

Public Official's Interviews and Comments

Prior to January 1, 2002, all outgoing Council Members, re-elected Council Members and the outgoing Mayor were invited to be interviewed regarding snow emergency activities. After January 1, 2002, the newly elected Council Members were invited to be interviewed.

A total of three outgoing Council Members were interviewed, 6 re-elected Council Members and 6 newly elected Council Members, and the outgoing Mayor were interviewed. A number of the Council Members and the newly elected Mayor attended some of the Neighborhood Informational meetings. The outgoing City Coordinator was also interviewed.

During the Interviews, the public officials were asked the following questions:

- What issues are important to you and your constituencies regarding the current snow emergency parking restrictions and parking procedures?
- What are your expectations for level of service in the future?

The most often repeated comments were:

- Alley plowing should be improved
- Windrows at intersections are a problem
- Snow plowed into driveways is a problem
- We need to tow more – violating vehicles are a problem and generate many complaints

Many additional comments were received during these interviews and these are summarized in the following categories:

Miscellaneous Issues

- Special service districts are a positive
- north part of town thinks south gets plowed first
- south part of town thinks north gets plowed first
- very few complaints
- people are satisfied with level of service
- doing sidewalks is an issue
- PW does a great job
- who gets plowed first
- get information to CM about 24 hr so they can decide once and for all
- we should be the best at snow plowing
- it is very positive that this study is being conducted
- perception of inequity of who gets tagged, towed, and plowed first
- can we customize for parts of the City or would it be too confusing
- need curb to curb plowing

- snow is plowed onto sidewalks
- how can we reduce the cost of snow emergencies - call fewer snow emergencies
- snowplowing is good in Mpls.
- Salt is destructive to vehicles
- a lot of compliments regarding snow removal in Mpls.
- Too much sign clutter
- we have B+ snow plowing, do we want A for a cost
- map the density of vehicles in City
- sequence of tagging, towing, plowing is important - plows get ahead of taggers

Alleys, Driveways, Windrows, and Corner Cleaning

- complaints from seniors regarding snow dumped into driveway
- alleys get done quickly
- continue good alley service
- windrows at corners and bus stops are a problem
- corner cleaning is important
- driveways plowed in is a problem
- lake at end of alleys
- ends of alleys get plowed in
- doing the alleys first is good
- ruts in alleys
- ice ridges in alleys
- impressed with alley plowing

Parking Issues

- off-street parking is adequate
- off-street parking is inadequate
- no parking is available
- do public/private parking - "neighborhood friendly snow emergency lot"
- co-share parking with other lots
- garages are full - do a "clean the garage day"
- where do they move their cars
- not interested in a change in plowing, more a change in parking
- one-side parking ban is good - easy to understand - residents like it

Enforcement, Tagging and Towing

- more complaints re snowbird vehicles than any other issue
- believe residents would pay a larger ticket rather than go to the Impound Lot
- balance enforcement equitably throughout the City
- angry residents about car being towed
- angry residents about cars not being towed

- could do tow around the block
- tow around corner is ok
- tow around the block
- tow around corner is a logistical nightmare
- if snowing - get your car off the street - if they don't move then tow them
- the pain of a tow and fine is way out of line for the benefit of better plowing
- residents must be responsible
- residents hate snowbird vehicles
- reduce the aggravation of being towed
- do tow operators tow closest to their office and closest to the Impound Lot
- too many cars towed in their ward
- towing is punitive, make it proactive to change behavior
- need faster service at the Impound Lot
- tag and tow more

Complexity, Communication, and Confusion of the Current System

- confusion is the biggest issue
- existing system complicated
- new residents do not know what a snow emergency is
- how do you know it is a snow emergency route
- need better multi-lingual communication
- too complex a system to communicate
- people don't know about snow emergencies – break through that communication gap
- communication is too complex, need to simplify the message
- use other communication networks and methods
- need more effective communication - different methods
- apartment managers can tell residents about snow emergency
- personalize message “your car may be towed”
- communicate to drivers from outside the City
- communicate in a clear manner
- too confusing of a system

Quality vs. Speed vs. Cost

- prefer quality vs. speed
- quality more important than speed
- quicker plowing is a plus - identify the impacts
- faster plowing is better
- no large clamor for 24 hr
- not a lot of calls for faster snow removal
- can't see a 24 hr if additional cost
- concern about cost of 24 hr vs. value-added
- do not hear a lot of demand for 24 hr unless substantially better
- not a strong demand for 24 hr unless higher quality

- faster is better if quality is there
- need quality, timing, and faster
- if existing plan is good - no need to change
- get snow off streets quicker
- current plan works
- other wards may want 24hr - my ward does not
- quality issues with current system
- need to see a city-wide plan make sense before we change current system

Neighborhood Informational Meetings and Citizen's Comments

A series of four Neighborhood Informational Meetings were conducted to reach out to neighborhood residents and businesses to discuss the potential impacts of a 24-hour alternative and to receive comments from the residents and businesses. The four meetings were:

1. Folwell Community Center – March 26
2. Logan Park Community Center – March 28
3. Longfellow Community Center – April 2
4. Painter Park – April 4

Many comments included concerns about alley plowing, windrows and driveways. communication of snow emergency information was an important issue.

