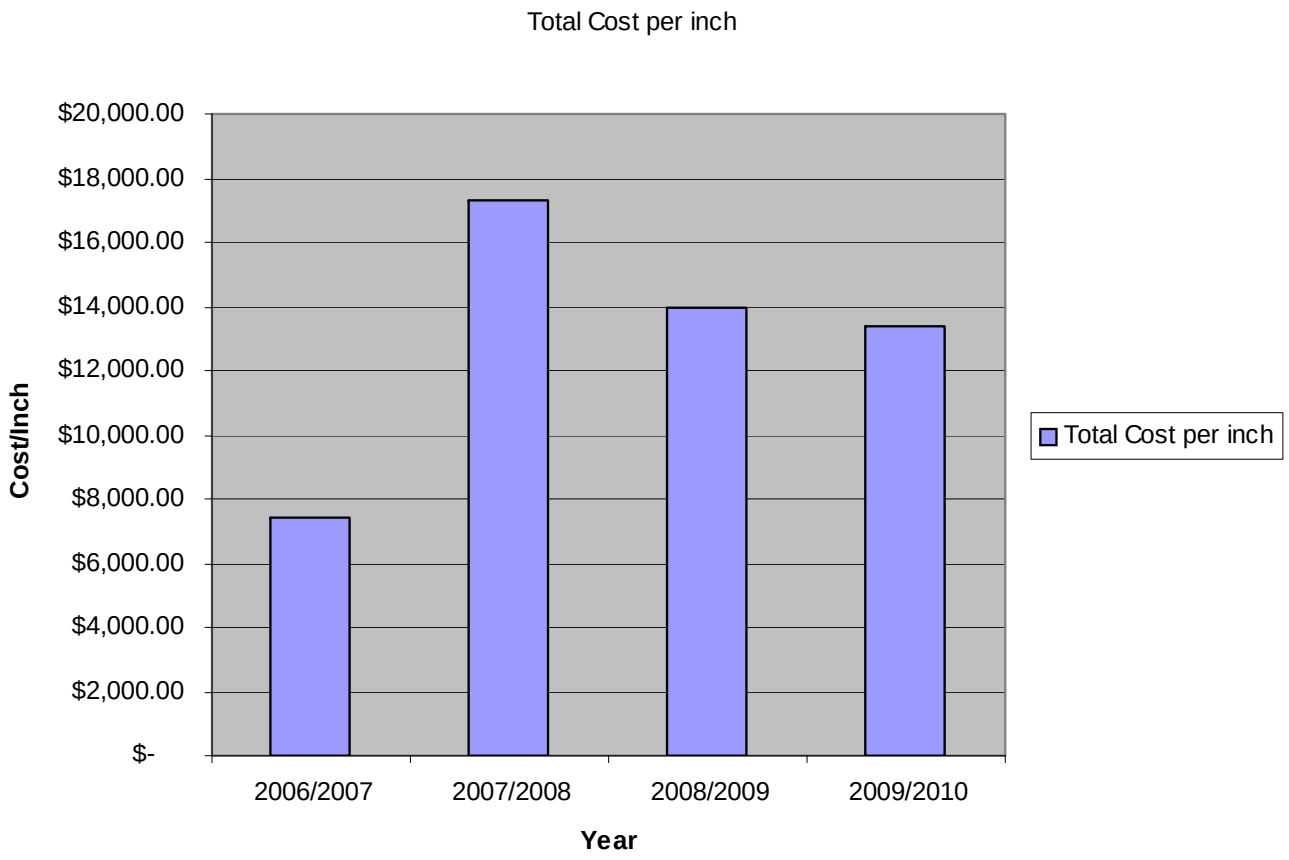
Labor, Equipment, Material & Contractual Costs

