



CLEAN Community Challenge Success Story:

Salt Reduction Program Hobart, Indiana



Background

The CLEAN stakeholder committee selected this salt reduction initiative as one of their five CLEAN goals. Hobart, located in northwestern Indiana, receives an average of 50 inches of snow each year, making its removal a costly part of the city's operations. Excess salt applied to roads during snow removal causes soil and water contamination.

Goal

Reduce salt usage by 10% on city streets and parking lots by December 2012.

Action Plan and Tasks Completed

- Establish baseline for salt usage per precipitation event for previous five year period
- Calibrate trucks used in snow removal
- Track salt usage per precipitation event, salt usage per mile, and hours of truck operation
- Investigate additives and alternatives to current salt mixture
- Train employees on snow removal procedures

Accomplishments

Using a simple method of calibrating salt spreading mechanisms on snow removal trucks, the city of Hobart has been very successful in reducing the amount of salt used on their roadways and parking lots. Hobart officials attended the Indiana LTAP (Local Technical Assistance Program) Transportation Expo and Snow Plow Roadeo in 2011 and learned through a demonstration how to calibrate their equipment. By calculating the shaft revolutions per minute, weighing the salt that comes out per revolution, and entering the numbers into a math equation, the resulting discharge rate per lane mile can be compared with best practice rates. The recommended amount of salt was 300-400 pounds per lane mile. Hobart had trucks that were applying three to four times that amount. Through the calibration process, Hobart was also able to identify that some of their equipment was not working as intended. This process gave them the opportunity to repair their equipment, ensuring that they would operate efficiently and not spread excess salt.

During the winter season of 2012-2013, Hobart was able to reduce the amount of salt used by 46 tons per snow event, totaling 828 tons for the season. Hobart employees have been trained on the new procedures. In the future, equipment will be calibrated at the beginning and halfway through each season, taking about 15 minutes on each piece of equipment. Hobart is now working to help local contractors understand the cost savings and environmental benefits of calibrating equipment.

Savings

Savings for this project amounted to \$2,392 per snow event, totaling \$43,056 for the 2012-2013 season.

Recommendations from the city of Hobart

Calibration is a simple process that people shouldn't be afraid of. If you are doing it right, it doesn't take much time, and the benefits are outstanding.

For more information about Indiana LTAP and how to calibrate salt spreading equipment, please visit <http://rebar.ecn.purdue.edu/ltap1/Home/>.

About the CLEAN Program

CLEAN stands for Comprehensive Local Environmental Action Network. The CLEAN Community Challenge is a voluntary recognition program for cities, towns, and counties that go above and beyond environmental regulatory compliance and make significant commitments to environmental management. For more information about CLEAN, please visit <http://www.in.gov/idem/prevention/2361.htm>.