

The City of Kent Winter Weather Plan contains tips and best practices to help you prepare for winter weather. It includes information on the City's capabilities and strategies for maintaining roadways, communication and public safety during heavy rain, snow and ice.



What You Can Do

Stay Informed

- Sign up for email alerts (DriveKent.com) from Drive Kent for the latest information on traffic, safety and road closures around the City.
- Follow @cityofkent on social media and check it periodically during winter weather events for updates.
- Read about how to prepare for winter weather and what the City does to prepare and respond to winter weather events, including heavy rain, snow and ice.



Maintain emergency supplies

During an intense winter storm, your ability to travel may be limited and you may need to stay home for several days. Emergency supplies are basic items your household may need in the event of an emergency. It's never too late to get a kit together!

- ☐ First-aid kit
- ☐ Flashlights with batteries
- ☐ Plenty of water and non-perishable food
- ☐ Manual can-opener, wrench or pliers
- ☐ Duct tape
- ☐ Battery operated radio
- ☐ Personal hygiene items and medicine
- ☐ Portable battery and charging cords for electronic devices
- ☐ Fire extinguisher
- ☐ Sanitation supplies
- ☐ More Information (KentWA.gov/winter)

Winterizing Your Vehicle

Winter driving conditions can be hazardous, so it's important that you are prepared for driving during inclement weather and that your vehicle is up for the challenge if you must go out.

- Fill your gas tank before it is half-empty.
- Install snow tires/replace worn tires.
- Practice installing tire chains.
- Check your anti-freeze levels.
- Check your windshield fluid levels and wipers.
- Ensure your heater and defroster work properly.
- Make sure your brakes and transmission are working properly.
- Lubricate door and trunk locks with lock lubricant to prevent freezing.
- Keep emergency supplies with extra clothing in your car.



Winterizing Your Home

It's important to get ahead of winter weather and make sure your home is ready to handle the cold to come.

- Insulate your water pipes and faucets.
- Caulk and weather-strip doors and windows.
- Repair roof leaks.
- Clear debris from storm drains and gutters.
- Cut tree branches that could fall on your home or vehicles during a storm.
- Make sure your furnace and chimney work properly.
- Check the batteries in your carbon-monoxide and smoke detectors.
- Take precautions to avoid carbon-monoxide poisoning if you use a generator.
- More Information (Weather.gov)



Staying Safe During a Storm

Winter storms can be dangerous. They can bring cold temperatures, icy roads, <u>power outages</u> (<u>doh.wa.gov/emergencies</u>) and loss of communication services. This can make being outside dangerous, so you should limit your time outside whenever possible.

- Stay indoors and stay warm.
- Stay hydrated and eat regularly.
- Conserve fuel and battery when possible.
- Bring your companion animals inside before the storm begins.
- If you must go outside: wear layered clothing, keep dry, walk carefully, avoid overexertion and use public transportation if possible.
- Learn the signs of and basic treatments for frostbite and hypothermia.
- Reduce the risk of a heart attack by avoiding overexertion when shoveling snow and walking in the snow.
- If you must drive your vehicle: check the latest road conditions, drive carefully, let someone know where you're going and make sure you have emergency supplies.
- Call 911 for health and safety emergencies, including an accident during the weather event.
- If you have a medically necessary appointment and need to leave your home, please call 911. They can contact the local jurisdiction and coordinate with them for access assistance.
- More Information (Ready.gov/winter-weather)



Preparing for Flooding

While Kent continues to build and maintain our drainage infrastructure and is actively involved with FEMA and other agencies to improve our levels of flood protection, there is no way to fully eliminate the risk of flooding.

- Make sure you have a flood insurance policy if you live in susceptible area.
- Mark your fuse or breaker box to show circuits to floodable areas.
- Know how to shut off the electricity and gas to your house before a flood.
- Make a list of emergency numbers and safe places to go.
- Make a household inventory.
- Put insurance policies and important documents in a safe place.
- Check your building for water entry point; they can be protected with low walls or temporary shields.
- More Information (doh.wa.gov/emergencies)



