

Powell

— OHIO —

Operations Committee

Tuesday, January 21, 2025



Snow and Ice Control Program

D. Grant Crawford, MPA, Director of Public Service
Loren Hart, Public Service Foreman

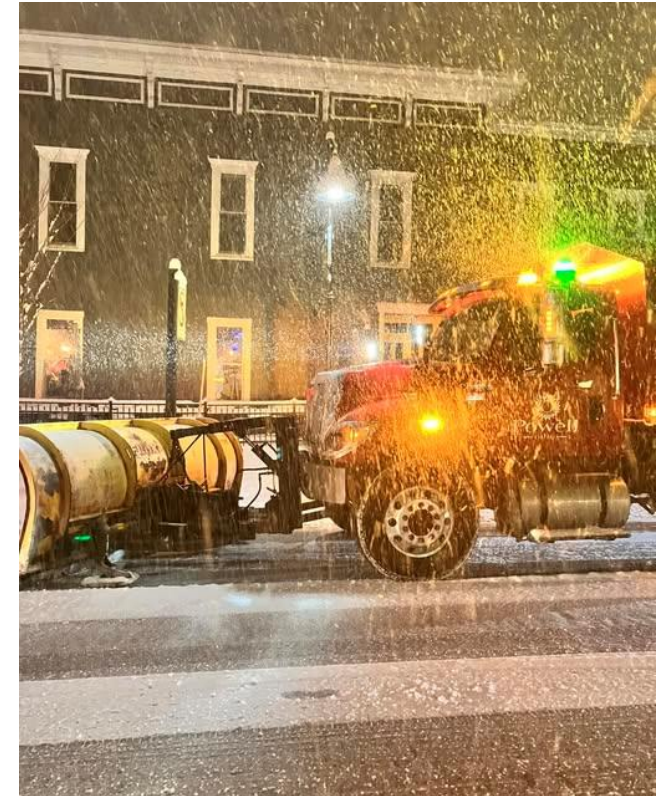


Snow and Ice Policy Overview

Mission: The City of Powell is committed to the safety of its residents, businesses, and visitors, as well as delivering the highest quality of service possible while balancing responsible use of the taxpayers' funds. In keeping with these principles, Powell established its snow removal policy to help ensure that the roads throughout Powell are cleared in a safe, logical, and fiscally responsible manner.

Agenda:

- Street designations
- Priority Procedure
- Response Framework
- Districts and Staff
- Salt
- Equipment





Snow and Ice Policy Street Designations

Every street in Powell is placed into one of four categories. Many factors are taken into consideration when categorizing each street, including usage, access and, above all, safety. The category determines when and how streets are treated and cleared. The four categories included:

- **Arterial:** main streets that experience the most traffic volume and are essential to maintaining traffic flow through the city (ie: Sawmill Pkwy, E/W Olentangy St, N/S Liberty St)
- **Collector:** streets that lead to arterial streets (ie: Presidential Pkwy, Village Club Dr, Verona Dr, Retreat Ln)
- **Residential Street:** neighborhood streets that lead to a collector (ie: Pine Bank Dr, Wilbrook Dr, Cardinal Hill Ln, Whitaker Ave)
- **Court:** cul-de-sacs (may or may not lead to collector streets)



