

SUSTAINABLE ROAD SALTING PRACTICES

RWIS

An RWIS (pronounced R-wis) is a Road Weather Information Station. RWIS provide real-time site-specific information about conditions at a site using cameras, and air and pavement temperature sensors.



AEM StormLink

BENEFITS

- Cameras and sensors afford staff remote knowledge of site-specific conditions. Such knowledge informs staffing needs to maintain surfaces for public safety.
- RWIS can save communities and businesses staffing and mileage costs and allow staff additional time for other work or free time (e.g., sleeping during a nighttime storm).

CONSIDERATIONS

- RWIS can provide staff with improved work-life balance by offering site-specific information about conditions from anywhere.
- There may be opportunity for local snow fighters to use information from the UVM MesoNet Network (that monitor environmental conditions like RWIS) or the NY or VT transportation agencies' environmental sensor stations.

CHALLENGES

- RWIS may be vulnerable to vandalism.

COSTS

\$2500 for one mini-RWIS, including a camera, air and ground temperature sensors, and peripherals plus \$500/year for the data plan to connect to the internet.

More advanced RWIS (e.g., with additional information such as visibility distance, wind speed, wind direction, precipitation type and rate, pavement conditions, and personalized site-specific forecasts) have higher costs, which vary based on features selected.

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<https://www.uvm.edu/seagrant/road-salt-water-quality-salt-savvy-champlain>

COMPANIES

Companies that market RWIS include:

- [AEM](#)
- [Campbell Scientific RWIS](#)
- [DTN RWIS](#)
- [High Sierra Electronics RWIS](#)
- [Intellisense Systems](#)
- [Lufft RWIS](#)
- [Perry Weather Systems \(no camera; seems to target school campuses\)](#)
- [Traffic Data Systems](#)
- [Vaisala XWeather](#)
- [Viaseys mini-RWIS](#)

*Companies listed may offer additional products not included here. In addition, other companies not included in the table may carry similar products. Listing does not constitute endorsement on the part of the University of Vermont, Lake Champlain Sea Grant, or NOAA. Information is provided for educational purposes only.

LOCATIONS

The following communities in the Lake Champlain Basin are using RWIS for snow and ice management:

- Edinburg, NY
- Peru, NY – Peru’s highway superintendent drives 10,000 to 15,000 miles less each year by using a series of RWIS to observe road conditions throughout the community.

Does your community or business use RWIS to inform your snow and ice management and do you operate within the Lake Champlain Basin of New York or in Vermont? Let us know and we can list your community or business here too.

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