The major comments from each of the meetings are as follows:

Citizen comments from Neighborhood Meeting #1

1. City doesn't tow fast enough
2. More important to have a uniform system instead of odd-even
3. Increase parking ticket up to \$500
4. Could use Church lots for off-street parking if city plowed them
5. Work through neighborhood organizations to communicate
6. Signs on cars in multiple languages
7. Use Freeway boards to communicate
8. I did not know odd-even side switched each year – you need to communicate
9. Snow emergency signs to block club leaders to post in yard
10. Give snow emergency information with vehicle license tab renewals
11. Repeat alley plowing
12. Make citizens clean their own alley windrow
13. Allow parking after plow goes through a street once

14. More info in literature about where to park
15. Put info about where to park in e-mail instead of referring to website
16. Don't sacrifice quality for time

Citizen comments from Neighborhood Meeting #2

1. Our street didn't get ticketed – even after calling the city (Philips, no garages)
2. Get plowed in at S. 9th street and no ticket and towing enforcement
3. near 1504 4th street, need some initiative for off street parking
4. Have rental licenses require off-street parking
5. Encourage garage use
6. Increase fine for repeat offenders of parking violations
7. Let on-duty neighborhood cops write tickets
8. Create a limit for the number of cars per residential unit
9. Use Municipal parking ramps and small vacant lots during a snow emergency
10. Need better alley plowing to get to garage
11. Keep blades on ground, plow correctly in the alleys
12. Go back to city staff plowing the alleys instead of private contractors
13. The reverse crown in alleys causes plowing problems
14. We don't get plowed
15. Alley is a priority
16. Some of the concrete sections in alleys float and cause plowing problems
17. Fine people who throw snow in the ROW
18. Clear corners when we call in
19. Clear bridge sidewalks
20. Level undesirable houses and allow off-street parking on the lots
21. Do shared parking with commercial lots by using a parking permit
22. Use Critical Parking Areas to protect residents ability to park near homes
23. Increase fine for tow around block
24. Tow to nearest off street parking lot
25. Tow around block helps the violators
26. Raise ticket and tow price
27. Will 24-hour plowing be curb to curb? Emergency vehicles need to get through
28. Plow quicker, dump windrow on sidewalk, then the City should plow sidewalks

29. Get more people to write tickets – on-duty police
30. In favor of spending more \$ to staff the snow emergency effort
31. One side parking ban was hell
32. Change state law on towing fines to allow increase of fines
33. I could not comply with 24 hour plan parking restrictions
34. Use a sensor light on sign to tell residents when a snow emergency is in force (need to protect from vandals)
35. Use positive phrasing on signs – such as “parking allowed here” – “Okay to park” signs
36. City should be parking friendly
37. Expensive to be a tow truck driver – lower fee
38. Use multiple impound lots instead of one impound lot
39. Make U of M and Augsburg accountable for parking problems because of their students
40. Use “in-house” towing
41. not getting violators in our block
42. Residents could volunteer to plow the street after snowbird vehicles move

Citizen comments from Neighborhood Meeting #3

1. 348–Snow is overwhelmed and does not answer at times
2. Website has been down
3. Maintain quality in Mpls. (do not be like St. Paul)
4. Continue curb to curb and multiple passes
5. Mpls goes down a street 3 times
6. St. Paul does not do a good job of plowing
7. How many signs will be placed on a block
8. Neighborhoods may resist signage
9. The more signs the better – they are important
10. If we don’t get more compliance, we are St. Paul
11. Buffalo uses tow around the block but has different density and public transit
12. Where do you move cars to in the wedge?
13. Tow around the block creates a car theft problem – where is my vehicle?
14. Plow fills driveways and handicap areas and pedestrian access – responsibility should be to not plow people in

15. 24 hour – you would only shovel out once
16. Intersection ridges high
17. Plowing out of corners is not high quality
18. Publicize number to call for PW service
19. Liability issues in private lots if use co-share lots
20. Concern for abandoned vehicles in co-share lots
21. They have existing use for the parking lots, cannot fit anything else in
22. Worth investigating co-share in tightest parking areas if other cities using this technique
23. Run buses to impound lot
24. Include info in ticket about where the impound lot is and what buses go there
25. OK to increase ticket price but may not increase compliance
26. Media does a disservice by making jokes and not conveying info
27. The City web site is good for snow information
28. Should plow the alley even if the snow will melt in a week, we still need to get into the alley
29. Size of handicap transfer zones takes away curb parking
30. Co-shared parking can be difficult – people could misuse it
31. Not a preference for off-street co-share parking
32. Do not do off-street co-share parking – too many logistics issues
33. City should be held to plowing in 24 hours, same as they hold residents to for sidewalks
34. Congrats to PW for adding alley plowing – it is a great improvement
35. Citizens should take responsibility during snow emergencies
36. Ask folks who were towed why they got towed
37. Do E-W and N-S instead of Odd Even
38. Do 3 days of day time plowing – no night plowing
39. change snow emergency start times to coincide with the end of the snowfall
40. don't go so fast that plows spray buildings
41. How many are repeat offenders

General poll of preference between snow plans:

- 4 were in favor of a 24-hr plan
- 3 were in favor of the existing system
- 8 did not have a preference

Citizen comments from Neighborhood Meeting #4

1. How many offenders are visitors to the City
2. 36 Hours before the plows get to my neighborhood
3. the current system in Mpls looks like it was plowed by committee
4. Takes so long to plow that we are driving on ruts
5. There are mountains in intersection
6. Too far to get to a snow emergency route – get stuck
7. Cost? Can you shrink impound lot or tow less?
8. Plow low-density area first? Would dense area want to be plowed last?
9. What about pedestrians? Little plow on sidewalks following big plow on street?
10. No one wants to be plowed last, City should find what is most efficient and do it
11. Plow less dense first because dense area has more snow emergency routes
12. Do no ticket and towing in certain areas
13. Like signage – especially for visitors
14. Alleys not clear
15. Inconsistency of who gets plowed when, and level of service
16. Alternate parking year round
17. Don't care about length of time to plow, want to see pavement curb to curb
18. Use the Milwaukee system - Even – odd day or even day starting at midnight – 6 hour time out, 6 PM – midnight
19. Change equipment to improve performance
20. Plow sidewalks - cost about \$2-3 million per year and it would take five days – put a surcharge on utility bill for 5 months – pilot – block basis vs. city wide as public good
21. Clean out bus stops 8pm – 9pm
22. Citywide parking permits and change sides each day
23. Signed system allows customization
24. Allow plows to plow both sides of a street if it is free of vehicles
25. Easy to change signs on a specific street
26. Don't leave windrow that is impossible to drive through, better not to plow at all or do a full snow emergency
27. Shared parking – great idea with time limit (Columbus Church near 25th offered lot)