Snow and Ice Policy Priority Procedure

Powell's Accelerated Priority List

1. Arterial, Collector
2. Residential, Courts

Typical Priority List

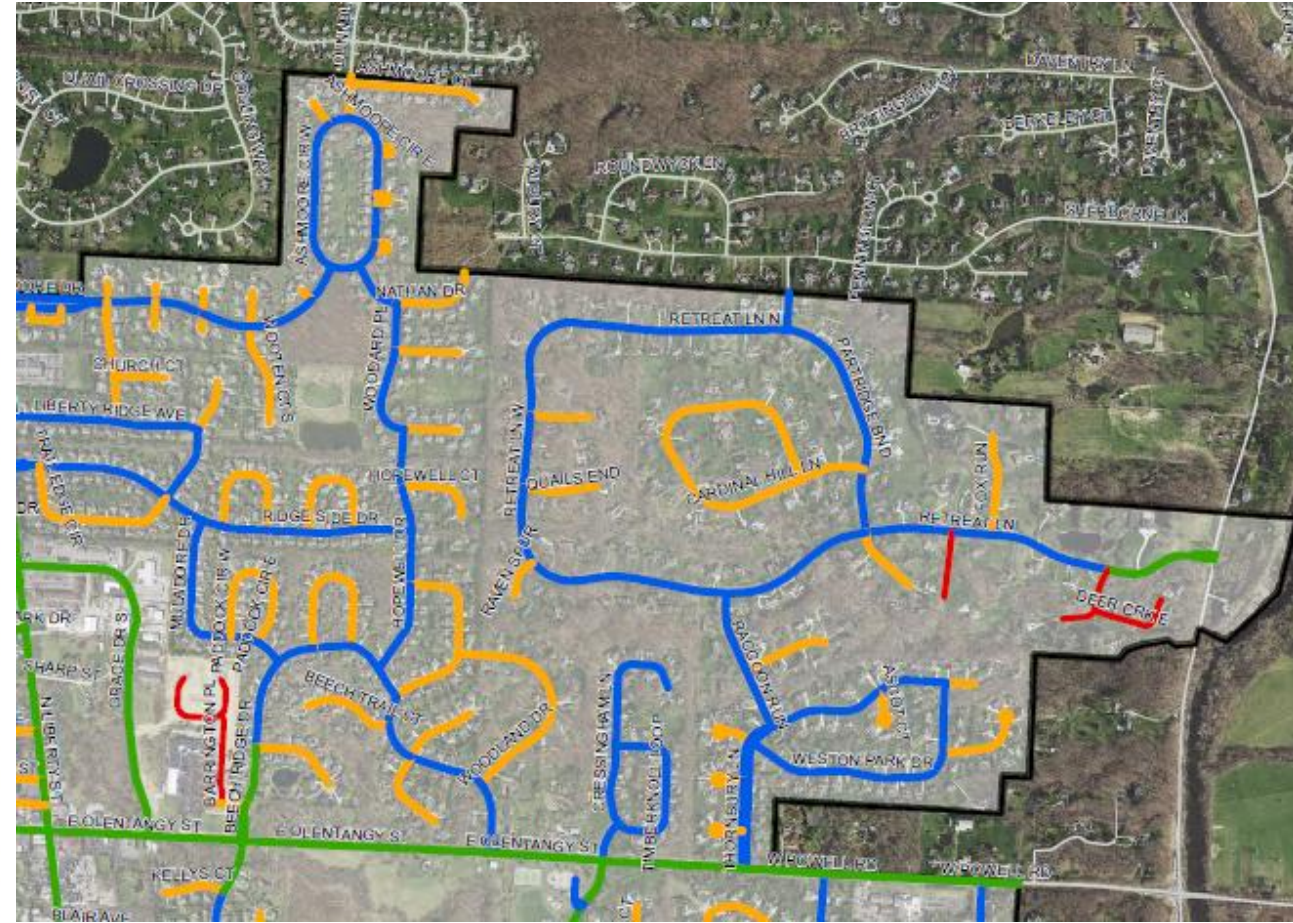
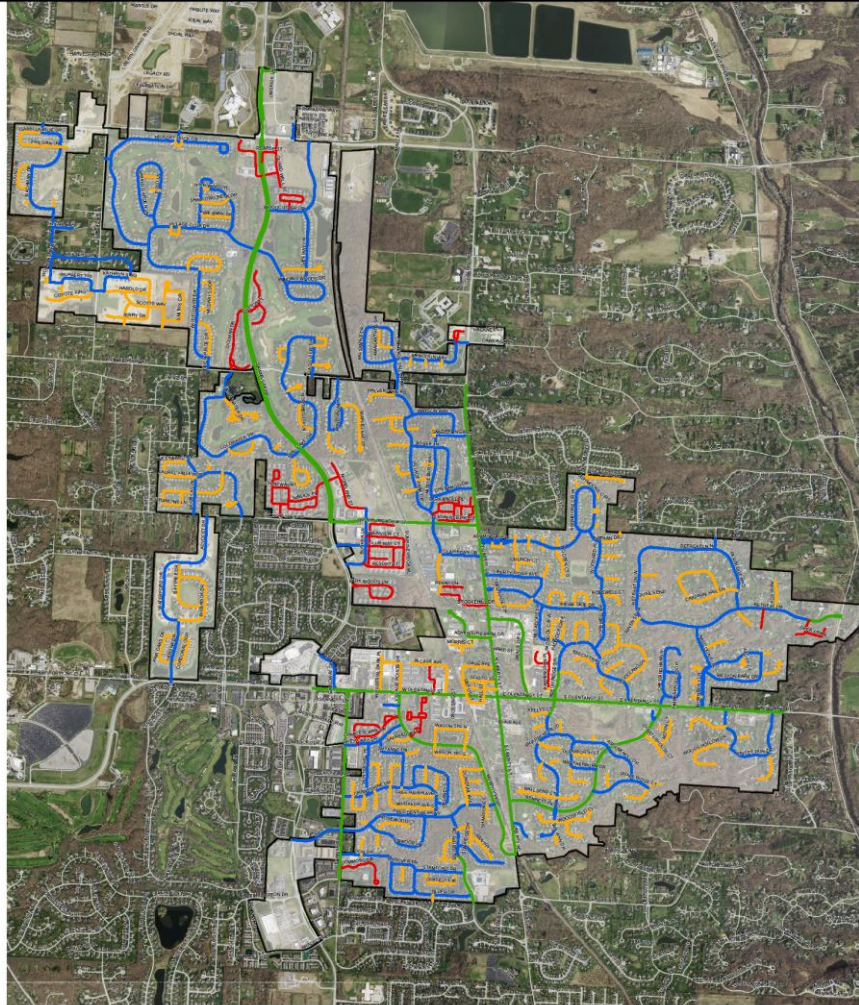
1. Arterial
2. Collector
3. Residential
4. Courts



