

SNOW START UP

ISSUE #4: FOCUS ON OPERATIONS

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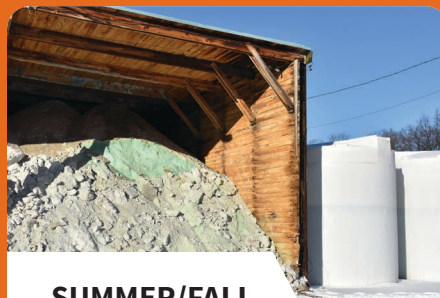
SNOW REQUIRES YEAR-ROUND PLANNING

As we've progressed through the season, we've shared details on estimating, managing your legal risk, and much more. Now the rubber (or steel!) meets the parking lot. When it comes to operations planning, it can be overwhelming for a newer snow contractor. Good, precise planning is key — and if you're going to be in the snow and ice management industry for the long haul, it's a never-ending cycle that will require year-round focus and dedication. Here are just a few of the tasks you should have on your radar:



SPRING

As winter operations wind down, it's the best time to conduct several tasks while minds are fresh. Conversations should be conducted with your clients and the renewal process should start now. Knowing how many customers are returning will show you how much new work you'll need to secure to meet your financial goals. Meet with your team to assess the season — what went well, what didn't, and what's the plan to improve? Finally, take care of your equipment with a postseason maintenance program to ensure it's ready for the following season.



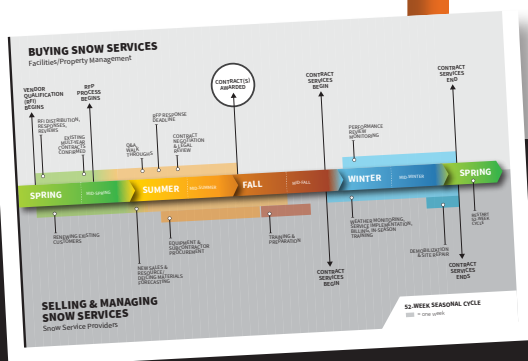
SUMMER/FALL

A lot has to happen in the run-up to winter operations. New sales and contract/insurance reviews should be underway. The time is now to begin securing equipment and deicing materials, subcontractors and seasonal team members. It's not easy to achieve (depending on your clientele), but be disciplined and strive to have all work sold by the end of September. Schedule your preseason equipment preparation; walk properties and begin site engineering to the contracted level of service; and schedule your winter kickoff training.



WINTER

Depending on your market, it might be awhile before the first snow — don't let your guard down. Keep training your team and make sure your service implementation, documentation and billing procedures are rock solid. Once winter operations begin, remember that no news isn't necessarily good news. Conduct post-event assessments to get feedback from team members on any potential issues; communicate with clients on their satisfaction; ensure equipment is in working order and make any necessary repairs; and inspect sites to identify impending issues (e.g., threats of thaw/refreeze) or damages that need to be addressed. Once the season ends, get ready to debrief, assess and begin planning for next winter!



SIMA has several resources that can help, from 52-week timelines to guide you; best practices checklists to benchmark your company against; site engineering documents; and a wealth of free training resources available for download. Visit go.sima.org/startup for free downloads and explore my.sima.org to see what other resources are

OUTFITTING YOUR OPERATIONS

➔ Equipment and materials are central to your operations planning — and they're also among your biggest expenses. As a smaller company, controlling those costs will be key. When it comes to equipment purchasing, what works for the large companies may not make sense for you. Let's take a look at some key items to consider for small- and medium-sized companies.



KNOW YOUR LIMITS. Workload is a major consideration for all purchases and helps determine profitability when and if winter weather occurs.

Most smaller companies have a broad mix of contract types ranging from smaller locations like banks and fast-food locations to medium-sized HOAs to large, open parking lots. You have to determine what work you can handle with the equipment you have and what you can afford to purchase or rent, all the while knowing it could potentially sit idle for most of the season if it's a light winter. Know your capabilities and ensure that your equipment can handle your workload — especially if the mother of all storms comes your way.



KNOW WHAT YOU HAVE.

Create a spreadsheet of your equipment and its current condition. This will serve as

your pre-winter checklist to help you determine how your equipment budget should be spent. This spreadsheet should be matched to your workload and contract demands to make it easier to manage where each piece of equipment should be located, what you can actually achieve when your team is called into action and identify gaps that need to be filled.



KNOW YOUR OPTIONS.

If your analysis reveals that you need additional equipment, consider if it would be more cost-effective to rent or lease; buy new or well-maintained used equipment; or hire a subcontractor that needs to put that equipment to use.



DEICING MATERIALS PURCHASING BEST PRACTICES

Best Practices
Guidelines for
Sustainable Salt Use

Download SIMA's Sustainable Salt Use Guide at my.sima.org.

SIMA
SALT & DEICING ASSOCIATION



BEST PRACTICES PLOW: PRE-TRIP INSPECTION CHECKLIST

USE THIS CHECKLIST AS A VEHICLE INSPECTION GUIDE

SPARE PARTS INVENTORY CHECKPOINTS:

Parts should be located in an accessible location.