28. Co-share off-street requires blacktop, fence, light, permit for neighborhood vacant lots, tear down crummy house, creates places for drug dealers
29. Tow around block great, so I don't have to dig my car out
30. Put a price tag on tow around block - \$50 pilot project
31. Don't want unknown car dropped in front of my home
32. Use multiple languages in written communications
33. Could we use sound vehicles with loudspeakers to alert citizens about a snow emergency and parking restrictions
34. Already have too many signs
35. Alternate parking year round – hard in 6th ward and St. Square – Condition people
36. Don't need day and night signs – just signed or not signed
37. We always declare last versus St. Paul
38. Snow emergencies are a best kept secret; use air raid sirens, loudspeakers, taggers blare horn first then tag
39. Use days for parking restrictions e.g. "Tues – park on even side"
40. Street signage could use an existing pole and have flippable signs like hazardous materials signs
41. Incremental fines for repeat offenders
42. Start before 9 PM
43. There could be two categories of snow emergency
44. Need a lot to put car in – if gone for a week
45. Impound lot should be proactive to find owners of vehicles towed
46. Do preemptive tow
47. 24 hours plowing is a priority, love more signs, current system is punitive
48. Increase # of taggers
49. Need something like highway helper
50. Guys in neighborhood can pull people out – don't regulate them as towers
51. Odd-Even is sometimes hard to determine within the City
52. Eliminate liability to city for hitting cars that are violating parking restrictions
53. Paint idiot cars that violate parking restrictions
54. Increase the fine to \$700 for private plowers that push snow into street
55. Be consistent with St. Paul
56. There is differential treatment between Stevens Square and 50th –Xerxes

57. People are oblivious to signs
58. Need consistency over the years with the system, it will be easier to train people
59. Will 24 hour increase compliance?
60. What percent of towed vehicles (of all vehicles) is acceptable?
61. If a resident volunteers to clear all the sidewalks on their block, could they get a credit on a city service such as the water bill? Some residents already use their own snow blower to do an entire length of block as a courtesy to their neighbors
62. Like the concept of co-sharing off-street parking – they already do it informally in his ward

RESPONSE TO INFORMAL POLLS:

Should the neighborhoods be allowed to choose/customize their snow removal plan?

-Consensus was “no”

How many favor 24 hour or existing plan?

-24 hour - @ 11 people

-Existing plan - @ 6 people

Additional Input via Email, Phone Calls, and Letters

The following additional citizen input was received from emails, telephone calls, letters, and citizen comment cards that were distributed at the Neighborhood Informational Meetings.

- Alley plowing is worst I’ve ever seen this year, it was great last year
- SE in Mpls work great, the streets in St. Paul are a mess
- In favor of 1 day plowing, synchronize with St. Paul
- Plow school bus loading zones first, and make all streets around schools SE routes
- City workers do a great job plowing, it can not be done faster with all the cars in the City – keep up the good work
- SE process is terrible, we should have 24-hour, get cars off the street
- I plowed in Mpls for 31 years, we did 24-hour in 1965, it did not work then it will not work now – too many cars. St. Paul only does 24-hour plowing of the center of their streets – Mpls does curb to curb
- I Like more signage, 24-hr system will help to know when plow will arrive, know when to shovel driveway, City expects 24-hr for residents clearing of sidewalk, we expect the same for the City streets
- Current system is too complex to communicate

- Allow parking of vehicles in yards during snow season, do tow around the corner on 2nd and 3rd day
- Do not appreciate plow dumping snow in my driveway – use a snow gate on the plows
- Use seasonal 1-sided parking ban
- Current method of plowing is most sensible, St. Paul streets are not plowed as well as ours
- Strongly support a 24-hr plan, if City workers can't do it hire contractors
- Mpls does a superb job at snowplowing, parked vehicles are the problem, 24-hr will fail and be expensive. Use seasonal 1 sided parking ban. Only give tags on day 3
- SE are handled efficiently now, no place to park, 24 hr will create more tows and more angry people
- Create a lock box program so City workers can move cars
- St. Paul can do 24-hour, why can't we
- Follow the plowing schedule we have set
- Mpls should go to a 24-hour
- You never tow cars from my street
- I have seen City employees placing tickets on cars after the plow has gone by; tow the cars around the block, or to a church parking lot; City is gouging the public by towing, my observations right or wrong influence my attitude towards the city and my vote at the polls
- St. Paul is better than Mpls., parking not a problem in my area, snow pushed into sidewalks
- I have no problems complying with parking restrictions
- People on my block are new arrivals and don't know about SE's
- We have no boulevards and sidewalks are buried by the plows
- No more signs – they are horrible – ugly – the system works fine
- 24-hour plan sounds great – more signs
- need better notice on all TV news shows
- 348-SNOW is great idea but the message is so complex I don't understand
- clear the “parking bays” on parkways
- current system is best - with better, more detailed notice on website, email, TV
- provide off-street parking near where I shop, it's days before my alley is plowed
- communicate a positive message and where to park – instead of “no parking”
- use of-street parking in neighborhood lots, I support the current 3 day plan with increased enforcement, the 24-hour plan would make parking impossible
- keep the current system and tow people who do not move their cars

Citizens Survey

The Minneapolis Citizens Survey was conducted between November 2001 and January 2002. A total of 1,210 telephone interviews were conducted and a number of questions related to snow emergency services were included in the Survey.

