

Going Green in the Snow & Ice Management Industry

By Ellen Kobach and Brian Birch, SIMA

Managing snow and ice during harsh winter conditions is challenging work. From unpredictable weather patterns to dangerous conditions, snow and ice professionals face many difficulties while maintaining safety for the public during the worst winter weather. In addition to these existing challenges, a whole new set of issues is arising regarding environmental stewardship and conservation. The increased pressure and paradigm shift that is taking place in the US (and is occurring at a faster pace in many countries across the globe) related to environmental concerns will continue to effect the industry as these concerns reach the public and government levels.

The “green movement” is a hot topic in today’s society, and the call for conservation of resources and reducing practices harmful to the environment is both widespread and enduring. It is more than just a trend! The snow and ice management industry is no stranger to these demands, as the use of heavy equipment and deicing/anti-icing materials is paramount to keeping streets and parking lots clear of snow and ice. In this industry, it is a balancing act of managing the impact snow and ice professionals have on the environment with the need for pedestrian and motorist safety during winter. Fortunately, there are a number of best practices and new technologies that can help reduce harm to the environment while still providing top notch safety to the public during winter weather.

What can you do to make your operation Green?

There are many steps snow and ice professionals can take to help lessen harmful impacts on the environment. The following are ideas specifically for the snow and ice industry suggested by the International Council for Local Environmental Initiatives (ICLEI) and the American Association of State Highway and Transportation Officials (AASHTO):

- **Evaluate your equipment:** Conducting a fleet inventory can help to set goals for reducing energy use and air pollutants. Consider the number of vehicles and amount of fuel they use. Make sure the most efficient vehicle is being used for each job, and eliminate any unnecessary equipment. When purchasing new vehicles, consider fuel efficiency and/or alternatively fueled vehicles.
- **Perform regular vehicle maintenance:** A simple way to reduce emissions, regular maintenance is important to ensure that each piece of equipment is running as efficiently as possible. This includes changing oil and filters regularly, consistently checking tire pressure, and making sure engines are operating in correct temperatures.
- **Consider alternative fuels:** As governmental standards become stricter regarding air emissions, fuel technology continues to improve. There are several options to replace or supplement current fuel usage, including diesel, biodiesel, and ultra-low sulfur fuel.
- **Train drivers to operate vehicles efficiently and correctly:** Ensure that drivers know the proper way operate vehicles. Route planning using GPS or other software can help to maximize efficiency when operating vehicles. Instituting a strict no-idling plan will also help to decrease fuel use and unnecessary emissions.

- **Create a plan for reducing salt use:** Calibrating spreaders can help monitor usage and ensure salt isn't being wasted, and pre-wetting salt can also decrease the amount needed. Training on correct salt usage and application rates is also an important step towards using the minimum amounts of salt to achieve maximum results.
- **Consider alternatives to salt:** While not necessarily meant to replace salt, there are many alternatives that can supplement the use of road salt. Certain alternative deicers can have less of an impact on the environment. Review the available materials out there in order to make an informed decision about using alternative deicers. Anti-icing using liquid materials is also a good option to consider.
- **Winter operations facility management:** Salt, sand, and other chemicals should be stored correctly to minimize contamination, and covered storage for dry chemicals is recommended. General tips for keeping winter facilities environmentally friendly include litter control, monitoring water usage, and consistent and accurate recordkeeping for materials and site management.

Considering these steps towards improving snow and ice management operations can have a beneficial impact on the environment, whether it be reducing emissions or lessening the spread of chemicals. Many small things, such as optimizing routes, eliminating idling, and regulating salt usage are easy ways to reduce impact on the environment.

Making Green with Green

As the industry moves forward and snow and ice contractors feel increased pressure from clients and the general public related to the environment, it will be challenging to change existing business processes to become more respectful of our surroundings. However, a second paradigm shift may help facilitate this transition; viewing 'Green' in snow and ice as a way to add, not detract, from the bottom line.

Marketing

As the green movement progresses, smart professionals will start to use it as a business advantage. Being a more environmentally respectful and conscious contractor can be a huge advantage, and one more selling point with a new prospect or existing customer. There are already contractors in the US and Canada who work with clients who have special needs related to environmental impact.

Financials

Environmental stewardship in snow and ice means using the right amount of product to get the job done. Using less product can translate directly to cost savings, and make a company more efficient. It also can lead to less risk and dependence on the rollercoaster of supply and demand that every snow and ice contractor has had to navigate over the past few years. As described earlier, managing and reducing fuel usage can have a dramatic impact on the carbon footprint of the snow and ice organization, as well as the bottom line.

Community

Many businesses find great value in giving back to the communities that support them; why should snow and ice contractors be any different? There is no better way to give back to the community than doing all that is in your power to respect the environment in which it stands. Being a proactive member of the community and getting involved locally can not only provide for new business opportunities, but will increase rapport and respect with members of the community. Also, knowledgeable contractors can help local and regional green initiatives understand the need for snow and ice removal chemicals and applications, providing expert advice on the balance of safety and environment.

Like any other industry, snow and ice operations must also do their part to lessen negative impacts on the environment. By adopting some of these practices, snow and ice professionals can not only save money, but can also act as a leader to the industry regarding environmental initiatives.