

# City of Gresham Transportation Division Winter Operations and Management Plan

## DRAFT May 2022

### A) Winter Management Materials

The City's NPDES Stormwater Permit issued by Oregon DEQ requires the City to ensure that all winter materials utilized on roads for anti-icing and de-icing purposes (e.g., abrasives, sand, de-icers including but not limited to magnesium chloride, solid salt, etc.) are utilized and stored properly, according to most updated an accepted practices.

- Our goal is providing a targeted, timely and effective approach to winter operations. We are pro-active in our approach, use products that are very effective at improving driving conditions, and have less of an environmental impact after the winter storm has ended. Treatment and techniques to control snow and ice are chosen by educated and trained staff based on the conditions of the weather event.

**Utilization:** The City's inclement weather response route consists of three categories: Priority 1 - hospital and emergency routes, arterial streets, and bridges; Priority 2 - through and collector streets, and steep grades; Priority 3 - residential streets, cul-de-sacs, and dead ends. If inclement weather persists, crews may be required to stay on the Priority 1 and Priority 2 streets until weather improves.

- **Anti-icing:** In a light ice event anti-icing is only applied to hills, curves and bridges. In a medium ice event anti-icing is applied to hills, curves, bridges and signalized intersections. In a full ice event anti-icing is applied to our full priority 1 and 2 streets if weather conditions are conducive prior to the storm.
- **De-icing:** De-icer may also be applied in conjunction with sand under some conditions. Prior to application staff evaluates the eutectic temperature, effective temperature and amount of material required to ensure effectiveness, safety and the environment.
- **Sand:** Sand may be applied in conjunction with de-icer under some conditions and when weather conditions are not conducive for de-icing materials. In a light, medium or heavy ice event sand is applied to Priority 1 and 2 streets on a as needed bases to hills, curves, bridges, and intersections and may be utilized in isolated areas when impacting traffic movement. We typically keep sand application to minimum as we recognize
- **Plowing:** Initiate plowing upon accumulation and repeat operations if accumulation continues. Plow in a manner to limit berms through intersections and reduce impacts to pedestrian crossings when possible. Plow and store snow away from surface waters.
- **Storage:** Include SOP info on storage, inspections/maintenance, and spill response.
- Liquid melting products: The City of Gresham has SOP's in place for routine inspections of storage and distribution tanks and equipment, maintenance of tanks and equipment and filling procedures

### B) Winter Maintenance Strategy:

- Level of service: The City's inclement weather response route consists of three categories: Priority 1 - hospital and emergency routes, arterial streets, and bridges;
- Priority 2 - through and collector streets, and steep grades;

- Priority 3 - residential streets, cul-de-sacs, and dead ends. If inclement weather persists, crews may be required to stay on the Priority 1 and Priority 2 streets until weather improves
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- Map of the priority areas can be found on the City's website at <https://greshamoregon.gov/severe-weather/>
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- Use of forecasts as a tool to help decision making.
- Pavement temperatures and weather conditions evaluated prior to anti-icing/de-icing
- Training on product use, environmental safety, spill response, driver safety and public safety.
- Safety briefings with staff and pre-trip/post-trip walkarounds on equipment
- Equipment pre-storm calibration and equipment performance
- Immediate equipment repairs
- Spill kits in every vehicle
- Plow and store snow away from surface waters
- Staff training (hands on, mag training, safety videos, plowing/sanding techniques)
- Plow snow and ice prior to using any chemical control; this aids in using less chemical
- Begin sand clean up as soon as the weather event allows.
- Dispose of sand at a DEQ approved facility
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- C) **Tracking and reporting:**
- The City of Gresham uses GPS tracking on winter equipment to document location, date and quantity of sand and or chemical distributed on city streets for each winter event.
- Equipment is calibrated each year and tested prior to events to evenly distribute products.