When asked which of the following sources would you prefer to get snow emergency information, the following percentage of respondents indicated:

- 90% - radio
- 73% - signage
- 66% - 348-SNOW
- 59% - City calendar
- 56% - snow brochure
- 49% - city website
- 46% - newspaper

When asked their opinion of how the City could better help them comply with parking restrictions during snow emergencies, almost 40% indicated they either don't drive, didn't think it was a problem for them, or weren't able to make a suggestion.

Almost 25% of citizens indicated some improved means of notification would help them comply, and 21% indicated signage improvements would help them comply.

Almost 15% said snow emergency parking restrictions are not a problem now, and 0% indicated faster plowing of streets and alleys would help them comply.

When citizens were asked their level of satisfaction with snow plowing, and how much future attention should be devoted to snowplowing, they indicated they were satisfied with snow plowing services, and that the City should devote slightly more attention to snow plowing. The Near North Community indicated a higher level of attention should be devoted to snow plowing than the other 10 communities.

When the results of the level of satisfaction and need for future attention for snow plowing were graphed with comparable results for 14 other City services, snowplowing was near the middle of satisfaction and future attention compared to results of other City services.

A total of 44% of the respondents believe the City should devote some more attention to snow plowing. A total of 26% of respondents believe that property taxes should be increased to maintain or improve snow plowing service.

Minneapolis Public Schools

The Director of Transportation Services for the Minneapolis Public Schools (MPS) was interviewed to identify the MPS issues and comments regarding the SE operations and he stated that he was very satisfied with the current 3 Phase plan.

Over 650 MPS buses operate on City streets every morning and every afternoon of a school day. The Director of Transportation is responsible to determine if schools will remain open during snow events. He determines that if his bus drivers can get to work during snow events, it indicates the roads are plowed well enough for his buses to operate and schools to remain open.

During the last significant snow event of the past season which was declared a SE, he sampled City streets by driving routes about 4 a.m. and determined that the plowing done by City staff allowed his drivers to get to work, and therefore his buses could make their routes. The MPS stayed open and did not declare a “snow day”. The City of St. Paul elected to close schools during this same snow event and declare a “snow day”.

The MPS buses serve 118 buildings and the school loading zones are currently cleared by City plows.

If the City were to convert to a 24-hour plan he was concerned about the following:

- Time of declaration
- Time of start of the SE
- How back-to-back SE’s would be handled
- The location of his schools needs to be considered in new routes

Metro Transit

The Manager of Street Operations of Metro Transit was interviewed to identify their issues and comments regarding the SE operations. The Manager stated they are satisfied with the current SE operations.

Metro Transit buses operate on City streets 24 hours a day. Over 550 buses are operating in Minneapolis during the morning and evening rush hours. The last time buses were stopped because of snow events was in 1991. The most beneficial SE feature for Metro Transit would be a one-sided parking ban. A permanent parking ban such as 11 p.m. to 5 a.m. would also be beneficial.

If the City were to convert to a 24-hour plan he would be concerned about the following:

- Maintain same level of service as current plan
- May need more “no parking anytime” in problem areas such as Hennepin and Lake
- May need more customization of clean-up after the 24-hours is done
- one-side of the street being plowed - they prefer both sides plowed in a phase
- Need good coordination of new routes with bus routes

He offered to assist in communicating SE information using signage in their bus, or using the audio system on the bus. This could help inform up to 33,000 bus riders each day.

Survey of Other Municipalities Snow Emergency Operations

A survey of larger snow cities and regionally adjacent municipalities was conducted to identify alternative “best practices” for snow emergency operations.

A total of 30 cities were contacted and sent a survey containing questions regarding their snow emergency operations. The 19 cities that returned completed surveys are shown in Figure 8 through Figure 14.

Some of the general findings from the cities returning surveys include:

- Most cities have some sort of snow emergency program.
- The amount of snow accumulation to declare a SE varies throughout the cities. Most are in the 3”-6” range. Buffalo uses 12”-16” to declare a SE.
- Winnipeg SE is 5 days long, Toronto and St Cloud SE’s are 72 hours; Edina SE is 8 hours; Bloomington is 12 hours; and Rochester NY is 12-24 hours; however the tasks completed during each SE varies considerably.
- Minneapolis plowing standards appear to be generally consistent with the range of respondents.
- Seven cities use “tow around the block” – Buffalo, Denver, Edmonton, Greeley, Rochester NY, Toronto, and Winnipeg.
- Milwaukee and Buffalo use school parking lots for off-street parking during snow emergencies. Buffalo also uses church parking lots.
- Minneapolis has the highest number of towed and impounded vehicles with 1700 per SE (or 567 per day). St. Paul is second highest with 1400 per SE. Next highest is Milwaukee with 175 per day.
- A number of cities use a seasonal or year-round one-sided parking ban.
- Communicating SE information and managing expectations with the citizens is a continuing challenge for many cities.

Unique Snow Emergency Techniques Used by Other Cities

“Tow Around The Block” or “Mini-Tows”

This feature involves towing vehicles to the nearest plowed street rather than to the cities impound lot when the vehicle violates SE parking restrictions. This feature is used by Buffalo, Denver, Edmonton, Greeley CO, Rochester NY, Toronto, and Winnipeg.