Powell Snow Routes

Public Service Department 47 Hall St, Powell, Ohio 43065 (614) 885 5380 cityofpowell.us

As of December 20, 2022



- ARTERIAL
- COLLECTOR
- RESIDENTIAL/COURTS
- PRIVATE ROADS
- POWELL BOUNDARY





Snow and Ice Policy

General Response Framework by event type:

*Subject to change based on current and future conditions

Arterial and Collector

- 1" or less = Salt, Pre-treat
- 1" to 3" = Plow, Salt, Pre-treat
- 3" or more = Plow, Salt, Pre-treat
- Ice = Salt

Residential and Court

- 1" or less = Salt, Pre-treat - as needed
- 1" to 3" = Plow, Salt, Pre-treat (2 pass court loop)
- 3" or more = Plow, Salt, Pre-treat (entire court loop)
- Ice = Salt



Snow and Ice Policy

General Response Framework by event type:

*Subject to change based on current and future conditions

Current

Light event:

- After Hours= 4 staff
- Duration= 2-3 hours
- During business= 4-8 staff
- Duration= 2-3 hours

Heavy Event:

- (2) 12-hour shifts of 4 staff starting at 1-hour before the event begins
- 8 hours to plow all streets after arterial/collector are complete

Pretreat: Yes (based on event)

Pre-2022

Light event:

- After Hours= 1 or 2 staff
- Duration= 4-6 hours
- During business= 2-4 staff
- Duration= 2-3 hours

