2019 WEATHER IMPACTS

Public Works Agency Update

Edgar Cano
Public Services Bureau Chief
David Stoneback
Director of Public Works

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2018/19 SEASON SNOW STATISTICS

Monthly Snow And Ice Totals From 10/01/2018 To 02/18/2019 (In Inches)

2020 Asbury Ave, Evanston, IL 60201, USA
JANUARY 2019 SNOW STATISTICS

• 21 days with at least a trace of snow
• Total snow accumulation was 24.2 inches
• Average snow accumulation is 10.8 inches
• Total Ice accumulation was 0.15 inch
• 2 events with 6 or more inches of snow
• 2 events with parking restrictions
• Polar Vortex
JANUARY 2019 SNOW STATISTICS

• Overtime hours charged to snow account
  • 4,835 hours by PWA, Fleet Services, and Parking Enforcement employees ($284,843)
  • 690 hours by Police employees ($47,395)
• 3,678 Tons of salt used ($236,180)
• 62,476 Gallons of brine used ($4,998)
• 7,335 Gallons of blend used ($10,856)
JANUARY 2019 SNOW STATISTICS

• Snow Route/Emergency - Totals
  • Total # of vehicles towed/relocated- 1,050
  • Total # of citations issued by EPD- 1,106
  • Total # of citations issued by PEO- 2,278
• Snow Route parking bans (Night)
  • 226 tows
  • 249 tickets
• Snow Emergency (Day)
  • 824 tows/relocations
  • 3,135 tickets
2019 WINTER IMPACTS

• Operational issues
  • Multiday storms
    • Overtime
    • Deicing material usage
  • Historic cold temperatures
    • Effectiveness of material
    • Effect on vehicles
    • Effect on Comed customers
    • Tree issues
    • Potholes
    • Water mains
• Vehicle Maintenance
  • Age and condition of fleet
TREE ISSUES

- Tree/leaves issues
  - Frost Cracks
  - Weight on limbs
  - Leaves on streets and alleys
2019 WINTER IMPACTS

- Public perception issues
  - Snow onto parkway/driveways/crosswalks
    - unavoidable
    - Shovel onto parkway not street/downstream
    - Wait until end of storm operations to clean up
  - Direction of plows
    - Factors-
      - Wind direction
      - windrows
  - City does not plow or salt alleys
  - Do not expect street to be clean as soon as precipitation ends
  - Business district cleanup
    - Courtesy path
    - Noise
2019 WINTER IMPACTS

• Public Assistance
  • Clear around refuse carts and dumpsters to allow access to receptacles
  • Clear around fire hydrants
  • Clear around drainage structures
  • Maintain sidewalks
  • Do not push or place any snow from private property onto streets, walkways, alleys
  • Park close to curb as possible to allow snow and ice vehicles down a block
2019 WINTER IMPACTS

• The jet stream—a powerful river of wind high in the atmosphere—shapes the Northern Hemisphere's weather, including bitter cold snaps.

• Warmer temperatures and less sea ice caused by climate change can contribute to a “wavy” jet stream, allowing frigid artic temperatures to reach farther south than normal.

• Climate change may lead to more frequent polar vortex conditions
The Science Behind the Polar Vortex

The polar vortex is a large area of low pressure and cold air surrounding the Earth’s North and South poles. The term vortex refers to the counterclockwise flow of air that helps keep the colder air close to the poles (left globe). Often during winter in the Northern Hemisphere, the polar vortex will become less stable and expand, sending cold Arctic air southward over the United States with the jet stream (right globe). The polar vortex is nothing new — in fact, it's thought that the term first appeared in an 1853 issue of E. Littell's *Living Age*.

Air pressure and winds around the Arctic switch between these two phases (Arctic Oscillation) and contribute to winter weather patterns.
2019 WINTER IMPACTS

• The polar vortex is a good example of an unanticipated climate hazard
• As the climate changes it will be increasingly important to understand how Evanston’s systems respond
• Different infrastructure may need additional investment based on how resilient it is
POLAR VORTEX ACTIONS

CMO / COMMUNITY ENGAGEMENT

• eNewsletter, Facebook, Twitter & Website
• Conference calls with Directors and Managers
• Status updates to staff, aldermen and media
POLAR VORTEX ACTIONS

COMMUNITY DEVELOPMENT DEPARTMENT

Prior to Polar Vortex:

- 36 inspections rescheduled. All inspections were complete by Monday, February 4.
- Business district visits by staff to confirm snow removal; additional communications through Evanston Edge newsletters, social media, and direct contacts

During Polar Vortex:

- Maintained communications to Permit Desk customers
- Communicated with CTA, Metra, Pace on service and equipment status
- Responded to two calls from the Fire Department regarding pipe breaks and possible impact to electrical systems. Equipment was inspected on Friday, February 1

After Polar Vortex:

- Accelerated schedule to complete meeting materials and packet preparation for CD and City Council meetings
- Follow-up with CTA, Metra, and UP on infrastructure condition
POLAR VORTEX ACTIONS

• Facilities & Fleet Services
  • 24 hour operations
  • Building inspections
  • Gas pump issues
  • Snow equipment repairs
  • Assistance at Dobson Nursing Home during power outage
POLAR VORTEX ACTIONS

• Fire Department
  • 5 extra members on each shift
  • Extra squad and ambulance placed in service
  • Responded to 225 incidents
    • 50 frozen or broken pipes
    • No heat concerns
    • EMS calls
POLAR VORTEX ACTIONS

• Parks, Recreation & Community Services
  • Levy and Fleetwood were open
    Wednesday
      • 10 seniors and 10 children at Levy
      • 25 children at Fleetwood
    Thursday
      • 25 seniors and 10 children at Levy
      • 40 children at Fleetwood
POLAR VORTEX ACTIONS

• POLICE DEPARTMENT
  • Assisted with well being checks at properties without power due to ComEd power outages
POLAR VORTEX CONSEQUENCES

• POWER OUTAGES

January 30
1,638 customers for 124 minutes
64 customers for 230 minutes
3,926 customers for 6 minutes
84 customers for 100 minutes
55 customers for 282 minutes

January 31
82 customers for 283 minutes
1 customer for 154 minutes
1 customer for 75 minutes
JANUARY 2019 SNOW STATISTICS

- Leaves
- Dumpsters
- Mounds
ORDINANCE RECOMMENDATIONS

• Code modifications/additions
  • Leaves onto Street or alley
  • Snow from private property onto Public R.O.W or other private property
    • Do not push or place any snow from private property onto streets, walkways, alleys
  • Clearing of sidewalks after 4 inch snowfall/accumulation
  • Cart/Dumpster accessibility
    • Clear around refuse carts and dumpsters to allow access to receptacles
QUESTIONS?