

CITY OF SPARKS

2014 - 2015

SNOW and ICE CONTROL PLAN



Prepared by:

Community Services Maintenance

2014 - 2015 Endorsement

The 2014 - 2015 Sparks Snow and Ice Control Plan presented in this document is endorsed by the City Manager of the City of Sparks as the Plan that supersedes all previous Sparks Snow and Ice Control Plans. This Plan will be used and followed during all average, major and emergency snow and ice events in the City of Sparks until such time in the future that revised editions are endorsed to supersede this Plan.

This Plan is not a guarantee that damages will not occur as a result of snow and ice weather events within the City of Sparks. It is a general snow and ice control plan that will provide guidance to City responders and managers with the goal to provide safe and accessible travel on priority streets within the City of Sparks during major and emergency snow and ice events.

This document is intended only for use by the City of Sparks departments and is not intended to be a model or template for any other purpose.

Sparks City Manager

Steve Driscoll

Date



Snow & Ice Control Plan

**CITY OF SPARKS
PUBLIC WORKS DEPARTMENT
SNOW & ICE CONTROL PLAN**

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SNOW & ICE CONTROL PROCEDURES

Snow & Ice Control Procedures

Purpose

The purpose of this plan is to annually review the snow and ice control procedures, guidelines and methods to ensure all work is performed in a safe, efficient, and environmentally sound manner. The outcome of this planning effort is to provide safe and accessible travel on priority streets within the City of Sparks during snow and ice events. Finally, because the Truckee Meadows is considered a non-attainment area for air quality, the annual plan must be designed to meet the 2004 District Board of Health regulations governing air quality management.

Background

The City of Sparks roadway network consists of 665 lane miles and is divided into 6 snow routes. Priority is given to arterial and collector streets along with school zones and bus routes. Residential streets generally are not sanded and/or plowed during average snow events due to the level of effort and resources needed on Priority 1 and Priority 2 roadways. During major or emergency snow events, residential streets are cleared as resources become available.

Snow and Ice Control Crews

Each year (October through March), the Maintenance Manager and Maintenance Crew Supervisors begin the daily monitoring of weather forecasts for any approaching winter storms. Based on the forecast, they will determine the necessary requirements for staffing and equipment. Depending on the size of the storm, work shifts can be changed or crews may work alternating 12-hour shifts in order to provide safe, efficient, and effective snow and ice control for each storm event. Generally a crew will consist of one crew supervisor, seven truck drivers and one mechanic.

Average Storm Events

During an average snow storm, one truck will be assigned in each of the designated snow routes to spread sand & salt mixture and/or plow. (See IV. Weather Monitoring & History.) In addition, a rover truck will be assigned to the route(s) with heavier accumulations of snow, and respond to calls from Sparks Police Dispatch.

Major/Emergency Storm Events

During periods of heavy snow accumulation, crew supervisors and crews will work alternating 12-hour shifts. Each crew will consist of one crew supervisor, seven truck drivers, one heavy equipment operator and one mechanic. In addition to the field staff, the Maintenance Services Center will be staffed with administrative personnel on each shift to support field operations. When possible, the alternating 12-hour shifts will be from 12:00 a.m. to 12:00 p.m. and 12:00 p.m. to 12:00 a.m. with the rotation continuing until the storm event is over and roadways are clear. When the snow depth has reached six inches with a forecast of continued snow, the City Manager or his designee will make a determination to hire contractors. In cases where the snow depth has reached ten inches, the City Manager or his designee will consider declaring a Snow Emergency.

Use of Contractors during Major Storm Events

When the City Manager has authorized the use of contractors to assist in snow removal, Public Works Engineering and Maintenance will coordinate city and contractor efforts through the use of strike teams. Strike teams clearing major routes will generally be made up of one Public Works strike team leader, one Public Works truck driver with snow plow/sander, and contracted equipment including two motor graders and two front-end loaders with equipment operators. The strike teams will clear all Priority 1 snow routes first. After the Priority 1 roadways are cleared, the strike team leaders will realign the strike teams to include one Public Works plow/sander working with one contracted motor grader and front-end loader with operators. The strike teams will start clearing Priority 2 roadways and residential streets in the higher elevations working toward the lower elevations. The severity of the storm, available funding and resources will determine the number of streets cleared in residential areas.