Heavy Event:

- (2) 12-hour shifts of 4 staff starting at 12a/12p regardless of event timing
- ~8 hours to plow all streets after arterial/collector are complete

Pretreat: No



Snow and Ice Policy Districts and Staff Stats

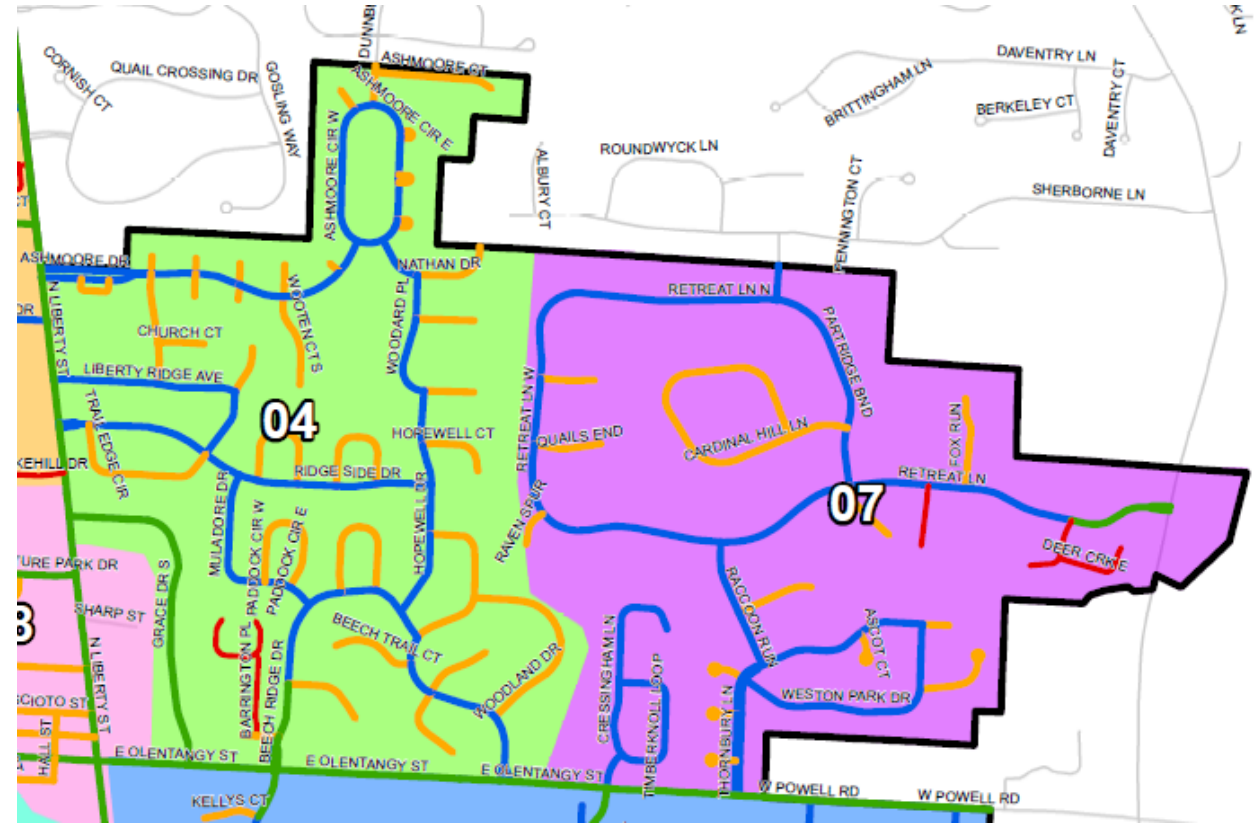
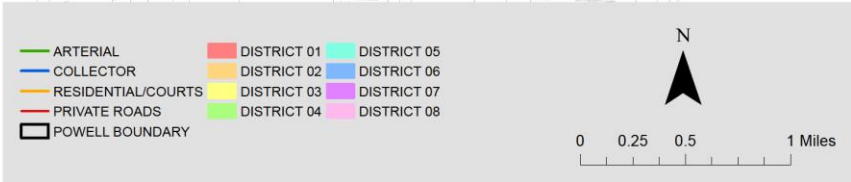
