Weother
Oregon's weather can change quickly and without warning. Winter can be particularly challenging. Whenever there is a chance of stormy conditions, ODOT prepares to enact its "Winter Level of Service" program.

Operations
Oregon's ice and snow removal program is a comprehensive strategy to maintain state highways for winter driving. This plan aids in preventing ice and snow buildup on the roadway and provides for the removal of ice and snow when winter weather arrives.

Be prepared to put on chains!
- Practice chaining up before you get out on the roads.
- Look for signs indicating when chains or traction tires are required. When required, pull over to the right of the highway as far as possible or pull into a "chain up" area.
- Use only your vehicle's recommended type and size of chains. Follow manufacturer's installation instructions.
- Do not deflate your tires to install chains.
- Use a tarp or plastic sheet to help keep you dry when chaining up.
- Keep children and pets in the vehicle to avoid distraction and injury.
- Carry a towel to clean your hands.
- Put an extra key in your pocket so you don't get locked out.

Know before you go...
Find out about road conditions, weather forecasts, chain requirements, incidents and more by visiting www.TripCheck.com or calling 5 - 1 - 1 (or 1 - 800 - 977 - 6368). Out of state, call 1 - 503 - 588 - 2941.

You're invited to learn more about the Oregon Department of Transportation's Snow and Ice Program.

Discover how ODOT clears highways and bridges, protects the environment, and helps motorists travel safely in much of the Willamette Valley, Coast Range, Cascades and the north and central Oregon coast (Region 2).
De-Icing Agents

Anti-icing/de-icing: ODOT pre-treats roadway surfaces prior to freezing temperatures to help prevent the bond from forming between the pavement and the precipitation. ODOT also will use the de-icing technique to cut through frozen ice and snow. However, there are times when the accumulation occurs too quickly or temperatures drop, where de-icing is not effective. Then ODOT manages the pack or ice with sanding applications.

Snow Blowers
Snow blowers are used to clear deep snow on mountain passes and along the highway where snow builds up and must be moved clear of obstructions.

Which anti-icer/de-icer liquid is used by ODOT?

ODOT mainly uses magnesium chloride, which contains a rust inhibitor and was selected for its ability to meet the needs of Oregon’s various temperatures, weather and environmental conditions.

Tandem Plowing
Tandem plowing or gang plowing is used when plowing can only be done in one direction, such as a multi-lane divided highway. Additional plows are used to plow the on and off ramps.
ODOT is responsible for providing a safe state highway system. This becomes especially important when winter storms strike.

**Level of Service A: First priority.** If compact snow, ice or frost forms on the roadway, sand/chemicals should be applied as appropriate to try to provide traction and assist in the breakup and removal of the snow, ice or frost. Snow should be removed continually. As appropriate, pre-treat roadway with de-icing chemicals and apply de-icing chemicals to roadway if snow or ice is accumulating.

**Level of Service B: Second priority.** If compact snow, ice or frost forms on the roadway, sand/chemicals should be applied as appropriate to try to provide traction and assist in the breakup and removal of the snow, ice or frost. Snow should be removed continually. As appropriate, pre-treat problem areas with de-icing chemicals and as appropriate, apply limited applications of de-icing chemicals at problem areas to roadway if snow or ice is accumulating.

**Level of Service C: Third priority.** Snow pack and ice should be sanded at known problem areas, which may include grades, curves, bridges or ramps to enhance traction. Snow should be removed during regular scheduled shifts. As appropriate, pre-treat problem areas with de-icing chemicals. Accumulated snow pack should be groomed. Chemical de-icer may be used on a limited basis to remove ice or snow pack in known problem areas.

**Level of Service D: Fourth priority.** Snow pack and ice should be sanded at known problem areas, which may include grades, curves, bridges or ramps to enhance traction. Snow should be removed during regular scheduled shifts. Chemical de-icers generally are not used either to pre-treat or to remove ice or snow pack.

**Level of Service E: Fifth priority.** Limited snow and ice removal. Highways may be closed when conditions dictate.

Remember — air temperature is not an indicator of the temperature of the road surface. Drive carefully!

Even before a storm reaches Oregon, a network of weather stations collects information via sophisticated air and road surface sensors. With these alerts, ODOT maintenance crews can be more cost effective and timely with their applications of anti-icers to forestall the accumulation of ice and snow on the road and to place sand. By the time a storm arrives, most ODOT crews have already been on the scene.

When a storm persists, ODOT's Region 2 crews have more than 172 snowplows, 90 sanders, five snowblowing rotaries, 25 anti-icer/de-icer application trucks, and almost 400,000 gallons of chemical storage to cover more than 5,100 lane miles, the most of any region in the state.

When the weather is at its worst, ODOT's statewide Winter Level of Service Plan goes into effect. It establishes anti-icing/de-icing, sanding, and plowing priorities for the state system of highways. Priorities are based on the relative amounts of traffic that the highways typically carry and the anticipated impact to commerce and industry. There are five Statewide Levels of Service. Highways tagged for high-volume priority service will be plowed first; medium- and low-volume highways will be handled as soon as possible thereafter.

Clean up operations begin as bad weather clears. It normally takes 4-8 weeks to remove all the sanding material that was placed on the road surface. During a one day storm, ODOT may use approximately 600 trucks full of sand and 150 trucks of de-icer.
TripCheck goes mobile!

DOT's road information website, www.TripCheck.com/mobile, is now formatted for mobile devices, such as cell phones and personal digital assistants. By saving the TripCheck.com/mobile site as a bookmark on your iPhone or "favorites" on your smart phone, you can view camera shots, get the latest incident information, find out about chain requirements, locate a hotel (and dial directly to get a room!) and see weather alerts, plus much more, in an easy-to-navigate format. You can also sign up to get alerts through Twitter.

TripCheck.com is part of ODOT's Intelligent Transportation Systems effort, a statewide plan to help keep Oregon's roads safe and traffic moving. To learn more about ITS plans, visit www.oregon.gov/ODOT/HWY/ITS/its_documents.shtml.