



Using Technology to Manage Winter Operations and Developments in Best Winter Maintenance Practices

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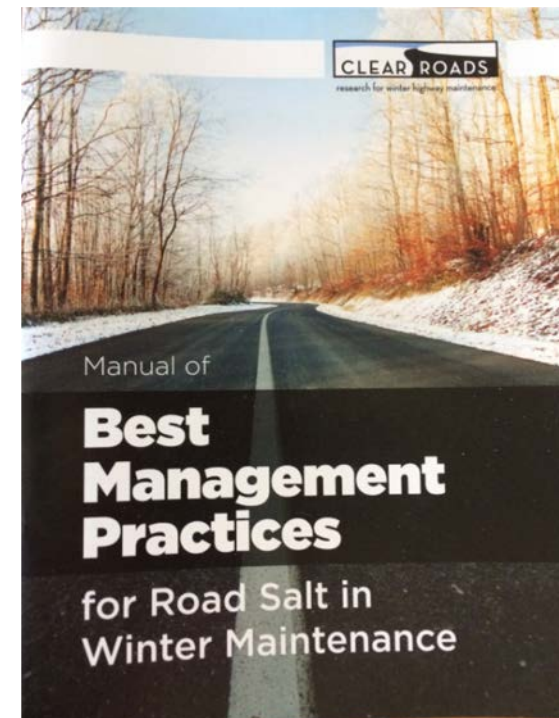
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The technologies and practices are not all necessarily new. Some have been in place for years.

- Technologies and programs are continually being improved.
- Many studies and papers document these but where do you find them.
- Conferences and networking help. You often don't need to reinvent the wheel.



Why implement these technologies and practices?

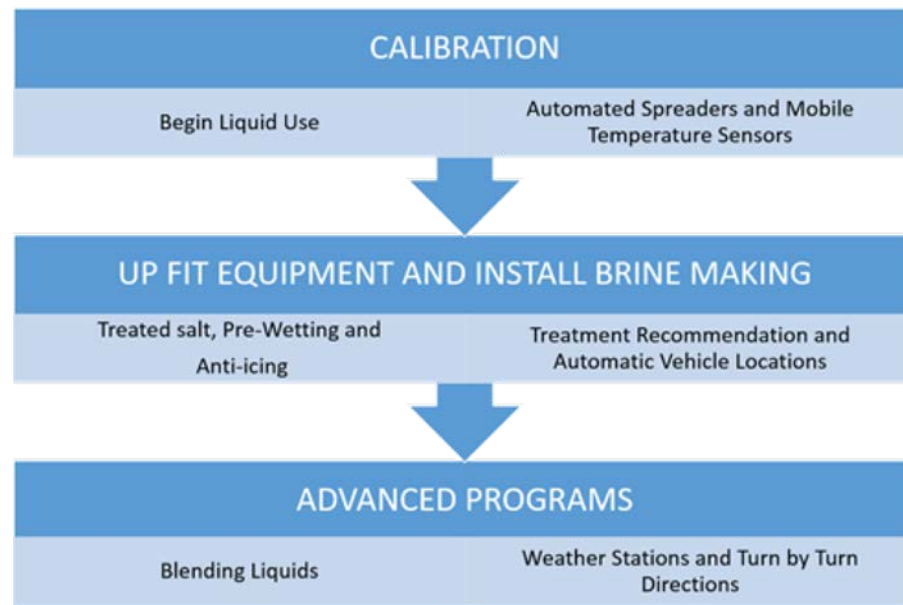
- Improved performance
- Return on investment and financial savings
- Environmental benefits
- Innovated attitude



SO WHY WOULDN'T EVERY AGENCY IMPEMENT THESE?

Implementing – were do we begin?

- Start with the low hanging fruit and it may have some of the biggest returns
- Consider the difference between technologies and programs
- You must have champions in both areas.



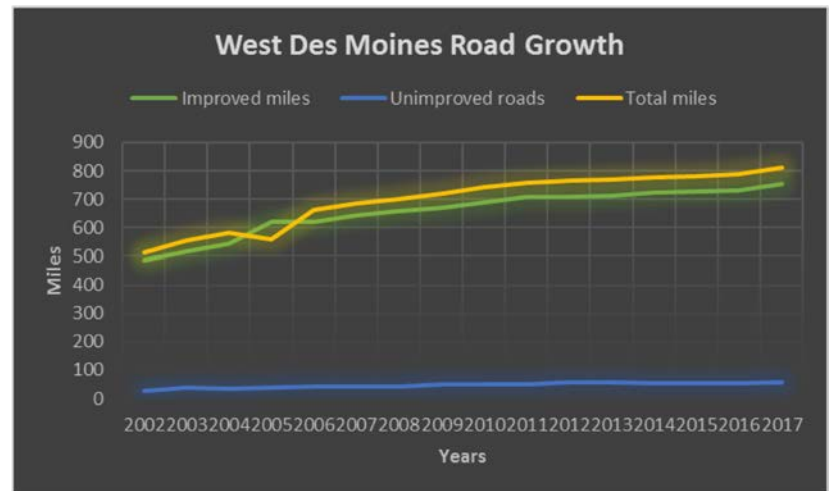
I can't afford it

- The best ideas come from those who do the work
- Let someone else pay for it> it can be done.
- Success must be documented so it can be presented. This opens the door to expansion