- Oil/grease
- Filter (oil/grease)
- Diagnostics grease
- Chain
- Bolts
- U-Bolts for chain
- Cutting Edge bolts
- Flares
- Spine Controller (hand held or foot pedal)
- Hydraulic fluid
- Hydraulic hoses
- Spacers of electric hydraulic system or extra ball for closed hydraulic system
- Top springs

PRE-TRIP VEHICLE CHECKPOINTS:

Examine each of these checkpoints for proper condition and operation.

- LIGHTS**
 - Check to ensure all lights work:
 - Headlights
 - High beam
 - Low beam
 - Tail lights
 - Backup lights (with reverse assist)
 - Brake lights
 - 4 wheel indicators
 - Turn signals
- GAUGES**
 - Check to ensure all gauges are operational
- BATTERY**
 - Check battery
 - Corrosion
 - Secure connection
 - Battery level (if checkable)

FLUIDS

- Check to ensure all fluids are at appropriate levels
- Fuel
- Engine oil
- Brake fluid
- Transmission fluid
- Hydraulic fluid (do not over-charge up after each shift)
- Windshield washer fluid
- Power Steering fluid
- Power fluids (check hydraulics)

RAIDERS & WEEZ

- Check radiator and hoses
- Leaks in hoses
- Hose clamps

BELTS

- Check alternator belt/tensioner battery cable belts
- Clutch
- Proper tension

4X4 ENGAGEMENT

Check 4x4 engagement switch or manual engagement lever to ensure it is in proper working condition.

ELECTRIC DISARMAMENT

Check 4x4 disengagement switch or manual disengagement lever to ensure it is in proper working condition.

TIRE PRESSURE

Check the pressure with gauge

- Tire pressure (front/rear)
- Tread
- Chain
- Salt
- Mounting hardware (if applicable (aligner and hitch mount))

WINDSHIELD WIPERS

Check to ensure they are operating properly and in good condition

DEFROSTER / HEATER

Check to ensure it is operating properly

LICENSE PLATE

- Check license plate
- Hydraulic cap or cover

HORN

Check to ensure it is operating properly

STRAIGHT BLADE / PLOW ONLY

Weight distribution of trim attachment, with attention to base of truck.

Check to ensure proper weight distribution

Counter-weight to rest of truck

Ball Spreader evenly connected and not overloaded

Check that continues on other side

BEST PRACTICES SPREADER: PRE-TRIP INSPECTION CHECKLIST

USE THIS CHECKLIST AS A VEHICLE INSPECTION GUIDE

PRE-TRIP CHECKPOINTS:

Examine each of these checkpoints for proper condition and operation.

TAILGATE SPREADER (not in motion)

Ensure that the truck's ignition key is removed or power is disabled.

Check the following:

- Fuel level
- Adequate amount of salt
- Oil level
- Condition and color of oil
- Chain
- Proper tension
- Adjustment
- Oil?*
- Belts
- Overall condition (cracks, tears, rips)

HYDRAULICS (if applicable)

Check the following:

- Fluid levels
- Hoses and couplings
- No cracks or leaks

ELECTRIC CONNECTIONS CONTROLS

Check the following:

- Electric grease is applied
- Connections are completely engaged
- Do the spinner and auger/chisel controls work properly (electrical)

ENTIRE SPREADER TIED DOWN PROPERLY

Check the following:

- Ratchet binders
- Tight load straps
- Counter-weight (secure) behind rear axle?
- Ball Spreader evenly connected and not overloaded
- Cap protection securely in place (blocked)

AUGER/FEEDER

Check the following:

- Fast level
- Adequate amount of fuel
- Oil level
- Condition and color of oil
- Chain
- Proper tension
- Adjustment
- Oil?*
- Belts
- Overall condition (cracks, tears, rips)

COVER (if applicable)

Check to ensure the cover is not bent or damaged.

MISC. (if applicable)

Check the following:

- Weight of loaded spreader
- Deflectors
- Salt check control defectors
- Rheostat controls
- Sprinklers
- Tension straps
- Back spreaders (so they can't move forward)
- Safety bar around spreader so you don't run into it (what is its condition)
- Under tailgate (printed and bolted to the dump body (if not mounted), 2 sets of hydraulic for auger, 1 for spinner/scraper assembly, attached correctly with balancing rod
- Load rate operator, are they secure and flex?

SPINNER SHAFT

Check the shaft:

- Shaft is not bent/broken
- Shaft is not out of alignment
- Bearing condition/grease

HOPPER

Check the hopper:

- Foreign objects or material
- Large clumps of debris
- Insulated if condition
- Screen is tight and secure
- Check size setting (calibration)

SPINNER

Check the spinner:

- Spinner not bent
- Condition of spinner plate and throwing ribs
- Proper directional plate settings
- Spinner moves freely

AUGER/FEEDER CONVEYOR OR CHAIN

Check the auger:

- Auger conveyor is not bent
- Auger/conveyor is free moving
- Bearing condition/grease

COVER (if applicable)

Check to ensure the cover is not bent or damaged.