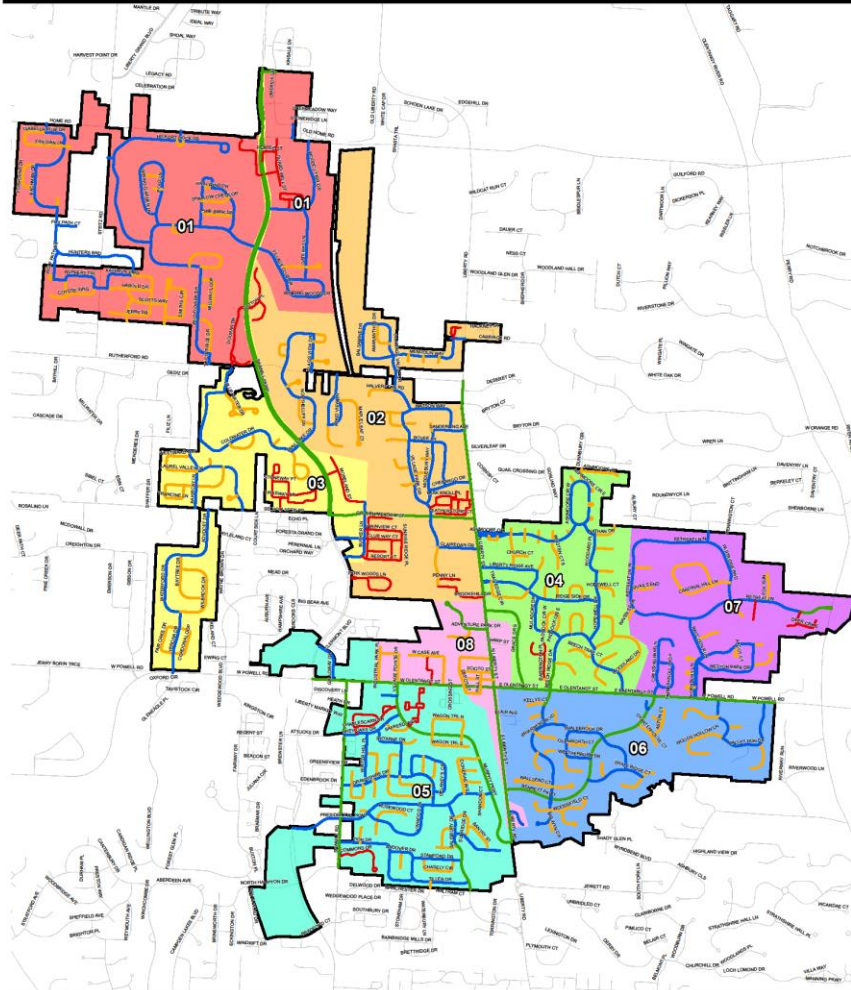
- 130 Lane Miles of roadway
- 8 total districts
- 8 districts combined to 4 routes when on shifts
- Total Lane Miles Per Operator: ~35 Miles
- Typical/Standard Lane Miles/Operator: ~15-20 Miles
- Other Cities pull in support crews: Utilities, Parks, Fleet, Facilities, etc.