The City of Buffalo uses this program extensively. During recent winters when severe snow events have occurred, the City has conducted over 1,500 tows around the block. The City uses 5 city-owned trucks and up to 28 contract tow trucks. Each tow truck can move up to 7 vehicles per hour, or up to 90 vehicles in a 12-hour towing shift.

A violating vehicle will be towed to the nearest plowed location that is less than 1000' from the original location. The parking enforcement officer records the vehicle license plate number, address the vehicle was moved from, and address the vehicle is moved to. This information is entered into a database and is then available to citizens through a telephone number or at the City's website within 6-8 hours of the mini-tow.

The Buffalo City Attorney has determined that if the “from address” and the “to address” are available to the citizen, the City is not liable for damages to the towed vehicle.

The fee for a SE parking violation is \$15, and the fee for the mini-tow is \$25. During recent, severe snow events during which the City has been forced to declare a “state of Emergency”, the City would conduct the mini-tow and not charge the citizen.

Abandoned, stolen, and scofflaw vehicles are towed to the impound lot.

The City has used mini-tows for the following primary reasons:

- Allows quick plowing of the streets
- Shortage of “space” in their impound lot
- Public officials received substantial pressure from citizens that had been towed to the impound lot
- Towing to the impound lot was time consuming for the City and citizens, and costly to citizens

The City also uses loudspeakers on Traffic Enforcement vehicles and staff knock on residents doors to ask them to move violating vehicles.

“Co-Share Off-Street Parking”

This feature involves utilizing specific “off-street” parking lots for parking of citizen’s vehicles during SE parking restrictions.

This program is used in Milwaukee and Buffalo.

The City of Milwaukee uses this program extensively. The City makes available 22 school parking lots and playgrounds for citizen parking at no charge from 7 p.m. to 7 a.m. during SE’s. These lots are plowed by the City at the beginning of a SE. The City also allows parking during SE’s at 58 City-owned lots at no cost, or for a minimal fee. These lots average about 40 spaces.

The City of Buffalo also uses school and church parking lots for parking during a SE. The City owns the public school facilities and plows these at the beginning of a SE and makes them available on holidays and weekends when school is not in session. The City also has an informal policy of offering to plow church parking lots and private school parking lots during major snow events in return for those entities allowing free parking to citizens during SE’s.

Additional SE Features Used by Other Cities

A number of other SE features are used by some of the cities including:

- Total parking ban on all streets until completion of SE
- Seasonal one-sided parking bans
- SE parking restrictions for only selected areas of the city
- Parking restrictions that are lifted once the street is plowed
- Communication techniques – temporary signage, early season warning tickets, flyers on windshields prior to snow season, paid TV ads, utility bill inserts
- Year-round parking bans
- Using loudspeakers to inform citizens of SE tagging and towing
- Going door-to-door to ask citizens to move vehicles

FIGURE 8 - BEST PRACTICES SURVEY

DEMOGRAPHIC AND SERVICE DEMAND FACTORS

	Population	Square Miles	Population Density/sq. mile	Total Centerline Miles	Total Lane Miles	Annual Snowfall (inches)	Utilize SE Procedures?	SE threshold in inches	Average # of SE's per year
1	Bloomington MN	85,172	36	2,366	340	2,016	Yes	Other	10
2	Buffalo, NY	292,624	41	7,137	700	pending	Yes (note 2)	12-16"	1
3	Denver, CO	554,636	153	3,625	1,767	4,417	Yes	6"	2 or less
4	Duluth	86,918	68	1,278	502	NA	No (note 1)	NA	NA
5	Edina	47,425	16	3,021	220	440	Yes	3"	?
6	Edmonton, AB	648,284	270	2,401	2,770	7,494	Yes	6" in 24 hrs	<1
7	Greeley, CO	76,930	30	2,573	320	1,299	Yes	6"	only 2 in eleven years
8	Madison, WI	208,054	69	3,028	700	2,000	Yes	3"	5
9	Mankato	32,427	12	2,795	355	158	Yes	4"	5
10	Milwaukee, WI	596,974	96	6,212	1,443	7,081	Yes	4"	4 general plowings per year, not all SE
11	Minneapolis	382,618	58	6,597	986	2,538	Yes	4"	3.4
12	Rochester, MN	85,806	40	2,167	370	N/A	Yes	6"	0
13	Rochester, NY	219,773	36	6,139	537	N/A	Yes	6"	1
14	St. Cloud	46,734	15	3,223	323	733	Yes	3"	none to date, but is now w/in an ordinance
15	St. Paul	287,151	53	5,438	874	NA	Yes	3"	6
16	Toronto, ON	2,529,300	244	10,366	3,319	7,996	Yes	3" (note 3)	one every 5 -10 years
17	Winnipeg, MB	631,700	178	3,549	1,698	4,225	Yes	3"	3

Note 1: Duluth plows snow within the parameters of its year-round alternate side parking bans; see Table 2a

Note 2: Depends on amount accumulated, forecast, and winds; for Buffalo, a SE typically means greater than 12"-16" and enlisting aid of contracted services

Note 3: although policy is for 8 cm (3.1 inches) accumulation within 8 hours, in practice they "usually wait until 12 inches" has fallen

