



Street Sweeping in Various Climates: What to Know

Differences in temperature, moisture and biodiversity create unique challenges for street sweepers. But understanding these differences is essential to a clean and successful municipality regardless of climate, city size or landscape.

Here is a comprehensive guide to effective sweeping techniques across different climates from the team at Elgin Sweeper.

Wet Climates

In climates that experience high rainfall, whether year-round or seasonally, street sweeping is a crucial part of urban planning. It reduces the impact on stormwater by reducing pollution and protecting local water quality.

When not effectively managed, rainfall can be detrimental to infrastructure and public health. As stormwater runs over roads, rooftops and parking lots, it can pick up pollutants. These may include oil, chemicals and other debris that once collected in runoff can enter storm drains and waterways.

Effective street sweeping procedures prevent water contamination. Here are a few tips for areas with high rainfall.

- **Keep an eye on the forecast.** Sweeping is most effective in preventing water contamination when done before major rainfall. If rain is on the horizon, it may be time to take to the streets.
- **Target industrial zones.** Target areas with high pollutant loads, such as industrial zones and busy roadways, to maximize sweeping effectiveness. Maintain a regular sweeping schedule in these areas to prevent pollutants from accumulating and making their way into storm drains.
- **Deploy a clean-up crew.** If a community receives heavy rainfall, sweeping should be completed afterward, with a specific focus on areas where debris is likely to accumulate. This includes the bottom of hills and around storm drains.

In areas of high rainfall, mechanical broom sweepers are most effective in picking up heavy wet debris and can make their way through some standing water. Elgin offers various mechanical broom models including the Broom Bear and Road Wizard, with hopper capacities ranging from 3.6 cubic yards to 8 cubic yards.

Pavement types differ, so utilizing the right sweeper will help increase the success of stormwater management. For example, porous pavement allows water to pass through it, essentially allowing the water to go directly back to the soil and eliminating runoff. For porous pavement, a high-powered, pure vacuum sweeper such as the Elgin Whirlwind1 with a nozzle works best for cleaning.

Cold-Weather Climates

In areas that experience cold weather, the most important use of street sweeping is removing sand, dirt and other debris after snowmelt. While sweeping schedules may need to be adjusted based on forecasts, it is important to keep machines at the ready regardless of weather.

Here are a couple of ways to optimize street sweeping in cold weather climates.

- **Keep an eye on catch basins.** Catch basin cleaning goes hand-in-hand with street sweeping. Catch basins are drainage structures commonly found on streets and sidewalks that channel runoff underground to prevent flooding. As snow melts and water levels rise, the risk of flooding increases, making catch basin cleaning critical.
- **Stay on top of build-up.** Sand, salt, silt and gravel accumulate rapidly during winter weather. This may increase the frequency with which streets require sweeping to prevent safety hazards like slippery conditions and poor visibility of road markings.

For cold climates and areas that experience snowmelt, regenerative air sweepers and pure vacuum sweepers like the Elgin RegenX1 and Whirlwind are best for catch basin cleaning. These models can be equipped with a wandering hose that can lift leaves, silt, sand, gravel and litter out of catch basins.

Dry Climates

While rain can pose a challenge for street sweeping, so can a lack of it. Without rainfall, dust and debris build up rapidly. This can cause health hazards in a community and impede a sweeper's ability to suction effectively.

Here are a few ways to make sure street sweepers are at the top of their game to keep residents happy and healthy in dry climates.

- **Water is a friend.** Spraying water before and after sweeping in dry weather helps keep streets cleaner. Both air and mechanical sweepers come equipped with a water tank and hose that deploy a fine mist as they make their way down the street. To ensure the sweepers' water feature can tackle dust and debris, keep the water tank full, and clean the spray nozzle regularly to prevent blockages caused by buildup.
- **Looks can be deceiving.** In dry areas, there may be less large buildup like leaves or snow accumulation creating a glaring need for street sweeping, but what cannot be seen is dangerous too. Excess dirt, dust and debris can impact air quality as cars and foot traffic stir it up, and eventually, it can impact water quality if it makes its way into storm drains and waterways.
- **Know the surroundings.** While water spray features make sweeping in dry areas a breeze, not everything plays well with water. When sweeping around materials like cement or clay, a waterless system may be more effective.

Vacuum sweepers like the Elgin Whirlwind are a top choice for dry conditions due to their dust control features like a water spray nozzle and extended side brooms. For a waterless option, the Elgin Pelican's dust control system utilizes a dust separator in the hopper and a dust control fan rather than water spray.

Urban Areas

Urban street sweeping keeps community members healthy. Along with improving the aesthetic of a city, sweepers ensure proper stormwater and debris management.

The number of people in larger urban areas can contribute to an increase in debris including litter. Here are some tips to keep urban landscapes functioning at their best.

- **Determine the most effective frequency.** High-traffic urban areas may require more regular sweeping than less-busy areas. In standard municipalities, street sweeping typically takes place bi-weekly or monthly. However, in areas with dense populations, weekly sweeping may be more effective.
- **Consider narrow streets.** Large cities tend to have narrower streets along urban features like bike and walking paths. Street-size restraints may require a more compact sweeper with a small hopper.

Mechanical sweepers are often used in urban areas due to their increased maneuverability. Elgin's Broom Badger is a truck-mounted sweeper with a short wheelbase that can easily make its way through city streets. For particularly narrow streets, the Elgin Pelican is a three-wheeled sweeper with 360-degree visibility to maneuver in compact areas.



In Conclusion

After considering local climate factors, it is essential to develop a routine sweeping schedule. While weather can be unpredictable, **having a plan in place can provide peace of mind** that the health, safety, and beauty of a municipality are protected.

No matter the climate conditions, **a clean, healthy environment is crucial** to the well-being and aesthetics of a municipality. Keep streets cleaner with Elgin.

For more information, visit elginsweeper.com.

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