

Public Works Snow & Ice Operations

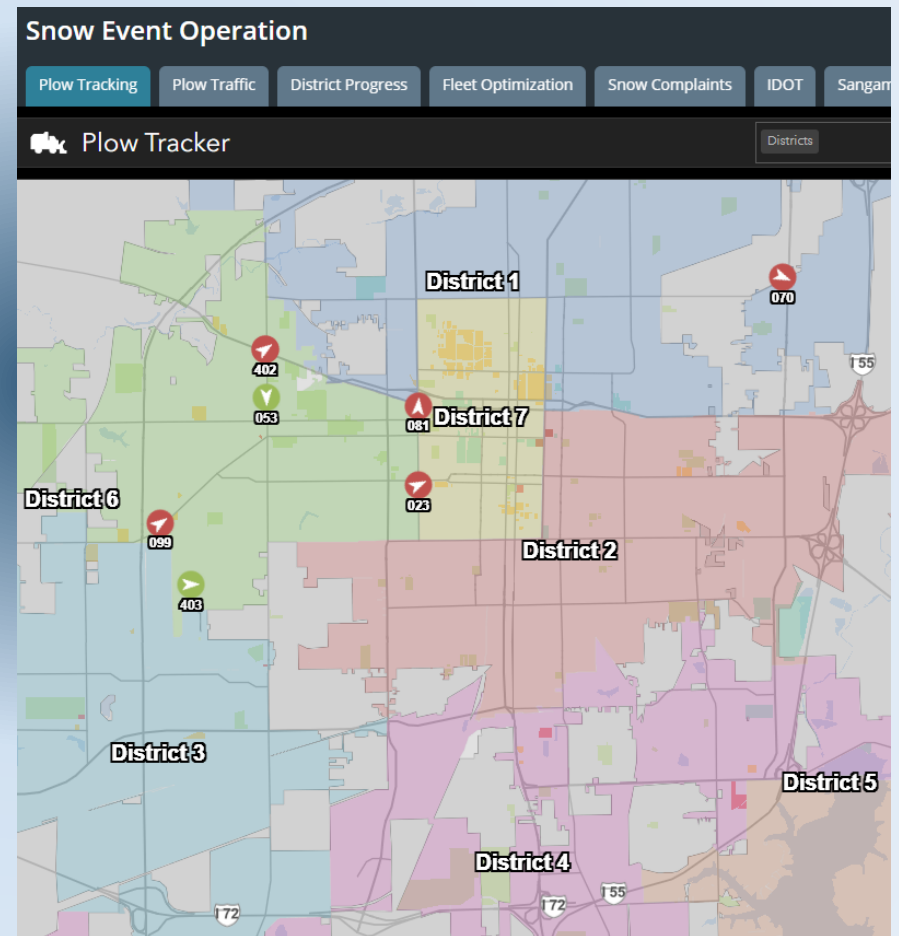
Mayor James O. Langfelder

Nathan Bottom, Director



WINTER MISSION FOR PUBLIC WORKS

- ▶ Monitor winter conditions on 1,450 lane miles
- ▶ Evaluate & initiate necessary treatment of roadway to effectively & efficiently improve conditions
- ▶ Oversee, adjust & manage completion of operations to address conditions



CONTINUOUS IMPROVEMENT

- ▶ Optimized snow routes based upon:
 - ▶ ADT
 - ▶ Critical Facility
 - ▶ Slope
 - ▶ Crash Data
 - ▶ Surface Material
 - ▶ Bus Routes
- ▶ Balanced snow streets and districts
 - 2 larger planning meetings
 - Dry run
 - Smaller working group meetings

Team Effort

TYPES OF STREETS

- ▶ Primary Streets & Trouble Spots (*610 lane miles*)
- ▶ Secondary (Event Specific) Streets (*140 lane miles*)
- ▶ Secondary (Plow Only) Streets (*700 lane miles*)
- ▶ Downtown Sidewalks