**FIGURE 9 - BEST PRACTICE SURVEY
OVERVIEW - SNOW EMERGENCY PROCEDURES AND SERVICE LEVELS**

		Timeframe for SE procedures	Basic SE Procedures	Basic Parking Restrictions	Uniform citywide application?	If not, how does it vary?
		Q7	Q6	Q6b	Q8	Q8a
1	Bloomington, MN	12 hrs	Plow priority routes first, then residential; begin plowing 3 am.	Total parking ban after 3" accumulation for 48 hours or until street is plowed curb-to-curb.	Yes	NA
2	Buffalo, NY	Varies w/ amt: about "2 days" for a 12" snowfall	Phase II conditions constitute a SE (high accumulation, low temps, high winds); this invokes the use of OT as well as private contracted crews/equipment and the use of temporary offstreet parking options	No parking on bus routes from 1 AM to 9 AM from Nov. 1 to April 1. We have the authority to institute an every other day alternative parking plan in an emergency but we have never used it. We feel that it might be confusing.	No	Less restrictive in residential areas
3	Denver, CO	varies - no set timeframe	Uses a 4-phase program: Phase I: focus on arterials; Phase II: add plowing of residential streets and possible parking restrictions; Phase III: add equipment via con-tractors; Phase IV: clean-up and removal	Parking restrictions may be declared after 6" of snow; these restrictions prohibit parking on selected snow routes as marked by signs	Yes	NA
4	Duluth	36 hours	No formal SE procedure; we plow arterials first, then residential, then alleys, cul-de-sacs, and sidewalks	downtown: (2am - 6 am nightly) and residential areas (even/odd bans every other week); both bans are year-round	Yes*	*as described, except for one-way streets
5	Edina	8 hrs	plow main (red) routes first, then residential, then cul-de-sacs/alleys	no parking on City streets November 1 to March 31 when 1 1/2" of snow falls until street plowed curb to curb	Yes	NA
6	Edmonton, Alberta	24 hrs	A public announcement declares a Snow Route Parking Ban. Vehicles remaining on the route can be tagged and towed. The ban is declared in 72 hour increments.	Complete "No Parking" entire route 24 hours a day in 72 hour increments.	Yes	NA

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7	Greeley, CO	12 hrs	The Director of PW normally declares a SE if conditions are such that normal operations are not able to keep the streets clear. When a SE is declared a No Parking ban goes into effect. Local radio, newspaper and TV are notified to get the information to the citizens.	When the no parking ban goes in effect both sides of the street are restricted 24 hours a day until the snow is removed. If cars are not moved from posted snow routes they will be towed to the off street and receive a \$50 ticket.	Yes	NA
8	Madison, WI	2 days	We use a SE for only one section of the city: our CBD on an isthmus between two large lakes (about 3 miles by 1 mile). Outside of this area, all streets are subject to an alternate side parking ordinance that is enforced Nov 15 to Mar 15. This same alternate prkg ban is used in the SE Zone (CBD) for 2 nights following a declaration of a SE.	The seasonal (Nov 15-Mar15) ban is as follows: vehicles must be parked on the odd side on odd-numbered days, and even side on even-numbered days from 1 -7 am. The area within the SE Zone is exempt from this ban except during SE's.	No	See answers to procedures and parking ban
9	Mankato	24 hrs	When a snow emergency is declared parking is not allowed on any street until that street is plowed curb to curb. We attempt to give at least 4 hrs. advanced notice of when no parking is in effect	Our goal is to have the driving lanes of all streets plowed within 12 hrs. and all streets plowed curb to curb within 24 hrs. This schedule is adjusted if it keeps snowing. When cars are towed, plowing equipment is on the scene to plow as the vehicles are moved. As each block is plowed curb to curb, parking is allowed on that block, with the SE still in effect.	Yes	however, 99% of the problem occurs in 10% of the city, but all parts of the city are treated as equal as possible.
10	Milwaukee, WI	12 to 18 hrs	Alert media and Police. Information on city cable TV station.	Alternate monthly parking; alternate one side; permanent one side; monthly alternating one side; no parking after 2 inches of snow.	No	Each neighborhood has parking regulations to best serve the need of that area.

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11	Minneapolis	36 hrs	Three 12-hour phases. Major arterials completed in first 12 hours, residential streets completed in next two 12 hour phases - one side each.	pending	Parking restrictions follow plowing plan: no parking on SE routes during first 12 hours; on odd side of residential streets next 12 hours, and on even side during last 12 hours	Yes	NA
12	Rochester, MN	pending	Designated snow routes are posted, the mayor or his designee declares the S.E. The public is notified through various media types. A window is declared; generally 12 to 24 hours.	pending	During S.E. there is no parking on designated snow routes. An S.E. has a start time and an ending time. The S.E. may be extended if necessary.	Yes	NA
13	Rochester, NY	24 hrs	SE Declaration means towing of any illegally parked cars immediately after they are ticketed. Our policy is 3 inches or more of snowfall will initiate a SE.	24 hrs	Odd/even calendar parking from Nov. 1 to April 1.	No	Some new annexed areas have no on street parking regulations.
14	St. Cloud	72 hrs	Night phase: SE routes & posted side of N/S residential streets; Day phase: E/W residential & non-posted side of N/S residential & cul de sacs	16-20 hrs	No parking per plow schedule "until streets have been plowed to the curb"; year-round parking restrictions apply to downtown area and selected arterials at night	Yes*	*Except for downtown
15	St. Paul	72 hours	expressways & main roads first priority; plow side (residential) streets w/in 15-20 hours after end of snowfall; next 24 hours clean-up plowing; sidewalks, bus shelters in 48 hours	72 hours	on selected major streets, 24 hr a day until snow is removed	No	procedures do not apply to residential streets
16	Toronto, Ontario	5 days	Initiation of parking bans to limit the number of parked vehicles on our City streets. Once it is decided to undertake a major snow cleaning effort, the bans are placed into effect for the duration of the plowing effort.	5 days	Parking/stopping is prohibited on all City streets from 12:00 midnight to 6:00 am. This prohibition remains in effect until all plowing is completed. However citizens can park once a street has been plowed and they won't be ticketed	No	Ticketing and towing to impound only applies to arterial streets. On local streets cars are ticketed only.