- Total 2009/2010 Storm Costs are **Down 30%** from 2008/2009



Cost per Inch of Snow

- **$13,384 per Inch** in 09/10 Compared to $13,991 per Inch in 2008/2009



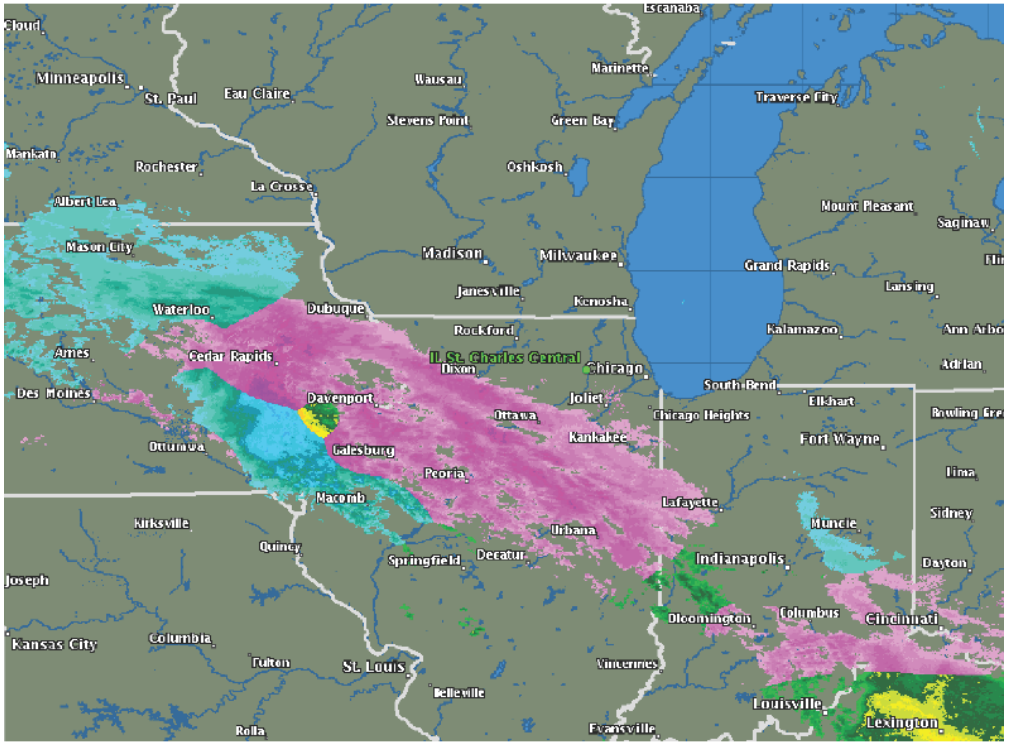
Brine Production

- First Year Producing Brine
- 8,000 Gallons of Brine Used (to date)
- $4,560 Total Savings to COSC (to date)

Weather Forecasting

- First Year for Computerized Weather Forecasting System – “Telvent DTN”
- Current Weather/ Radar Information – React to Events More Efficiently
- Provides Detailed Treatment Recommendations Specific to COSC
- Helps Reduce Labor & Material Costs

“Telvent DTN” Weather System



Weather Treatment Recommendation

Frost (20°F to 28°F, remaining in range, and equal to or below dew point)

Cycle Time: 3 hours

IL St. Charles Central - Tue 01/19/10 06PM

Traffic Condition	Initial Operations			Subsequent Operations		
	Maintenance Action	Dry Chemical Spread Rate kg/lane-km (lb/lane-mi)		Maintenance Action	Dry Chemical Spread Rate kg/lane-km (lb/lane-mi)	
		Liquid	Solid or prewetted solid		Liquid	Solid or prewetted solid
Any level	Apply liquid or prewetted solid chemical	18-36(65-130)	18-36(65-130)	Reapply liquid or prewetted solid chemical when needed	18-36(65-130)	18-36(65-130)

Comments

1. Monitor pavement closely; if thin ice forms, reapply chemical at higher indicated rate
2. Applications will need to be more frequent at higher levels of condensation; if traffic volumes are not enough to disperse condensation, it may be necessary to increase frequency
3. It is not advisable to apply a liquid chemical at the indicated spread rate when the pavement temperature drops below 23°F

Hourly Forecast for IL St. Charles Central

Hour	Tue 05PM	Tue 06PM	Tue 07PM	Tue 08PM	Tue 09PM	Tue 10PM	Tue 11PM	Wed 12AM	Wed 01AM	Wed 02AM
Weather Condition										
Weather	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Temperature (°F)	27	25	23	23	22	23	23	23	24	25
Feels Like (°F)	27	20	18	18	14	17	17	17	17	18
Wind Direction	LV	NNE	NNE	N	NNE	NE	ENE	NE	NE	NE
Wind Speed/Gusts (mph)	LV	4	4	4	6	5	5	5	6	6
Dew Point (°F)	22	20	19	19	19	19	18	18	20	19
Humidity (%)	81	81	85	85	88	85	81	81	85	78
Precipitation Chance (%)	-	-	-	-	-	-	-	-	-	-
Precipitation Type	-	-	-	-	-	-	-	-	-	-
Precip Amount (Rain:in.,Snow:in.)		None			None			None		
24 Hr Snow/Ice Accum (in.)(02PM-02PM)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Blowing Snow Potential	-	-	-	-	-	-	-	-	-	-
Bridge Temp (°F)	37	32	28	25	22	20	19	17	16	15
Road Temp (°F)	40	35	31	29	27	26	25	24	24	23
Bridge Frost Likely?	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Road Frost Likely?	No	No	No	No	No	No	No	No	No	No
Treatment Recommendation										

Summary

- Above Average Snow Fall While Maintaining Efficient Snow Program
- Effectively Reduced Salt & Sand Usage
- Key Changes This Year
  - Refined Management Goals
  - Controlled Material Management
  - Defined Contractual Services
  - Brine Production System
  - Weather Forecasting System
- Salt vs. Sand Ratio & Brine “Pre-Wetting”
- This Year’s Budget – On Target!