Declared Snow Emergency

The Inter-local Agreement for Emergency Snow Removal Plan gives local jurisdictions, including the City of Sparks, the ability to coordinate resources in the event of a snow emergency. (See III. Inter-local Agreement.) When weather conditions severely impede vehicular traffic in the Truckee Meadows, the County and City Managers can jointly declare a snow emergency. The three agencies can then pool resources to ensure the continuation of emergency and public safety agency operations on designated snow routes. The Regional Snow Routes include those streets which are major routes carrying heavy traffic volumes, provide primary access, or are otherwise essential for rapid movement and response to the community by emergency vehicles.

Emergency Operations Center (EOC) Activation

Anytime a storm event exceeds or has the potential to exceed the capabilities of the Maintenance Division resources and additional support staff is required, the City Manager or his designee will be informed and a decision will be made to activate the Emergency Operations Center. During a Public Works event, the EOC will be staffed with an EOC Director designated by the City Manager, an Operations Section Chief, a Planning Section Chief from Public Works, and additional EOC staff as required. The EOC hours of operation will be determined by the level of support required for the event.

Information/Communication

During average storm events the Maintenance Manager and/or Maintenance Crew Supervisors will notify and update the City Manager, Assistant City Managers, Assistant Community Services Director & City Engineer, Emergency Manager, and Public Information Officer of snow and ice control operations. When the Emergency Operations Center is activated, supervisors and/or strike team leaders will keep the Operations Section Chief informed of snow and ice control field operations and provide the EOC with an Operating Period Resource List at the start of each shift. The Operations Section Chief will keep the EOC Director, Assistant Community Services Director & City Engineer, Emergency Manager, and Public Information Officer informed of field operations and prepare an Incident Action Plan (IAP) for each operational period. The Public Information Officer will provide press releases to keep the public and elected officials informed during the event.

Available Equipment and Staff

Public Works has a total of nine dump trucks with sand spreaders and snow plows. (See V. Equipment.) This includes seven 10 cubic yard (CY) dump trucks and two 5 CY dump trucks. In addition, the 10 CY asphalt patch truck is capable of spreading sand and can be used as a backup. Also available are two front-end loaders, one backhoe/loader, three bobcat loaders, one bobcat trencher with blade, one tractor and one quad with v-plow. There are 32 Public Works and Parks maintenance employees trained and qualified to operate snow plows and 8 employees trained and qualified to operate heavy equipment. There are 3 equipment mechanics and one equipment service worker to support snow and ice control operations.

Material Sites

The City of Sparks has a main material site and two satellite material sites for the storage and distribution of deicing materials. (See VII. Material Sites map.) The main material site is located at Gandolfo Arena off Vista Blvd. This main material site generally has stockpiles to include 1000 tons of mixed sand and salt, 1000 tons of straight sand and 60 tons of straight salt. The second material site at the Maintenance Services Center, located at 215 South 21st Street, has storage capacity for 100 tons of mixed sand and salt. The third material site at Golden Eagle maintenance yard off Vista Blvd. has the storage capacity for 100 tons of mixed sand and salt. A front-end loader will be located at each site for loading materials. In addition to the City of Sparks material sites, there is one Washoe County material site located at the Lazy 5 Regional Park on Pyramid Highway and an NDOT material site on Galletti Way. These sites can be used by the City of Sparks during storm events.

Sanding and Plowing Procedures

Snow and ice control material for sanding and plowing operations includes Brine or a mixture of sand and salt. The sand and salt is mixed one part salt to five parts sand. Trucks with manual controls for adjusting the amount of sand/salt put down on the streets will be calibrated at the beginning of each season and checked monthly. When a major storm has been forecasted for the Northern Nevada area, crews will be divided into two shifts. During average snow events or conditions that cause slick roads, crews will be scheduled to allow for sanding and/or plowing before morning and/or afternoon commutes. For those storms that are not in the forecast and no crews are scheduled, Public Works relies on Sparks Police Dispatch to advise and/or request snow and ice control. Crew supervisors will assign each truck driver a snow route. During all storm events, Sparks Police Dispatch will be contacted by the crew supervisor once the crew is on the road and trucks are available for response. Each designated snow route identifies where sand and salt will be spread on each street. The main focus is to spread sand and salt in the areas leading up to intersections, curves and hills. The use of snow plows will be determined by the crew supervisor and truck drivers; this is generally when the accumulated snow depth reaches 3 or more inches. Truck drivers will focus on sanding and plowing Priority 1 and Priority 2 roadways. During weekdays, they will also focus on sanding and/or plowing school zones before the start of school. Drivers will plow from the center or inside lanes to the curb side. Sanding and/or plowing will continue until the storm has ended and all Priority 1 and Priority 2 roadways are cleared and safe. (See VI. Snow Routes maps.)

