



Road Weather Information

INTELLIGENT TRANSPORTATION SYSTEMS IN THE PORTLAND METROPOLITAN REGION

Monitoring devices provide early warning of dangerous road conditions to drivers and maintenance crews.

BENEFITS

Mobility: Travelers can avoid weather conditions that might cause congestion.

Safety: Allows drivers to plan alternate routes or be prepared for dangerous road conditions.

Cost effectiveness: Allows road managers to deploy weather treatments without a site visit.

Treacherous driving conditions, from the West Hills to Blue Box Pass, can become serious safety problems. Conditions that warrant chains or traction tires may be the most obvious examples but even less severe weather, such as rain and fog, can increase the probability of collisions. The two challenges associated with addressing this problem are (1) collecting accurate, real-time information about road-weather conditions and (2) communicating that information to the traveling public in an efficient and dependable manner.

ODOT and other agencies use a set of technologies that are known collectively as Road Weather Information Systems (RWIS). The devices continuously monitor temperature, precipitation and wind; some stations can actually measure the temperature and moisture content of the pavement. ODOT collects these raw data and uses them to create valuable information that is disseminated to travelers via message signs, the TripCheck website and hotline, and the media.

The primary benefit of the RWIS is safety, namely equipping motorists with complete information about road conditions. With this information, drivers can prepare for or avoid dangerous situations, perhaps by taking an alternate route or waiting until a storm has passed. Another benefit of the data is to public works departments, which use the information as the basis for resource allocations. For example, during a snow/ice event, sensor data can help prioritize which roads get treated or plowed first.

“TripCheck allows our company to access highway conditions and reroute our trucks during periods of inclement weather.”

– Bruce Leonard,
Director of Safety for Portland-based Market Transport

“Using the data from our RWIS station has allowed us to more cost effectively deploy our limited resources, including personnel and equipment.”

– Joe Marek,
Clackamas County Traffic Engineer



Monitoring devices collect weather information that is distributed via websites (inset), hotlines and message signs.

For more information, visit
www.metro-region.org