Other Tips

- If your car is covered in snow, clear it off before leaving your home.
- Do not leave your stranded vehicle in the roadway get it towed out of the path of traffic. Leaving vehicles endangers both other commuters and City personnel responding to help clear the roadways and prevents us from being able to plow/treat a roadway.
- Do not go around "Road Closed" signage. Failure to Obey Traffic Control Devices (RCW) 46.61.050) carries a penalty of \$139 and the police department will ticket you.
- Do not pass snow response vehicles, they are also susceptible to weather hazards and sliding so please be patient and give them plenty of room.
- Do not shovel snow into the street! Please pile it safely on your property and away from the road and sidewalk.
- Help each other: Clear snow and slush from catch basin grates and, if possible, clear a one-foot area along gutter lines, so the melting water has room to flow to the catch basins.
- After inclement weather events, be sure to clean off the underside of your vehicle since chemicals can be corrosive.
- Keep an eye out: Report potholes and water over roadway sightings on the KentWorks app, by calling 253-856-5600 or by emailing PWOps@KentWA.gov. After hours reports can be made by calling 253-856-5600 and selecting option 1 to reach dispatch.
- Please continue to be patient with us as we will be blocking lanes of traffic and working in the roadways. Help keep our crews safe by driving slowly and carefully around them; a friendly wave is always appreciated!
- Park your vehicle in your driveway or another suitable location prior to a predicted weather event.
- Plan ahead with family members and decide how you will get in contact with each other, where you will go, and what you will do during a serious disaster or emergency situation.



What We Do

Snow & Ice Preparation

The City of Kent maintains a seasonal weather monitoring forecast to help predict possible weather events. We receive daily reports on current and upcoming weather concerns, and our 24-hour monitoring system informs us of changing weather patterns that might affect road conditions.

- Mechanics check and prepare snow and ice equipment prior to the beginning of every winter season, and staff in Fleet Services must acquire special certifications to work on the large equipment that is used for weather event responses.
- Message boards are pre-deployed for road closures or winter weather advisories on Veterans Drive, Military Rd, E James St, SE 208th St, 116th Ave SE at Kent Kangley, I St NE at S 277th St.
- Signage throughout the City in preparation for predicted snow and ice events. If you see them on the sides of roadways, please leave them there. Having signage pre-deployed allows staff to quickly and efficiently close roads that become too icy for travel.
- When winter weather is in the forecast, trucks and equipment are prepared and staged for an appropriate response. For larger events, our trucks and equipment is staged on the West and East Hills and in the Valley.



Snow & Ice Response

Department Operating Center

- The Department Operating Center (DOC) is activated in situations requiring emergency response on a large scale. DOC ensures response operations run smoothly and that dispatched crews are effective.
- The DOC is activated when 3 or more trucks are dispatched or actively working in the City for weather response. City staff work in 12-hour shifts which are predetermined so they can be implemented immediately when needed. Once deployed, we are staffed 24/7.
- Experienced snow and ice response staff members operate the DOC to create a forward-looking plan, leading response efforts and coordinating communication with Police, Fire and Emergency Response. The location and condition of equipment, staff and materials are tracked, and traffic cameras are monitored as well as weather conditions.

Response Priorities

- Roadway priority is based on several factors including safety concerns, slope of the hill or grade, average daily traffic volume, and the needs of emergency services.
- During an active widespread response, we position 8 trucks on the East Hill, 3 trucks in the Valley and 5 on the West Hill. Major streets that allow traffic to move through the City and pose a greater hazard to travelers due to steeper terrain are considered primary roadways and are prioritized, followed by secondary roadways and residential roadways which connect to major streets.
- Priority Level 1: Arterial Roads on Hills. These are treated first due to their steep grades and designations as major commuter roads.

◆ S. 208th St.

◆ Canyon Drive

Veterans Drive

Pacific Hwy S

◆ S. 218th St.

• Military Road

• SR 515

◆ S. 272nd St.

• Reiten Road

◆ SE 200th St.

◆ S. 277th St.

• Reith Road

• SE Kent Kangley Rd.

- Priority Level 2: Approaches to Major Intersections. These are treated with next, with one lane in
 each direction on selected major routes. King County and Metro Transit winter storm bus routes
 are cleared as soon as there is a significant lull in the weather event.
- Priority Level 3: Residential Collector Roads. These connect residential areas to arterial roads and may take up to 3 days to complete depending on the severity of the road conditions and whether police, fire or medical services request access assistance.

Notes

- Clearing sidewalks and making safe pathways for pedestrians are the responsibility of the adjacent property owners.
- The City is not able to plow residential streets due to how narrow the roadways are when they are lined with parked vehicles. Our large vehicles have little room to turn around and passage can be hazardous.
- Trucks stay focused on Priority 1 roadways until snowfall accumulation has stopped and they
 have been treated. Trucks then begin focusing on Priority 2 and Priority 3 routes.
- If the snowfall picks back up again, trucks will be pulled back onto Priority 1 routes. Every weather event is different, and every response will be unique. These decisions are examined thoroughly and made with the safety and needs of the community in mind.