Level of Service

During average storm events, Priority 1 and Priority 2 roadways will be sanded and/or plowed within six hours. During major or emergency storm events, Priority 1 and Priority 2 roadways will be cleared and sanded by strike teams within 12 to 14 hours.

Post Storm Procedures

At the completion of the storm event, the material storage bins at the Maintenance Services Center and Golden Eagle maintenance yard will be restocked with mixed sand and salt. The drivers will wash, grease and complete maintenance on all snow and ice control equipment. In the event of any equipment malfunction, the drivers will fill out a vehicle repair slip and immediately notify Equipment Services and the crew supervisor. This notification will expedite repairs on the snow and ice control equipment prior to the next storm event. It is the responsibility of the crew supervisors to keep the main material site and satellite material sites stocked. If needed, after each storm event, sand and salt will be delivered to the main material site. Enough mixed sand and salt, straight sand and straight salt will be stockpiled to meet the requirements of the Snow & Ice Control Plan.

Air Quality Requirements

Storm Cleanup

After a storm event, street sweepers will be sent out to remove all applied sand/salt materials as expeditiously and safely as weather and road conditions permit. In order to comply with the District Board of Health air quality regulations, Northern Nevada agencies have four days after the end of a storm event to have all sand/salt materials removed from the roads. The City of Sparks currently has five street sweepers. The number of street sweepers required will be dependent upon the amount of salt/sand spread and the number of areas covered. The Maintenance Division standard operating procedure for sand sweeping is to utilize all five street sweepers by assigning temporary sweeper operators to meet the four day requirement. This could include scheduling back-to-back shifts with the street sweepers running 16 hours each day. Once crew supervisors have a better understanding of the number of street sweepers required for meeting the District Board of Health air quality requirement, the street sweeping will be modified based on weather conditions and according to good business practices.

Other Sand Reduction Methods Used

1. Using brine solution to pretreat roads and prewet salt/sand.
2. Using proposed sand specification (mandatory, NDOT SAND SPEC. "D").
3. Using electronic/computer monitored spreaders/application equipment.
4. Calibrating the equipment used for sand application annually.
5. Using Enhanced Sweeping Strategy and Equipment (less than fourdays).

District Board of Health Air Quality Requirements

Because air quality in Washoe County has not met EPA Standards, the District Board of Health has mandated regulations to improve air quality. These mandates affect how snow and ice control programs are conducted. The goal of the program is to 1) reduce the amount of sand spread on City, County and State roads for snow and ice control by fifty percent, 2) reduce the time required to sweep up the sand after a storm event, and 3) change the specification of sand used to a harder material. The effect of this rule will be to reduce the amount of **PM**₁₀ entrained in the ambient air as a result of blowing winds, roads drying out, and vehicles traveling over sand.

Snow and Ice Control Sand Specifications

All sand used for snow and ice control will meet the following criteria:

1. Durability index must be greater than 75.
2. The Hardness Index must be less than 33%.
3. The content of material smaller than 100 mesh sieve must not exceed 4.0% fines by weight.
4. The content of material smaller than 200 mesh sieve must not exceed 2.5% fines by weight.

Plan to Reduce the Amount of Sand Used in a Storm Event

In April 2002, a plan was developed to reduce the amount of sanding materials used for snow and ice control by Northern Nevada agencies. This plan, which was submitted to and approved by the Washoe County Air Control Officer includes the following:

1. Documentation of the base sanding amount, (Section 040.031.B).
2. An implementation schedule describing the methods to be used to reduce the amount of sanding material applied compared to the base sanding amount by:
 - a. At least 20% during the winter of 2002-2003.
 - b. At least 35% during the winter of 2003-2004.
 - c. At least 50% during the winter of 2004-2005.

End of Year Sand Use Reporting Requirements

The Maintenance Division will complete and submit a report to the District Board of Health no later than June 30 each year, with the following information:

1. The total number of lane miles to which sanding materials are applied for traction control in the City of Sparks.
2. The total amount of sanding material, salt, and other deicing or anti-icing agents used.
3. Verification that a laboratory, independent of the supplier, tested the material used and proof that the material met the requirements specified in Section 040.031.A.
4. The number of dates of each sanding deployment.
5. Any additional lane miles where sanding materials were applied as a result of requests by law enforcement agencies.