MISC. (if applicable)

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Snow Kit Contents Checklist

DO YOU HAVE THESE BASIC NECESSITIES PRIOR TO EACH STORM?

- Chisel, Triangles or Flares
- Spigasher
- Safety Vest
- Safety Glasses
- Plugs
- Kit
- (Place inside wind sock or other insulated material to sustain battery)

Level (for digging out tires if you get stuck on snow or ice)

In case your vehicle needs to be towed out of an area - rope for other vehicles)

Shovel (Snow brush combination)

Shovel (Water resistant)

Bag with necessary wrenches, sockets and spare parts

Blow gun (for situations if you get stuck on snow or ice)

Flare for gasoline engines and fuel line anti-gal for diesel engines

Washer fluid



www.sima.org/leadership

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YOUR SOURCE FOR SNOW & ICE MANAGEMENT LEADERSHIP
www.sima.org/bestpractices



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ADDITIONAL RESOURCES



Acquiring equipment is the first step. Conducting proper maintenance procedures, safety checks and training are all necessary to protect your assets and give your team the opportunity to work safely and efficiently. Checklists like those above and more are available to SIMA members at my.sima.org.

EQUIPMENT PRO TIPS

Maintain at a minimum 10% or more of capacity reserve in equipment to account for major storms, breakdowns, etc.

Control overhead and tight budgets by considering used equipment, renting or leasing.

Take a 360° approach to equipment maintenance to extend the life of your investment.

Finding the right materials and equipment can be difficult, especially when you are first starting out. Your overall buying power will generally be low, unless you already have a large fleet of equipment and well-established relationships. Either way, planning is essential and should follow these salt management best practices:

1 FORECASTING. Forecast needed deicing inventory based on total estimated square footage/acres of service area, averaged with a

minimum of five years of weather history (and salt use history if available).

2 INVENTORY. Contract or purchase a minimum of 50% to 75% of estimated deicing material (solids and brines) inventory by the end of summer.

3 SUPPLIERS. Establish purchase agreements with multiple suppliers to optimize control of supply and quality and to mitigate risk due to fluctuations in supply availability and cost.

4 EFFICIENCY. Stock the most efficient products to apply/blend when pavement temperatures are below 15° F (the temperature at which rock salt is no longer effective) if applicable to your market.

5 REGULATIONS. Follow local/municipal regulations for storage of deicer material.

Visit www.sima.org/startup for all Snow Startup resources



MAP IT OUT

➔ Site maps convey to your team exactly what should be done on a site and where, identify any safety hazards, eliminate language and communication barriers, and quickly educate backup operators who are unfamiliar with the site. Myriad free resources are available to get started, and as you grow many providers have software that can streamline the process. Get started with these best practices:

- 1 **DISTRIBUTE SITE MAPS.** Map out your properties before the season. Distribute a copy to everyone involved with the job: property managers, crew members, managers, subcontractors, etc. Preseason training should include site map reviews so the team understands the scope of work, the service schedule and any areas where crews need to take extra care.
- 2 **HIGHLIGHT RISK.** Use bold colors to illustrate areas of risk. Ensure obstacles are instantly visible at a quick glance alerting the crews to take extra care.
- 3 **GET SPECIFIC.** Include information that can greatly interrupt or impact service delivery, such as gate codes to the property, the nearest gas station, salt depot location and client contact information.
- 4 **VERIFY ACCURACY.** As the season progresses, check in with your team to ensure that the site maps are still an accurate depiction of operations at the property. Highlight any additional safety risks that may have come up since the start of the season, changes to snow storage, etc. If changes have been made, redistribute the new map to everyone involved.

BOOK IT

Whether you go old school with a hands-on binder or house it in the cloud, assembling all paperwork and information a team member may need in the storm can save time and keep everyone organized.

Paperwork flowchart: A visual aid to help employees understand the flow of paperwork, which is useful during implementation or the training process.

Contact list: Include contact information for all employees, truck and equipment repair vendors, parts suppliers, backup salt vendors and customers (if applicable).

Equipment or truck inspection list: A checklist that ensures operators do not miss any critical pre-use equipment inspections before a winter event.

Equipment or truck repair work orders: A form for repair requests or to inform the office and/or maintenance staff of a unit's noticeably irregular operation.

Service logs: Drivers/operators fill out service times, weather and pavement conditions, as well as services completed for each property visit.

Property damage report sheets: An incident report to be filled out if an operator damages a customer's property.

Site maps: These should include snow storage areas, high-traffic locations, handicap spots, fire hydrant locations, and other site information.

Quality control checklists: This can ensure that nothing is forgotten or missed on any site upon completion of service and before leaving the property.

First aid log: Any time first aid is rendered, it should be recorded.

Accident form: In the event of a vehicular accident, this form can formalize the information gathering process.

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