



**MS4 Permit No. WI-S050075-3**

**Section 2.6.6 Winter Road Management Program**

**March 2023**

**Summary**

The City of Watertown is covered under the Wisconsin Department of Natural Resources' (WDNR) Municipal Separate Storm Sewer System Permit No. WI-S050075-3. The City developed MS4 permit compliance programs after the initial MS4 Permit issuance in 2006. Subsequent permit reissuances have increased the requirements to minimize the amount of pollution that reaches local waterways through urban storm water runoff.

The City of Watertown has implemented a Winter Road Management Program for many years. City staff have evaluated the methods and products over the years to improve public safety, reduce cost, and minimize pollutants flowing toward the local waterways as a result of snowmelt and/or rain events during winter per Section 2.6.6 of the MS4 Permit. The City's Winter Road Management Program is implemented to reduce the overall amount of Chlorides, Total Suspended Solids (TSS), Total Phosphorus (TP) and other pollutants from reaching the Rock River, Silver Creek, Silver Creek Pond, Lake Victoria, Heiden Pond, and other local tributaries and wetlands.

**Program Timelines**

City crews receive salt shipments originating from the Port of Milwaukee and calibrate equipment during the spring, summer and fall. Recent winter road management and salt reduction training sessions have been offered at various times throughout the year, which staff take advantage on as schedules allow.

**Equipment**

Winter maintenance equipment is calibrated annually. Salt is mostly used, with sand occasionally used based on the forecasted precipitation/storm event. The City has a number of hills and problematic intersections which are intentionally addressed on the winter road management route maps. The City began using salt brine in late 2020 as a pilot study to determine the effectiveness and to evaluate whether to invest in additional brine equipment. Brine is being applied directly to streets prior to snow events, to evaluate this approach to minimize the bonding between packed down snow and the pavement. This allows the snow plows to work more effectively, as they are able to remove more snow from the road surface than in past years when the snow would freeze

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to the pavement, requiring additional trips with additional salt after the snow event. A brine tank was set up in the cold storage area of the Main Garage site on First Street. See attached Brine Route Map.

The City maintains approximately 232 lane miles during each winter precipitation event. Multiple small municipal parking lots, including Park & Forestry Department lots, downtown lots, and the Main Garage site on First Street add approximately 3.5 acres of plowing and/or salt application to City crews' operations during winter events. The Watertown Municipal Airport also removes snow from the runways and parking areas of the airport. The Airport follows FAA guidelines and does not use salt due to potential corrosion issues with the airplanes, but occasionally uses sand in the parking areas. This is swept up as soon as possible to minimize any potential impacts to nearby aircraft.

#### **Tracking and Reporting**

The amount of road salt that the city has on hand is tracked on the State of Wisconsin's Road Salt Subsite Inventory form. The amount used for each winter event is tracked along with information on the type of event, the dates and weather conditions. The hours of each operator is also tracked for time sheet and budget purposes. The amount of salt and brine used each winter season is reported in the MS4 Permit Annual Report. For 2019-2020, 3,955 tons of road salt was applied to local roads.

#### **Program Contact**

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