The scoop about sand

MaineDOT always strives to manage winter roads as cost-effectively as possible and we're often asked about good, old-fashioned sand. Sand is an important tool in snow and ice control, but it has many hidden costs. Though inexpensive in the pit, sand must be screened, hauled, mixed with salt to prevent freezing, stored, used in significant quantities and then cleaned up in the spring.

Other disadvantages of sand include:

- Scarcity of good quality sand
- Has no ice-melting ability
- Requires constant re-application
- Can cause skidding on dry pavement
- Causes paint chipping and broken windshields
- Creates drainage problems
- Smothers roadside vegetation
- Causes siltation of waterways

MaineDOT's use of anti-icing techniques means a significant reduction in our use of sand. We think that's a big advantage environmentally. Roadside ditches are sand-free, making storm water runoff more efficient. Waterways don't receive the

annual surge of salt and sand that smother aquatic habitat.

MaineDOT's Environmental Office plays a pivotal role in minimizing the effects of winter road

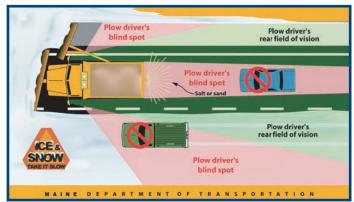


maintenance by ensuring that the latest technologies, training, and equipment are available. Their staff has the expertise to monitor impacts to landscaping, surface water and ground water, and provide technical assistance to the public and the department.

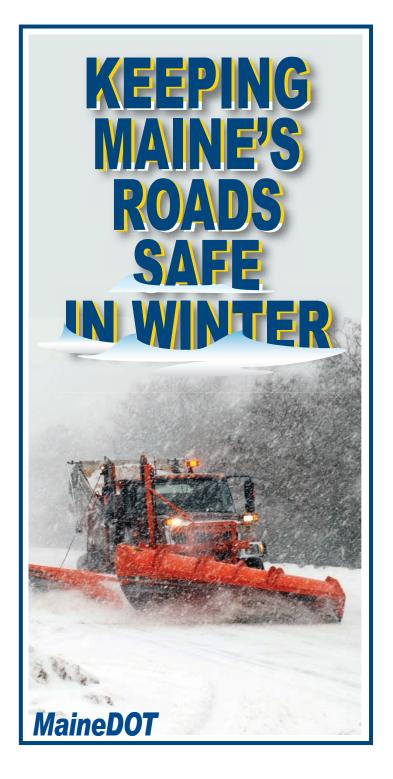
Stay safe around snowplows

At MaineDOT, we strive to keep the roads safe. MaineDOT has a fleet of roughly 350 plow trucks that are used to control snow and ice on approximately 8,300 lane miles of Maine's state roads. MaineDOT snowfighters are some of the most talented and dedicated professionals in the business. But even the best snowplow operators can only do so much to keep you safe when driving. Be mindful of road conditions, and please:

- Stay home if you can and check www.511Maine.gov for current road conditions.
- If you must go out, give snowplows room to do their work. Plows are wide and can extend across the center line.
- Don't tailgate, and don't pass unless absolutely necessary and safe to do so. If you must pass, beware of the snow cloud created by plows.
- Remember that the snowplow operators have a limited field of vision. Though you see the plow, our snowfighters might not see you. Keep your distance and always stay alert.



For more information on snow and ice control visit mainedot.gov



Keeping Maine's Roads Safe In Winter

Ever since roads were built in Maine, keeping them passable during winter has been a top priority for



MaineDOT. Safe roads remain a top priority, but the technology and treatment of winter roads has evolved.

Previously, roads would be plowed, sanded and salted during a storm. This method was used effectively for decades, but resulted in snowpack bonding to the road for hours and days until crews used salt to remove it.

Today, MaineDOT uses a technique called "anti-icing" that prevents snowpack from forming. Specially calibrated equipment spreads salt early and throughout the storm to prevent the snow and ice from bonding to the road. This results in bare and safer roads soon after the storm.





Getting ahead, staying ahead

As a winter storm approaches, MaineDOT snow fighters are hard at work preparing their routes and equipment. Prior to certain types of storms, roads may be "pre-treated" with salt brine. Salt brine is a mixture of salt and water that dries in 45 minutes, leaving a white film of salt that dissolves the first snowflakes as they land on the pavement and minimizes snow packing.

Throughout the storm, as rock salt is applied, it may be "pre-wetted" with either salt brine, a corrosion-inhibited liquid magnesium chloride, or a blend of the two products. Pre-wetting helps the solids stick to the pavement, and speeds melting at lower temperatures and with less salt.



It's not your grandfather's plow

When storms are cold (below 15°F), nothing is more effective than a plow. Cold temperatures and dry snow means the plow alone can push the snow off the road without anti-icing materials, which would cause the snow to get wet and stick to the roads.

Of course a plow is only as effective as the person behind the wheel.

MaineDOT plow drivers spend countless nights and weekends making winter roads safe for all of us. As techniques for treating winter roads have become more sophisticated, so have the cabs and plows. Drivers not only have to pay attention to the road, but also to the controls that determine which materials are being applied and when.

