

TSM&O Category: [Weather](#)

Project Team: UDOT

Problem: Weather events can cause non-recurrent congestion, crashes, and decrease travel time reliability. Automated weather information systems may produce unreliable forecasts, are expensive to implement, and can be slow to adapt to quickly changing conditions.

Solution: Develop a customized road weather information system (RWIS) and supporting infrastructure that relies on human forecasters.

Project Description: UDOT's RWIS program includes:

- A customized system with non-proprietary weather data that is developed, built, & operated by UDOT
- Weather forecasters in the Traffic Operation Center (TOC) that produce twice daily forecasts and are available 24/7 to field maintenance personnel
- A traveler information weather program available at the UDOT Traffic website, via mobile phone apps and the Utah 511 service
- Collaboration with the National Weather Service on weather advisories and traffic impacts
- Road surface forecasts for maintenance crews
- Archived data, forecasts and traveler information for review and future projects and research

Results:

- More accurate and timely weather forecasts
- Personal interactions between forecasters, engineers, and field personnel result in improved operations and responses to weather events
- Reduced costs to install and maintain weather equipment
- Cost savings from in-house operations, program management, and preventative maintenance

Cost: An evaluation by the Western Transportation Institute determined that, on average, the UDOT RWIS program saves \$2.2 million per year for snow and ice control activities. These savings generate a benefit/cost ratio that exceeds 10:1.

What's in it for me?

- Better weather forecasts and traveler data
- Faster responses to weather events
- Lower costs from in-house data management
- A DOT wet pavement detection and advisory system reduced crashes by 39 percent.

Quote: "Having meteorologists on site at the Traffic Operations Center and developing our own Road Weather Information System has consistently produced better data and better outcomes for UDOT maintenance projects while doing so at a fraction of the cost of automated systems used in other states."

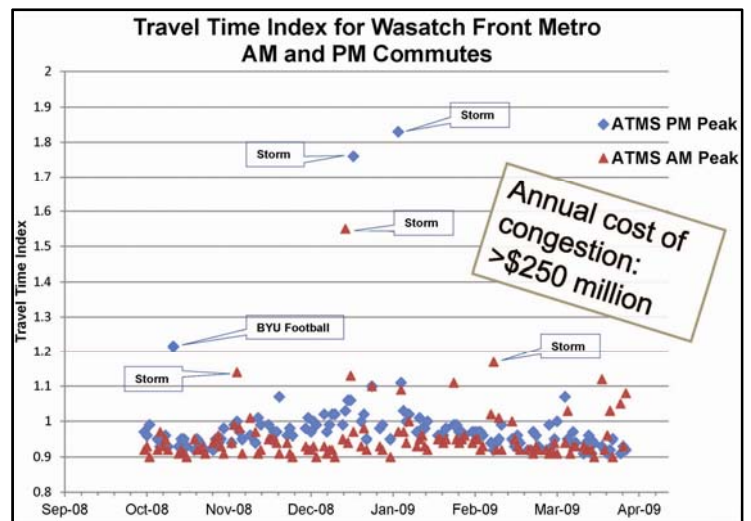
Leigh Sturges – UDOT Weather Operations Manager

Multimedia:

[UDOT Traffic – Road Weather page](#)

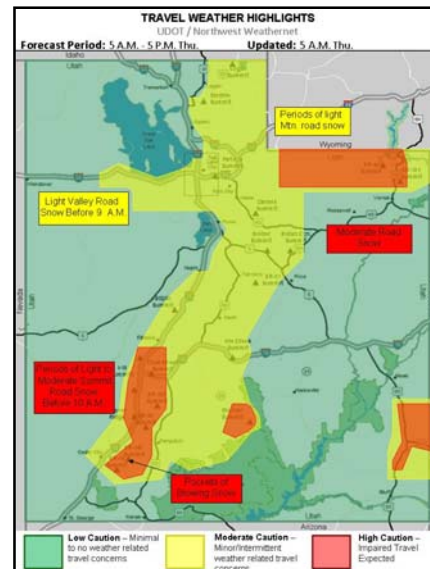
UDOT Traffic App for: [iPhone](#) | [Android](#)

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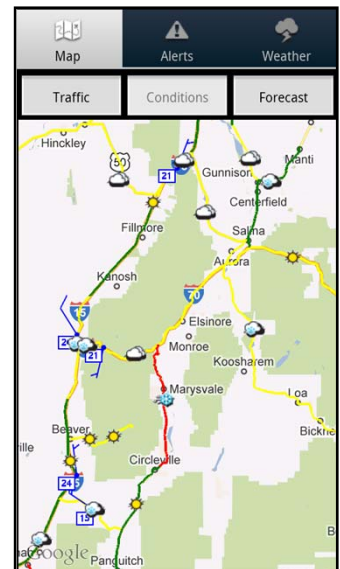
Source: Utah Department of Transportation

Traveler Information Forecast



Source: Utah Department of Transportation

Android Road Conditions App



Contact: Leigh Sturges, UDOT Weather Operations Manager, leighsturges@utah.gov

Lisa Miller, Traveler Information Manager/PIO, lisamiller@utah.gov

Keywords: weather, RWIS, operations, maintenance, non-recurrent congestion, safety, reliability, traveler information