

CASE STUDY

A CUSTOM SNOW ZONE SOLUTION PROVIDES 98% GREATER EFFICIENCIES

Western Systems partnered with Washington County to create the custom solution they needed to better manage snow zones

TREACHEROUS SNOW ZONES IN NORTHWEST OREGON

Washington County, in the northwest corner of Oregon, gets snow or icy conditions four or five times each year on their roadways. It's not quite enough to require a fleet of snow removal vehicles, so when bad winter weather does roll in, maintaining roadways becomes difficult.

Three different sections of road in Washington County are designated as snow zones. The high elevation and steep grade combined with snow and ice often require vehicles to use chains during inclement weather conditions.

SIMPLIFY WORKFLOWS FOR IMPROVED SAFETY AND OPERATIONAL EFFICIENCIES

There are a total of 8 signs in Washington County's snow zones. They were initially installed with a set of static, flip-up panels that could be manually turned when the snow zones were implemented.

It only took one winter season with the flip-up signs for Washington County to realize that sending a person out to climb a ladder, unlock the signs, and flip them—at eight locations, in an ice or snow storm—was not a great long-term solution.

The following season, as an interim solution, each sign was fitted with a switch-activated beacon. This simplified the process but still required dispatching teams all over the county in inclement weather.

Washington County needed a streamlined solution for activating snow zones—that didn't put anyone on their team in danger.



WESTERN SYSTEMS DESIGNS A CUSTOM SOLUTION FOR AN EXISTING INTERFACE

Western Systems designed a custom, wired enclosure for the Applied Information field communications monitoring unit (FCMU), an Alpha Micro battery backup, and 12" LED yellow ball lights. Each unit also includes a camera, wired into the battery backup system.

The FCMU communicates with Applied Information's Glance software, which Washington County was already using. The unit has cellular and GPS capabilities and is designed for extreme temperatures.

The Alpha Micro 350 backup is a compact unit, also designed to perform in demanding environments. It provides up to 11 hours of uninterrupted backup power and can be monitored remotely.

"The cabinets for the Washington County's snow zones was an interesting project. We needed to make room for the Alpha battery backup, think about where to put the inverter, figure out where to install the battery without blocking airflow to the brains of the device, etc. But it also had to be easy for users to understand and troubleshoot."

– Jason Spencer, Territory Manager, Western Systems

The cabinets were all installed and activated at all eight locations over the course of three months.

98% TIME SAVINGS AND 100% SAFETY IMPROVEMENT

The new, custom solution enables Washington County to monitor and activate snow zones remotely, and the familiar Glance software helped the agency get up-and-running quickly.

Data and camera feeds are updated every 30 minutes, and Washington County can share that information with the public to improve safety. The County is working to share the information with TripCheck, which is a statewide traveler information website operated by the Oregon Department of Transportation. The website provides detailed information about traffic congestion, incidents, weather conditions and more.

When snow zones need to be activated, the agency can turn on beacons almost immediately, with the click of a button from the office. A process that used to take four hours or more now takes less than five minutes and doesn't require driving across the county in dangerous conditions. Additionally, there is virtually no delay in getting safety information to the public, and local law enforcement can begin enforcing snow zone requirements immediately.

In the future, Washington County plans to install weather stations at each of these locations as well, in order to provide additional details on weather conditions to decision-makers and the traveling public.

Snow zone safety is just one of several custom projects that Western Systems has facilitated for Washington County. Learn how our solutions experts and engineers helped the Washington County team improve safety and increase efficiencies in flood zones and school zones across northwest Oregon as well.