Powell Snow Routes

Public Service Department 47 Hall St, Powell, Ohio 43065 (614) 885 5380 cityofpowell.us
As of December 20, 2022





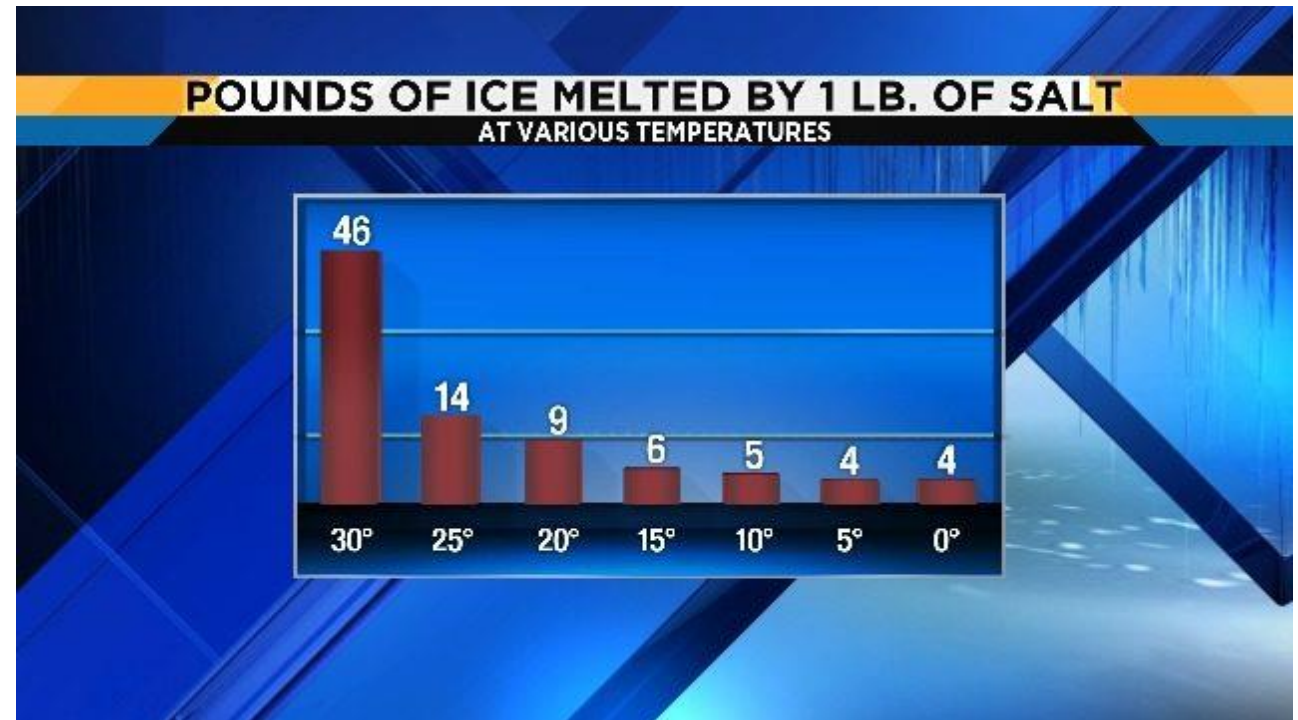
Snow and Ice Policy

Road Salt

Temperature Effectiveness

Effectiveness Range:

- Down to 20°F: Road salt works effectively to prevent/break down ice formation.
- At temperatures below 20°F, salt is significantly less effective.
- At temperatures below 15°F, salt is not effective without daytime sun.
- NEW 2025: Began using ClearLane Salt as available. Works down to 0°F.
 - Limited availability
 - Premium pricing
 - Requires protection from elements





Snow and Ice Policy

Road Salt

Supplied through SWOP4G Coop

- Salt is mined from underneath Lake Erie
- Only able to purchase through SWOP4G due to limited storage

Current Storage

- Have: ~400 tons storage (1-2 storms)
- Need: ~1200 tons storage
- This year: Completely ran out twice

2025 Initiatives

- Intergovernmental relationship: Borrowed ~30 tones from Delaware County
- ClearLane Increased effectiveness by 20-30% when available
- Failed Salt Dome roof replacement/expansion – ClearSpan Fabric
- Salt Brine Pre-treatment system ordered