Equipment

The City of Kent has a fleet of vehicles that are well-equipped to maintain roads and respond to emergency situations during an inclement weather event.

Vehicles

- 16 trucks equipped with plows
- 14 of the 16 also have sanders
- 2 of the 16 have anti-icer units
- 6 four-wheel-drive light duty trucks
- We keep 70 sets of chains in our site inventory and have local vendor agreements in place if we need more. Our dump trucks have about 30 sets of chains, the Police Department has about 40 and there is a supply of chains held at Kent City Hall.
- Police vehicles are ordered with all-wheel drive, which improves their response capabilities during snow and ice events.

Radio System

• We use the Automatic Vehicle Location (AVL) and Very High Frequency (VHF) system to monitor the location of snowplows and coordinate during an event. The AVL and VHF system are important lines of communication for staff during events and help coordinate response efforts. Drivers communicate road and weather conditions back to the Department Operating Center (DOC).



Materials

Anti-icer, Salt and Sand

We use liquid anti-icer, sand and salt to improve roadway conditions when possible. Kent, Renton and Auburn all use different products for anti-icing, but a universal component in all the compounds is salt, which can be corrosive over time.

You should thoroughly wash your vehicle, **including the bottom/underside of the vehicle**, after an inclement weather event to help prevent corrosion damage.

- We have storage for sand and salt on the East and West Hills and storage for liquid anti-icer in the Valley at the Russell Road Maintenance Facility. We keep 14,000 gallons of liquid anti-icer, 800 tons of rock salt and 3,000 tons of sand on hand.
- **Liquid Anti-Icer** is used to pretreat identified roadways when there is a warning of freezing conditions with no accompanying prediction of precipitation. (see anti-icing route map)
- It needs to be 38 degrees and dropping for application of anti-icer. If the temperature is 39 or above, the anti-icer dissipates and is not effective. Roadway conditions also need to be dry for application.
- After a road surface has liquid anti-icer applied, there are visible lines that appear as strips of pavement that are shiny, maybe darkened and run parallel to the travel lane.
- **Salt** is used to melt snow and ice and aid traction. When spreading material, the truck operator will dispense or apply the material in/near the intersection of the roadway they are treating. The flow of traffic traveling through the intersection tracks the material further away from the intersection.
- **Sand** is used to provide traction on compacted snow and ice. It cannot be applied to roadways when snow is falling since it would just be covered up. Instead, crews plow the accumulating snow. After snowfall stops, sand is applied to damp roadways to assist with traction. Sand is ineffective on dry roadways.

Clean Up

- When the snow starts to turn to slush, the snowplows transition to plowing roadways, starting with priority routes.
- Crews focus on opening curb lines from snow and slush, so melting snow can enter the storm system rather than pooling on the roadway surface.
- Sand applied during an event is primarily removed from roadways with curb and gutter by a contracted street sweeping company. A power broom is used in areas with paved shoulders. Sand is also removed from the storm drainage system by Drainage staff.
- Vactor trucks focus on cleaning catch basins on hills where sand has been applied during a snow and ice event: typically James, Canyon, Reith and Veterans. There are about 300 catch basins total that need immediate cleaning.
- Drainage crews have pre-identified designated routes to observe drainage conditions during the melt. Crews are usually sent out in groups of 2 and we will dispatch 1 truck in the West Hill area, 2-3 trucks to the East Hill and 1-2 in the Valley. Drainage will also stage 2 vactor trucks; one at Wilson Playfields at SE 247th Pl and 132nd Ave SE for flooding response on the East Hill and the other at our vactor site for response in the Valley or West Hill area.
- An after-event meeting is held with response staff to discuss best practices and any lessons learned.

Additional Resources

- Public Works Operations: 253-856-5600
- Cold Weather Shelters: 253-856-5070

Valley Com: For situations where emergency services personnel are needed but there is no danger nor life threatening circumstance occurring at the time, call the Valley Communications Center Non-Emergency line:

253-852-2121

Report abandoned vehicles blocking roadways by calling ValleyCom.

Puget Sound Energy: Safety first. Never touch or go within 35 feet of downed power lines because they might be energized.

