



DATE: November 6, 2023

TO: Mayor Robinson and City Councilmembers

FROM: Chris Long, Assistant Director, Mobility Operations, 452-6013
Transportation Department

SUBJECT: Winter Weather Preparedness and Response

Introduction

Bellevue experiences a wide range of weather during the winter season including heavy rains, strong winds, snow and ice. The seasonal forecast strongly indicates a El Niño weather pattern, which is a change from the three straight years of a La Niña pattern. During El Niño years we anticipate storms coming off the Pacific to generally track further south toward Southern California. The storms that hit our region are generally less frequent and slightly warmer than in La Niña years.

Although we consider seasonal forecasts, this information is used for awareness as we consistently prepare to respond to weather events throughout the year. The shorter term (current to 14-day) forecasts are far more useful to execute equipment, material and staff planning for weather-related events.



Flooding



Snow and Ice



Wind

Preparedness, Response, and Recovery – One City Approach

Eligible staff from Transportation, Utilities, Parks and Community Services, and Finance and Asset Management (Facilities and Fleet) are trained in response and recovery activities prior to the winter season with this year's training occurring throughout the month of October. Over 150 staff participated in this year's full day training event where each person rotates through various classroom session and hands-on stations to learn how to drive a plow route, install tire chains, address vegetation issues during a snow event, maintain a plow assembly and properly load

sand and anti-icing liquid. This year's training was recorded by Bellevue TV so that we can train new staff that may join the City in the middle of winter weather season.

New Innovations for 2023/2024 Season

Last season, we had two snowstorm events where we were able to do beta testing of our new public facing real-time snow removal map. We look forward to further refining this mapping system through the coming winter weather season. We received positive feedback from the public following the launch of the map last year.

New this year is the deployment of five "Road Weather Instrumentation Systems" (RWIS). These devices provide real-time weather information and roadway temperature monitoring that can be used to refine our localized forecast and help our staff determine when it is appropriate to apply anti-icing liquid. This tool will improve the safety of our roads and help us make the best use of our staff time and materials.

Interdepartmental Support for Winter Weather Response

Transportation is the lead department for snow and ice events but only has half the staff required to manage a large event on their own. A typical snow event that extends to the lowlands requires 58 staff. It requires a "One-City" approach to properly manage a snow event. The following summarizes the roles of our partners:

- Finance and Asset Management is a critical department in winter weather response activities. Not only do they address facility needs, they also service vehicles and equipment before, during and after snow events.
- The Parks and Community Services Department provides additional support personnel for plowing and dispatch and leads snow removal efforts at City buildings and fire stations.
- The Utilities Department also provides personnel for plowing and dispatch and leads the response for flooding, water main breaks and sewer issues.
- The Office of Emergency Management (OEM) conducts training and exercise activities for operational departments using winter weather scenarios. The OEM is also able to quickly staff the Emergency Operations Center with trained city personnel during significant winter weather events to assist with the coordination of public safety announcements.

Ice and Snow Response Management

Bellevue's topography presents a unique challenge for ice and snow response. Since many ice and snow events occur only at higher elevations, resources are usually enough to service residential streets in addition to priority routes. However, if snow or ice is accumulating Citywide, only priority routes will receive continuous plowing and/or de-icing until conditions stabilize. The ability to get plows into neighborhoods during Citywide events is influenced by event intensity and time of day/day of week. Attachment A shows how different roadways are prioritized throughout the City.

A major ice or snow occurrence is considered an emergency event, thus our top priority when an event starts is life safety. We focus on making sure our arterial roadways are

passable for emergency responders and other essential public services. The next priority is property damage. We work to address issues in the public right-of-way that could lead to damage on private property, such as erosion, flooding and falling trees. Once emergency situations are addressed and priority routes are passable, we start working on other arterials and neighborhoods streets to provide for public transportation, school transportation and the general public to start traveling throughout the City.

Communications

The public can obtain a real-time view of road conditions during a winter weather event using the City's traffic map and camera page on the following website:

<https://trafficmap.bellevuewa.gov/>.

The public facing winter event response map can be accessed at the following website: <https://bellevueWA.gov/winter-response-map>.

The public can also sign up for extreme weather emergency alert via email or text notification at: <https://bellevuewa.gov/city-government/departments/city-managers-office/communications/emergencies-and-extreme-weather>.

Summary

Bellevue devotes significant resources to winter weather preparedness and response with a coordinated, One City approach. For questions, please contact Chris Long at clong@bellevuewa.gov.

Attachment

A. Snow Response Priorities Map