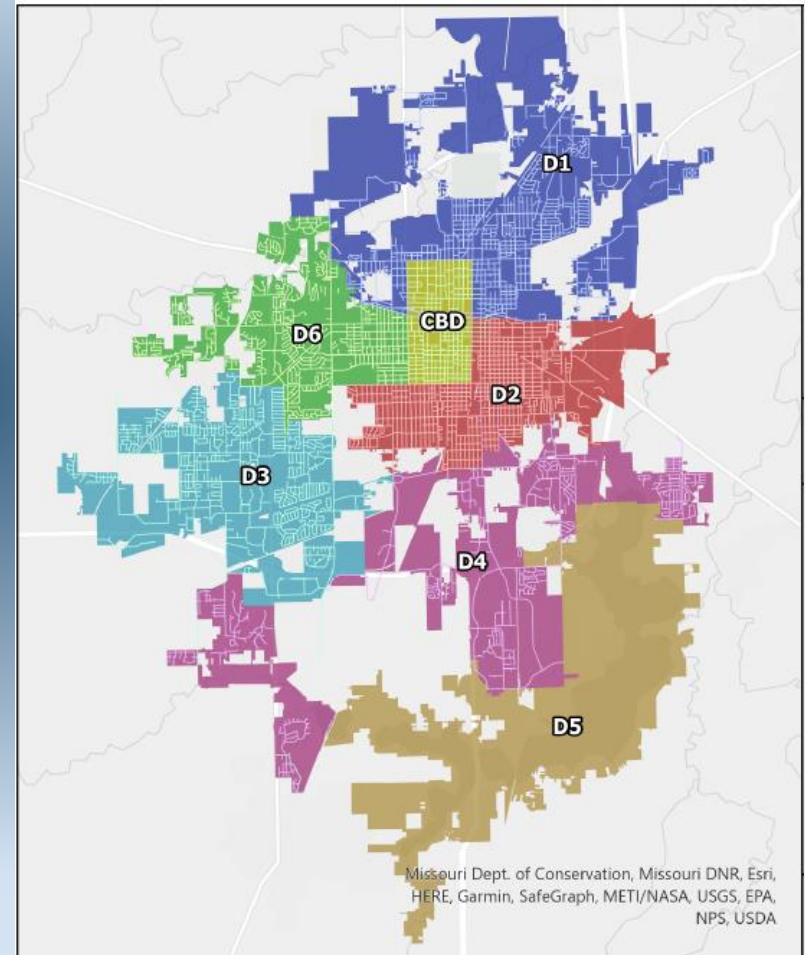


RESOURCES

- ▶ 100 P.W. employees participate in operations
- ▶ 47 pieces of equipment (snow plows, heavy equipment, and light trucks)
- ▶ Lake Services (18–20 employees & 10 pieces of equipment)
- ▶ CWLP Water (3–5 employees & 5 pieces of equipment large events)
- ▶ Range of 3,000 to 9,000 tons of salt.
Two salt locations (East & West)
- ▶ May utilize contractors for major snow event
- ▶ \$200,000 to \$1,000,000 expense range during snow season

OPERATIONAL APPROACH

- ▶ Pre-planning hottest day of year
- ▶ Snow Fences
- ▶ Pretreatment (Expanded)
- ▶ Early & Continuous Monitoring (Weather Sentry)
- ▶ Pre-Load Trucks
- ▶ Determine Appropriate Operational Approach
- ▶ Operational Management & Execution (Cityworks & AVL)
- ▶ Post Event Evaluation



CHALLENGES

- ▶ Type of Event
- ▶ Timing
- ▶ Temperature
- ▶ Equipment & Personnel



CONCLUSION

- ▶ L.O.S. Vary Based on Event
- ▶ Conditions Limit L.O.S.
- ▶ Objective Based & APWA BMP



- ▶ Snow & Ice Removal Info: <https://www.springfield.il.us/Departments/PublicWorks/snowRemoval.aspx>