FIGURE 10 - BEST PRACTICE SURVEY

DETAIL - SNOW EMERGENCY PROCEDURES AND SERVICE LEVELS

	Level of Plowing Services(see key below)						Clear Sidewalks?				Plow alleys?	
	Arterials	Residential	Alleys	Other	on City-owned property	on bridges	private, business property	private, residential property				
1	Bloomington, MN	b	c	c		Yes	Yes	Yes	Yes	Yes		
2	Buffalo, NY	a	a	c		Yes	Yes	No	No	Some		
3	Denver, CO	a	b	NA	Secondary: a	Yes	Yes	No	No	No		
4	Duluth	a	b	c		Yes	Yes	No	No	Yes		
5	Edina	a	c	c		Yes	Some	No	No	Yes		
6	Edmonton, Alberta	a	f	f		Yes	Yes	No	No	Some		
7	Greeley, CO	a	e	e	Priority 2 streets: b	Yes	Yes	No	No	Some		
8	Madison, WI	b	c	c		Yes	Yes	No	No	Some		
9	Mankato	a	a-c	c		Yes	Yes	No	No	Yes		
10	Milwaukee, WI	b	b	e		Yes	Yes	No	Some	No		
11	Minneapolis	b	c	c		Yes	Yes	Some	No	Yes		
12	Rochester, MN	a	b	c		Yes	Yes	Yes	Yes	Yes		
13	Rochester, NY	a	c	c	Central Bus district: a	Yes	Yes	Yes	Y	Yes		
14	St. Cloud	b	c	d		Yes	Yes	Some	Some	Yes		
15	St. Paul	b	c	e	Loop: a	Some	Yes	No	No	Yes		
16	Toronto, Ontario	a	f	g	Collector: b	Yes(90%)	Yes	No	No	Yes		
17	Winnipeg, Manitoba	a	a	d	Sidewalks: c	Yes	Yes	No	Yes	Yes		
		a = bare pavement all lanes										
		b = bare pavement in traveled lanes; snow packed in parking lanes										
		c = snow packed with sanding applied on hills, curves, intersections										
		d = snow packed, no further treatment										
		e = no consistent or specific level of service										
		f = other, please explain										

FIGURE 11 - BEST PRACTICE SURVEY

PARKING RESTRICTION ISSUES

	How big a problem are parked cars?	Parking enforcement methods used				Parking bans used				Avg # of tows per SE?	
		Tags	Tow-impound	Tow-around block	Other	Temporary, seasonal on selected streets	One side after threshold amt	Overnight	Other		
1	Bloomington, MN	X						No parking bans used			do not tow
2	Buffalo, NY	X	X (note 1)	X		X					200 (note 8)
3	Denver, CO			X					X (note 3)		NA
4	Duluth	X	X					Year-round parking bans; see Table 2a			10
5	Edina	X						X			1
6	Edmonton, Alberta	X		X					see note 3		NA
7	Greeley, CO			X							
8	Madison, WI	X							see note 4		
9	Mankato	X	X				see note 2		see note 5		100
10	Milwaukee, WI	X	X					X	see note 6		175/night
11	Minneapolis	X	X					X			1,700
12	Rochester, MN	X	X								3
13	Rochester, NY	X	X	X					see note 7		N/A
14	St. Cloud	X	X					X			6 to 12
15	St. Paul	X	X					X	see note 8		1200-1400
16	Toronto, Ontario	X	X	X				X	selected areas		100
17	Winnipeg, Manitoba	X	X	X				X	see note 9		250

Note 1: tow & impound done as last resort (about 200 per SE); the norm is 'mini-tows' (tow around the corner) which are not counted in this figure

Note 2: traffic enforcement officer, plow, and tow trucks all on scene. The TEO tells tow driver to move vehicles, actual tickets written at impound lot as vehicles are brought in.

Note 3: temporary bans during snow removal

Note 4: some streets have parking ban on one side only, some have no parking all or part of the time

Note 5: when parking is plowed cars move to no parking side until the other side is plowed - then move back

Note 6: opposite side parking

Note 7: posted alternated side parking restrictions throughout the year.

Note 8: Loop: n/s Mon, Wed, Fri - e/w Tues, Thur, Sat. Major Primaries: 2 am-7am some every night some other frequencies

Note 9: temporary no parking signs used in isolated areas where work required - short term only

FIGURE 12 - BEST PRACTICE SURVEY

"EFFECTIVE" TECHNIQUES and "MOST DIFFICULT ISSUES"

		techniques to improve compliance with parking restrictions	techniques to deal with vehicles parked in violation of parking restrictions	"most difficult" issues
1	Bloomington, MN	not a huge problem for us	not a huge problem for us	Public perception: "sand too much", "don't sand enough", "why are you plowing - not enough snow", "why aren't you plowing"
2	Buffalo, NY	personal contact with residents: loudspeakers on Parking Violation Bureau trucks (which do ticketing), knocking on doors	same	parked cars, equipment breakdowns
3	Denver, CO	Media	none	equipment breakdowns
4	Duluth	mailers, media information	tag and tow	parked cars
5	Edina	plow drivers alert our PD of snow birds	tag	
6	Edmonton, Alberta	Temporary signage (indicating 3 day period for pick up) placed in windrow prior to removal; labor intensive but customer friendly	tow around the corner	Parking restrictions. Residential service levels.
7	Greeley, CO	24 hours after the street was plowed, we place a courtesy letter asking them not to park on the street when there is a snow fall	The City has only declared two (2) SE's since inception. We have not had to tow any vehicles, however, we have put in our program to tow and fine (\$50).	
8	Madison, WI	We hire seasonal parking monitors to enforce the alternate side parking ordinance 7 nights a week during season.	If vehicles are not moved for a period of time after a snow storm parked cars are referred to Police parking enforcement for towing as abandoned vehicles or illegally stored vehicles	Our service varies from the service level of surrounding suburbs, traffic, demanding customers
9	Mankato	We have tried everything that could be imagined - the system now used works the best. When a snow emergency is called no parking is allowed on any street, until that street has been plowed curb to curb. No exceptions.	As previously described we have tried everything - no parking is the only one that works if you truly want to solve the problem.	No matter what you do, some people will not hear that a snow emergency has been called. There are those that think a parking spot is a God given right [even when it snows.]

