# MassDOT Highway Snow and Ice Operations Frequently Asked Questions

## • Why do snowplows block my driveway with snow when they clear the road?

We are sorry for this inconvenience. While plow crews try to minimize the amount of snow that gets plowed into driveways during the storm, it is the responsibility of the property owner to clear their driveway opening. Also, as long as there is snow in the street, the plow driver will continue to plow the street. Some of this additional snow will end up at the driveway opening. To avoid double work try to shovel snow from your driveway after the plow has been by, and shovel the snow to the right side of your driveway as you face the road instead of to the left.

• Why do workers spray liquid onto the roadways before a big storm arrives? It may seem dangerous to add liquid to a road that might freeze, but the liquid is most likely calcium chloride, which will prevent snow from sticking to the road and prevent frost or black ice. See the link to "Spreading Materials" for additional information.

## • Why doesn't MassDOT put salt on the roads before it snows?

Putting salt on road surfaces prior to a snowfall wastes time and money since salt often bounces from the dry road during application and, the portion that manages to land in the right location is subject to wind-which blows it off the road before it can do its job. Salt is most effective after snow has accumulated and the temperature is 20 F or higher. Under these conditions, the salt and snow will mix, melting snow into slush that can be plowed off the pavement. This melting action will occur within two hours, less if traffic is using the highway. If the temperature is below 20 F, the salt will have difficulty melting the snow and ice, so other methods are used. Abrasives are put down for traction, and calcium chloride can be added to enhance the ability to melt the ice and snow.

## • Why doesn't MassDOT use more sand?

Our experience, and the body of research on the use of sand, indicates the benefits of abrasives (sand) applied to roadways are very minimal. Abrasives are easily displaced from the roadway by traffic and they have no ice melting properties. There are also negative environmental consequences such as air pollution and siltation of waterways. When you consider the cost of the material from purchase, storage, and dispersal; through removal, clean up, and disposal; it is not a cost effective material for snow and ice operations.

# • What is the importance of pavement and subsurface temperatures? Why not rely on just air temperature?

The ability of deicing agent to melt snow and ice depends on the temperature of the roadway and not the air temperature. During the fall the pavement is often kept warmer than the surrounding air because of the warm soil. During the spring the reverse may be true. The pavement temperatures can be colder than the air because the soil is still frozen from the low winter temperatures. The sun also has a strong influence on the pavement temperatures. It can help heat the pavement and speed the melting process. Air and pavement temperatures can often differ by as much as 20 degrees Fahrenheit.

## • Am I allowed to pass a snowplow?

There are no state laws that prohibit you from passing a snowplow. However, **the action of passing can be extremely dangerous** as the pavement conditions vary across the path taken to pass. Snowplows may be equipped with wing plow blades that can extend anywhere between 2 and 10 feet beyond the

width of the truck. This wing plow blade is often not seen because of the snow cloud being kicked up by the snowplow. These wing plows can often weigh as much as a compact car.

## • Who determines when the snowplows are called out?

Under our policy, the local Highway field personnel determine when and how to respond to a storm. The Highway Foreman stationed at the nearest maintenance yard is typically responsible for calling out the crews.

- Are studded snow tires allowed in Massachusetts? Studded snow tires are legal from the First of November to the End of April.
- I've sometimes seen snowplows driving along during a storm with their plows in a raised position. Why are they not plowing?

There are a couple of reasons plows aren't always pushing snow. Plows may be in operation only to spread materials, or may be out of materials to spread and headed back to a Highway Depot for a refill. Another possibility is that the driver does not have the responsibility for the road he is currently on - and he's heading elsewhere.

- My mailbox was knocked down by the snowplow. Who is responsible for replacing it? Any mailbox damaged while located within the State Right-Of-Way is the homeowner's responsibility. If the mailbox is located on private property, the homeowner is encouraged to call the local Highway District office (<u>Contact Information</u>) and bring the matter to their attention. Restitution, if appropriate, can range from repair or replacement.
- During snow storms, I've seen groups of snow plows idling along the highways. Why aren't they doing something?

Unlike material spreaders that return to our depots between deployments, snowplows are instructed to idle at staging areas alongside the highways. They may be temporarily inactive for a number of reasons such as: waiting for chemical treatments to work or waiting for additional equipment so that a complete "battery" can be formed.

#### • Why would material be spread on a bare highway after a snowstorm is over?

The projected roadway temperatures have a lot to do with the final treatment of a road. After plowing operations have finished and a roadway is left in the so-called "black and wet" condition, there is sometimes the danger of the water on the road re-freezing. This post-storm treatment of roads is typically needed at night - since temperature drops can be more dramatic than when the sun is shining.

## • Why does the condition of the roadway vary as I drive the highway during a storm?

There are several possible reasons for the variations. (1) The stretch of roadway can have different subsurface temperature gradients causing the road surface to be colder and allowing a greater chance for freezing to occur. (2) Bridge decks, being surrounded by cold air, may be more slippery than the approach roadway. (3) Certain areas are designated "Low Salt Areas" which necessitate the use of less sodium chloride during the treatment phase. These areas tend to have a reduced level of service in comparison to adjacent areas. (4) The variations in operations between adjacent roadway crews can produce varying conditions at any given time of the storm. The bottom line is: reduce your driving speed and be aware that conditions can change!

#### • Where can I send my questions and comments?

The email address for questions and comments is <u>DOTFeedbackHighway@DOT.state.ma.us</u>.