End of Year Reporting for Sand Removal

The following identifies District Board of Health Air Quality Record Keeping and Reporting Requirements.

The Maintenance Division will complete a report and submit it to the District Board of Health no later than June 30 each year with the following information regarding street sweeper deployment:

1. Dates – List each day necessary to sweep all lane miles where sanding materials were applied, or until there is another sanding event.
2. Number of street sweepers used to sweep up sand.
3. Number of lane miles swept each day.
4. Type of equipment used (recorded as a percentage of lane miles swept per type of street sweeper).
5. Equipment malfunctions, if any.

2014-2015 Street Sanding and Sweeping Report

District Board of Health Regulations Governing Air Quality Management:
Sections 040.031 & 040.032

CONTACT:

PHONE:

AGENCY:

ADDRESS:

SANDING:

A. Network Characteristics:

Lane Miles included in sanding route/network for this season:

Total miles _____

B. Additional Lane miles sanded based on special requests or necessity:

Total miles _____

C. Material applied (Solids Only):

Sand: _____ tons

Salt: _____ tons

Other (specify) _____ tons

D. Liquid De-icers/Anti-icers:

NaCl₂: _____ gallons

MgCl₂: _____ gallons

Other (specify) _____ gallons of _____

E. Verification material met AQMD Specifications

Attach test results that verify material used meets specifications of Section 040.031(A).

F. Sanding Deployments (attach a separate sheet if more lines needed):

Complete the "Date of Event" and "# of Lane Miles Sanded" fields for each event on the Form on the back of this page – if necessary attach additional copies of form.

SWEEPING:

A. Storm Event Deployment of Sweepers (not considered Routine Sweeping)

Complete sweeper information per sanding event on the form on the back of this page – if necessary attach additional copies of form.

B. Routine Sweeping

Attach a summary of your Agency's Routine Sweeping or Best Management Practices.

C. Major Equipment Malfunctions – report if any.

Submit To: Daniel Inouye
Air Quality Management Division
401 Ryland Street, Suite 331
Reno, NV 89502
(775) 784-7200 x721

Record of Sanding and Sweeping Date of Sanding Event	# of Lane Miles in Network					
		Date Sweepers Deployed	# of lane miles Swept	# of Sweepers operated	% of Lane miles swept with Mechanical type Sweepers	% of Lane miles swept with Vacuum or Regenerative Air Sweepers
Date of Sanding Event	# of Lane Miles in Network					
Date of Sanding Event	# of Lane Miles in Network					
Date of Sanding Event	# of Lane Miles in Network					
Date of Sanding Event	# of Lane Miles in Network					



SPARKS MUNICIPAL CODE

Chapter 10.50

SNOW ROUTES.

Sections:

- 10.50.010 Definitions.**
- 10.50.020 Declaration of snow emergency.**
- 10.50.030 Parking on snow routes.**
- 10.50.040 Removal of vehicles.**
- 10.50.050 Snow route priorities and route designations.**
- 10.50.060 Regional emergency snow removal operations.**

10.50.010 Definitions.

As used in this chapter, the following terms shall have the following meanings, unless the context clearly indicates that a different meaning is intended:

"Snow emergency" means actual or forecasted weather conditions which require the absence of parked vehicles and other obstructions on snow routes to facilitate plowing and traffic flow.

"Snow routes" means those streets generally traversing the entire city or a major part thereof, and are considered essential to the rapid movement of emergency vehicles and normally carry the heaviest traffic volumes.

"Snow route priority" means a numerical system for ranking designated snow routes in two service levels: primary and secondary access routes.
(Ord. 1804, 1993; Ord. 1684, 1991.)

10.50.20 Declaration of snow emergency.

A. Whenever the assistant community services director & city engineer finds, on the basis of falling snow, sleet or freezing rain, or on the basis of a forecast by the United States Weather Bureau or other meteorological data indicating the threat of snow, sleet or freezing rain, that weather conditions could severely impede vehicular traffic in the city, the assistant community services director & city engineer shall declare a snow emergency.

B. A snow emergency shall automatically go into effect on any part of any snow route on which there has been an accumulation of snow or ice of six inches or more.