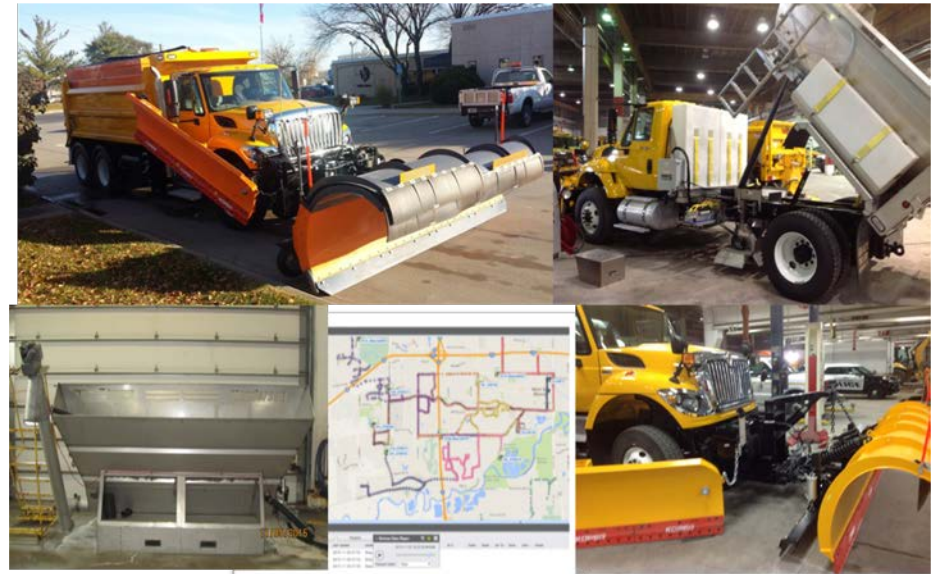
Who is a model – the City of West Des Moines

- One of the fastest growing cities in the Nation
- Expanding roadway system
- Growing customer expectations
- Innovation played a key role in their success



Embraced technology and programs

- Willing to try anything new
- Delegated it to the employees
- New products and technologies were evaluated and implemented
- Not everything worked
- Budget woes and budget wins



TRUCKS – LIQUIDS – AVL – MDSS - RWIS

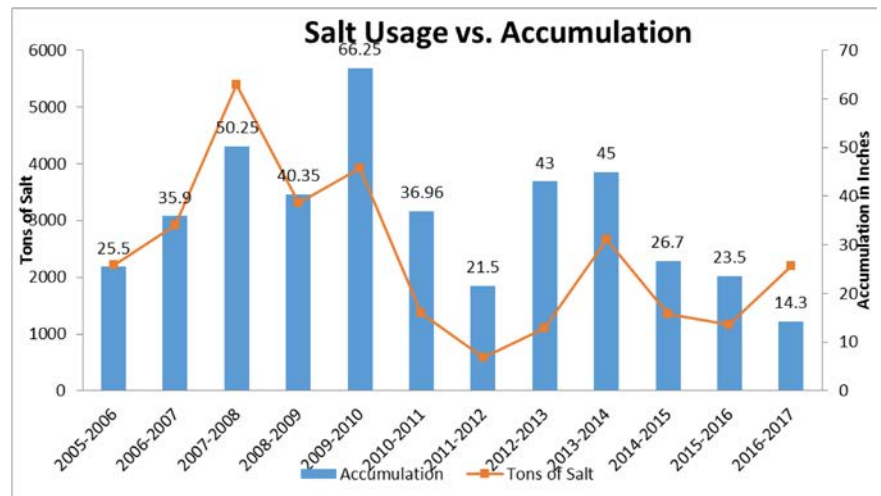
One of the latest additions

- Wanted fixed weather stations
- Too expensive and difficult to obtain through a capital program
- Worked with the vendor to begin a “lease” program
- Enhanced the operations and the weather service
- Three systems in place today



Results

- By adding these programs and technologies and overall decline in material use has happened
- Despite a growing road way system the overall performance of the agency has risen.
- Elected officials, customers and the industry recognize West Des Moines as a model agency



Conclusions

- Technologies and best practices are vital to agencies of all sizes
- When technologies and weather data are combined with pro-active operations, improved levels of service can be achieved while utilizing less de-icing materials.
- This truly makes agencies more sustainable and is a more environmentally friendly approach. In the long term it is fiscally beneficial as well.