Snow and Ice Policy Equipment

- **3 Full-Size Salt/Plow Trucks**
 - (2) New 2024 with modern controls
 - (1) 12 year old due for replacement
- **3 Reduced Size Salt/Plow Trucks**
 - Purchased 2018-2021
 - Not equipped/designed for our roads
 - Limited functionality
 - Prone to damage
- **NEW 2025**
 - Replace the 12 year old full-size truck
 - Ordered brine tank to be installed on decommissioned full-size truck

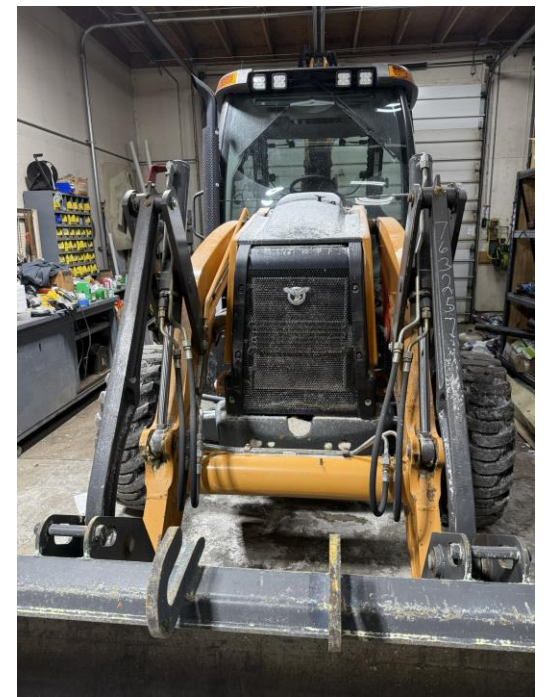




Snow and Ice Policy Equipment

Pre/Post Preparation

- Clean, Clean, Clean
- Replace plow blades
- Repair/replace hydraulic fittings
- Grease/lube fittings
- Replace auger and spinner motors
- Replace bearings
- General Maintenance



