



City of Rochester Hills Dust Control Program



Balancing Service Levels with Available
Funding

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5/18/2007



Operational Approach to Controlling Dust.

- Dust Control Program has changed over the past few years due to financial constraints.
- In 2003 the dust control program was revised to match the frequency and time table of the dust control program of the Road Commission for Oakland County

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Historical Chloride Applications

- 2002 - \$80,409 @ .36 per gal=223,358
- 2003 - \$68,448 @ .38 per gal=180,126
- 2004 - \$60,895 @ .40 per gal=152,375
- 2005 - \$57,742 @ .43 per gal=134,283
- 2006 - \$58,189 @ .46 per gal=126,782
- 2007 Budget - \$60,000 @ .48 per gal
=125,000

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Today's Situation

- Multiple years of applications created a residual of chloride that lasted through last summer under minimal application rates. (1000 gallons per mile)
- Chloride residuals are now depleted, creating dust migration under traffic and windy weather.
- The Spring 07 weather has produced unusual periods of dry windy weather further aggravating the dust conditions.

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Chloride Application Rates

- Prior to 2003 all roads received 6 applications at 2000 gallons per mile with a concentration of 35% chloride. (RCOC uses 23% chloride).
- After 2003 4 applications at 1000 gallons per mile at the same 35% concentration.
- It was generally assumed that a solution to the funding crisis would be found and service levels would be improved.

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Gravel Road Maintenance Cost

- Records of Local road maintenance costs indicate that in 2006 Rochester Hills paid 4.3 times more to maintain a mile of gravel road than a paved road. This ratio has been higher in previous years.
- Roads are graded on average 8 times per year.
- Ditching, grading, chloride and gravel.

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Recommendation

- Utilize monies that were budgeted for the sidewalk repair program to increase the amount of chloride applied to gravel roads.
- Classify roads into two categories, through streets and dead ends.
- Apply 4 applications at 1500 gal per mile to through streets and 3 applications of 1500 gal per mile to dead ends.