Report problems to PSE: 1-888-225-5773

Report an outage: pse.com/outage

View outage map: pse.com/outagemap

- Kent School District Closures and Delays ¹
- Kent Parks Inclement Weather Policy²
- Alert King County ³
- King County Traffic Alerts 4
- King County My Commute 5
- King County Take Winter By Storm ⁶
- WSDOT Traffic Alerts 7
- WA State Traffic & Cameras ⁸
- Winter Weather Ready 9
- American Red Cross Preparing for Emergencies ¹⁰
- CDC Winter Weather Disasters ¹¹
- ICC Winter Safety Resources 12
- National Weather Service 13

¹ https://www.kent.k12.wa.us/Page/10443

² https://www.kentwa.gov/residents/parks-recreation-and-community-services/inclement-weather-policy

³ https://www.kingcounty.gov/depts/emergency-management/alert-king-county.aspx

⁴ https://www.kingcounty.gov/depts/local-services/roads/road-alert.aspx

⁵ https://gismaps.kingcounty.gov/MyCommute/

⁶ https://takewinterbystorm.org/about-us/

⁷https://www.wsdot.com/traffic/trafficalerts/default.aspx?route=l-5&view=MAINWEATHER&action=3

⁸ https://wsdot.com/traffic/?_ga=2.42568677.1187362046.1576204139-229325403.1576204139

⁹ https://www.ready.gov/winter-weather

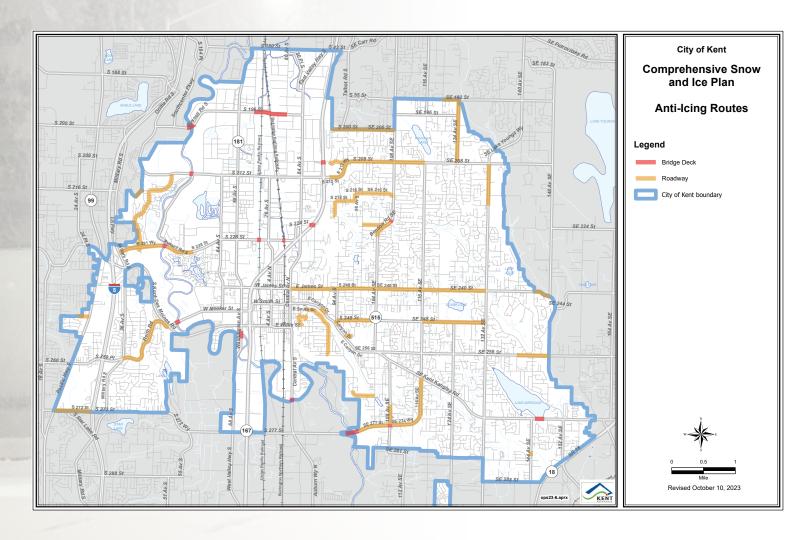
¹⁰ https://www.redcross.org/get-help/how-to-prepare-for-emergencies/typesof-emergencies/winter-storm.html

¹¹ https://www.cdc.gov/disasters/winter/index.html

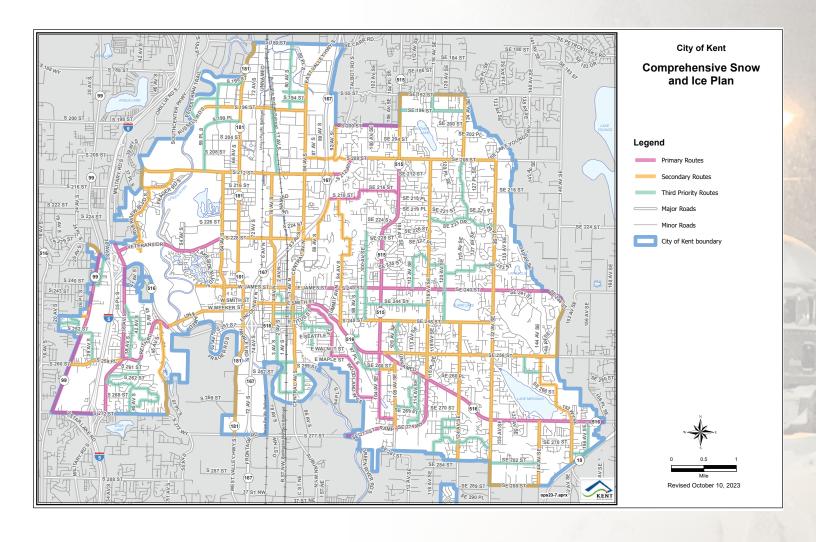
¹² https://www.iccsafe.org/advocacy/safety-toolkits/winter-safety-resources/

¹³ http://www.weather.gov

Anti-Icing



Priority Route Map



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