Questions

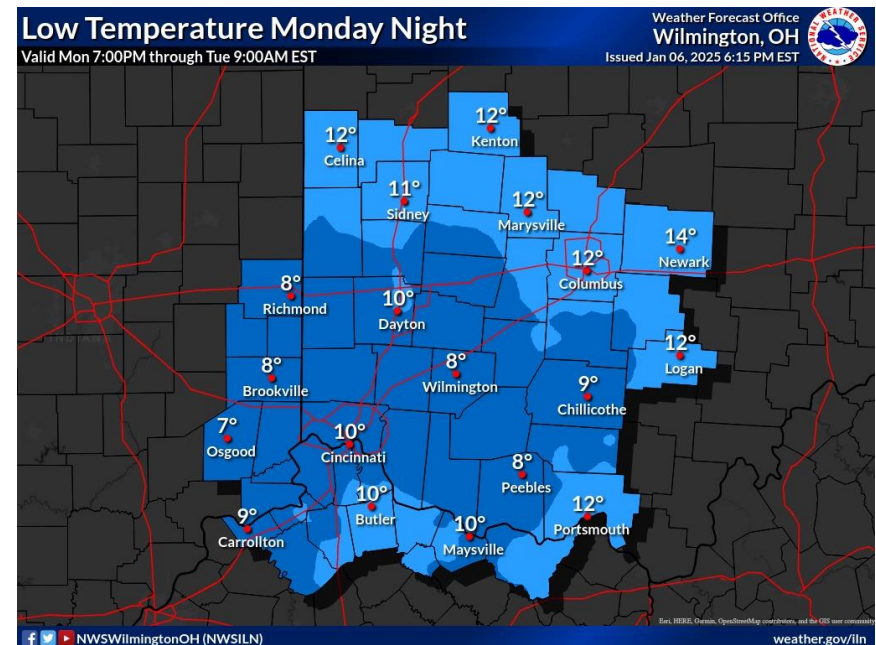
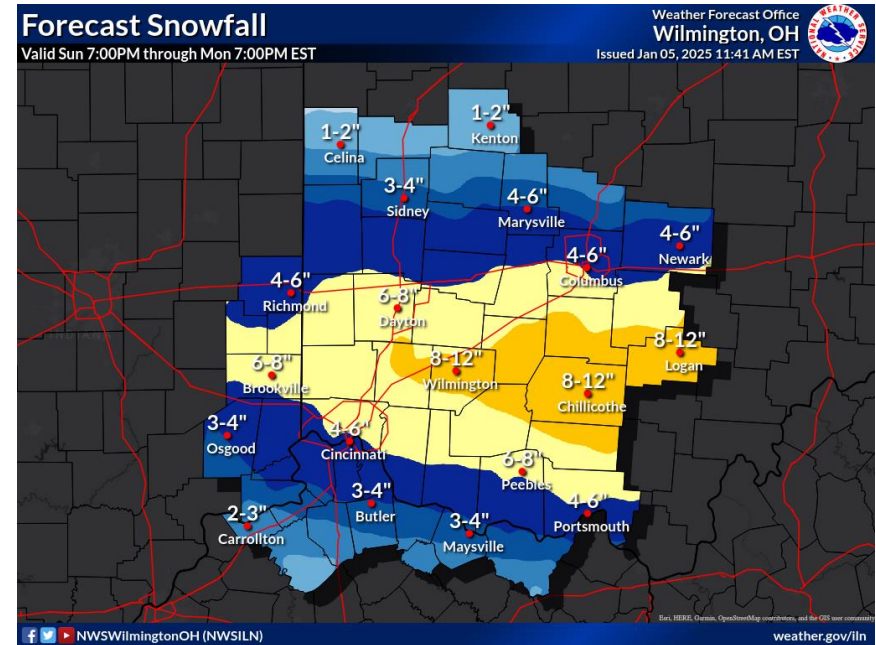




Snow and Ice Policy 1/05/25 Event Recap

Event Stats

- ~5" of snow
- Snow Began: 1/5/25 at 10pm
- Snow Ended: 1/6/25 at 2pm
 - 4 hours of daylight left
- Snow Duration: 16 hours
- Temperature Day: Upper Teens
- Temperature Night: Low Teens
- Future Temps: Teens
- (2) 12-hour shifts
 - (1/5/25 at 10pm to 1/6/25 at 10pm)
- Additional street cleaning 1/7/25 and 1/8/25





Snow and Ice Policy

1/05/25 Event Recap

Timeline (before event)

- Salt Bins filled
- 12/31/24 Monitoring Forecast
- 1/2/25 PreOrdered Salt (for 1/3 event)
- 1/3/25
 - 3am - 1" Snow Event
 - Pre-Ordered More Salt (for 1/5 event)
 - Pretreat all roads
 - Pre-loaded all trucks
 - Made truck repairs
- Salt Orders

• 1/2/25	1/9/25
• 1/3/25 x2	1/13/25
• 1/7/25	1/14/25

Timeline (during event)

- 1/5 10p – 12-hour shift begins (Crew 1)
- 1/6
 - 10a – Crew 1 relieved. Crew 2 begins
 - 11a – Truck 103 down (down 3 guys for 3 hrs)
 - 11:30a – Truck 106 down (1 guy for 1 hrs)
 - 2p – Snow ends
 - 3p – Arterial and Collectors treated
 - 10p – All residential and courts treated. Shift ends due to temps. OUT OF SALT
- 1/7 – 7a All Crews return to cleanup
 - Salt> melt> plow> salt> melt> plow> salt
 - Borrowed Salt from County
- 1/8 – All cleanup is complete. 1/2/25 salt arrives
- 1/13 - The remainder of the salt arrives