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10	Milwaukee, WI	our most effective tool was a press release to broadcast media with a contact phone number. From this I did 5 informative television spots regarding emer. parking regulations.	Tow to impound lot	After public safety is guaranteed, weighing the additional costs vs. public convenience
11	Minneapolis	A variety of PR - no other physical means of enforcement	Tow to impound lot	public compliance with the rules - especially on weekends
12	Rochester, MN	no response	no response	Parking problems with large number of transients at Mayo; most transients would have no idea that a snow emergency was in effect
13	Rochester, NY	short parking restriction windows on specific days of the week, approx. 6 areas	ticketing and towing cars that are obstructing or have been snowbound for a number of days	On street parking, snowbound cars, plowing in driveways, contractors pushing snow into the street
14	St. Cloud	early season warning tickets, then consistent ticketing is the best training tool. Just starting to enforce regulations as described in earlier comment in survey	tow and impound when a snow emergency is declared	Whiners, complaints and lack of understanding from the public what it takes to clean up a city after a snowfall. Difficult to get PD involved in enforcement but that is moving forward
15	St. Paul	completely plow them in, email notices	tow to impound lot to discourage future non-compliance	clueless customers - the notice of plowing to come is everywhere when 3" or more of snow has fallen. Also inadequate number of drivers.
16	Toronto, Ontario	special signs on snow emergency routes, also media warnings	tow around the corner	very high public expectations!!
17	Winnipeg, Manitoba	education programs that are covered in later questions	Most effective technique is publicity resulting from towing and impound	Lack of accurate forecasting information, availability of private equipment, raised public expectations, limited funding

**FIGURE 13 - BEST PRACTICE SURVEY
COMMUNICATION METHODS**

Q29: how do you communicate to public?												
	press releases to news-paper	community papers	radio/TV	cable TV	post notices	telephone	street signs	web site	email	flyers	other	other- describe
1	Bloomington, MN	X	X	X		X	X			X		
2	Buffalo, NY	X	X	X	X			X				
3	Denver, CO		X			X	X	X			X	City Council
4	Duluth	X	X				X			X	X	utility bill inserts
5	Edina	X						X				
6	Edmonton, Alberta	X	X			X		X			X	Pamphlets & maps
7	Greeley, CO	X	X	X		X	X	X		X	X	door hangers on snow route homes
8	Madison, WI	X	X	X		X		X	X		X	flyers on windshields in fall
9	Mankato	X	X	X		X		X		X		
10	Milwaukee, WI	X	X	X			X	X				
11	Minneapolis	X	X	X		X		X	X	X		
12	Rochester, MN	X	X	X			X					
13	Rochester, NY	X	X	X			X	X		X		
14	St. Cloud	X	X	X				X			X	see note 1
15	St. Paul	X	X	X	X	X	X	X	X			
16	Toronto, Ontario	X	X	X	X	X	X	X			X	media interviews
17	Winnipeg, Manitoba	X	X	X	X	X	X	X	X	X	X	ads on TV

Note 1: Ticketed cars during non-emergency snows got a flier stating that if this was an emergency, the vehicle would have been towed.

**FIGURE 14 - BEST PRACTICE SURVEY
PERSONNEL AND EQUIPMENT**

		Q13 Personnel Assigned to SEs			Support (mechanics)		Q15: Use Solid Waste:		Q. 19 # & Type of Equipment (owned and contracted)						
		Mgr/Supv	Drivers/Operators	FT	PT	FT	PT	Personnel	Equipment	Single axle	Tandem axle	Moter Graders	Front End Loaders	Solid Waste Vehicle	Other
1	Bloomington MN	4	46			10		No	No	20	12	0	5	0	9
2	Buffalo, NY	11	45			9		Yes	No	10	55	4	220		505
3	Denver, CO	23	120	10 - 15		15 - 20		No	No	0	78	11	7	0	0
4	Duluth	4	66	4		5		No	No	27	3	20	5	0	0
5	Edina	2	30			5		No	No	15	7	1	5	0	3
6	Edmonton, AB	35	300					No	No	12	70	185	5	0	24
7	Greeley, CO	4	35			4		No	No	7	4	2	0	0	6
8	Madison, WI	15	90			12		Yes	Yes	63	14	44	35	0	0
9	Mankato	1 per shift	12 per shift	none		6 during reg hrs, 1 -2 during off hrs	none	No	No	10	6	1	4	0	2
10	Milwaukee, WI	100	392			138		Yes	Yes	60	30	0	69	181	0
11	Minneapolis	26	180	10		80		No	No	10	31	18	17	0	33
12	Rochester, MN	1	44			4		No	No	16	8	6	2	0	4
13	Rochester, NY	12	69	9		28	1	Yes	Yes	10	18	1	5	30	58
14	St. Cloud	2	27			3		Yes	No	4	14	4	2	0	2
15	St. Paul	12 per shift	65 per shift	25 per shift				No	No	40	16	18	5	0	0
16	Toronto, Ontario	100	500	1,200		100		No	No	70	255	250	100	0	503
17	Winnipeg, MB	10	180	500		30	50	No	No	75	50	72	90	0	30