C. The assistant community services director & city engineer shall cause each declaration of a snow emergency to be publicly announced by means of broadcasts or telecasts from stations with a normal operating range covering the city, and may cause such declaration to be further announced in newspapers of general circulation when feasible.

(Ord. 1684, 1991.)

10.50.030 Parking on snow routes.

A. While a snow emergency is in effect, owners and operators of vehicles are encouraged not to park vehicles on snow routes and to remove any vehicle or other obstruction from a snow route.

B. Once in effect, a snow emergency under this section shall remain in effect until terminated by announcement of the assistant community services director & city engineer, except that any street area

which has become substantially clear of snow and ice from curb to curb for the length of the entire block shall be automatically excluded therefrom.

(Ord. 1684, 1991.)

10.50.040 Removal of vehicles.

A. During a snow emergency, a police officer or other government employee whose duty is to clear snow routes is authorized to order the immediate removal of any vehicle which is parked or disabled in a position which obstructs a travel lane or impedes the safe and expeditious clearing of snow on a snow route. If the owner or operator of such vehicle fails or refuses to comply immediately with such order, the vehicle may be immediately removed from the snow route to the nearest place where the vehicle will not obstruct a snow route.

B. The owner or operator of a vehicle removed from a snow route pursuant to this section shall be responsible for all costs incurred as a result of the removal of the vehicle.

(Ord. 1684, 1991.)

10.50.050 Snow route priorities and route designations.

A. Due to the specialized equipment, logistics, timing and limited resources available for snow removal operations only certain city streets are designated as snow routes. To further improve our efficiency each snow route is assigned a snow removal priority. Snow removal priority classifications are established to guide city snow removal operations on designated streets as referenced on the City of Sparks snow routes map. Maps are available at www.cityofsparks.us or the Public Works Department. Streets with the highest numerical priority shall have the first priority for service and on-going efforts will be maintained to keep higher priority streets open to the maximum extent possible. The following roadways are hereby established as snow routes and assigned a snow removal priority.

1. Priority 1 roadways are designated as primary snow routes. This designation indicates that the roadway will be plowed to maintain continuous all-weather access within the maximum capabilities of the city.

2. Priority 2 roadways are designated as secondary snow routes. This designation indicates that the road will be plowed to provide reasonable all-weather access as time, available funds and human resources permit.

B. All streets not referenced on the City of Sparks snow route map as Priority 1 or Priority 2 roadways included in section A are designated as non-snow routes. The City of Sparks snow removal operations are limited to Priority 1 and Priority 2 roadways referenced in section A, unless the assistant community services director & city engineer determines that emergency access or other special snow and ice conditions are present which require the utilization of city snow removal operations.

(Ord. 1851, 1995: Ord. 1804, 1993: Ord. 1684, 1991.)

10.50.060 Regional emergency snow removal operations.

The assistant community services director & city engineer is hereby authorized to direct the use of city resources in cooperation and coordination with the City of Reno and Washoe County to improve regional snow removal operations on major streets and to participate in emergency snow removal operations as needed to achieve regional emergency vehicle access.

(Ord. 1804, 1993.)



**INTERLOCAL
AGREEMENT**

**EMERGENCY SNOW
REMOVAL PLAN**

INTERLOCAL AGREEMENT FOR EMERGENCY SNOW REMOVAL PLAN

I PARTIES

The Parties to this mutual assistance plan are the City of Reno, City of Sparks, Washoe County, Regional Transportation Commission of Washoe County, Nevada Department of Transportation, Truckee Meadows Water Authority, Washoe County School District, and Washoe County Search & Rescue / AGC Contractors Auxiliary. (Parties)

II DEFINITIONS

Snow Emergency-means weather conditions which severely impede vehicular traffic in the Truckee Meadows and require the pooling of resources by the Parties in order to ensure the continuation of emergency and public safety agency operations on designated snow routes.

Snow Routes-include those streets depicted on Exhibit "A", the Regional Emergency Snow Route Map, to provide primary access and are otherwise streets essential for rapid movement, and response to the community by emergency vehicles.

Snow Emergency Commanders-implement, manage and supervise all snow removal activities as set forth herein. The contact information for Snow Emergency Commanders and Contractors is included in Exhibit "B", Regional Snow Emergency Commanders and Contractors-contact list. Snow Emergency Commanders (or their successors) are hereby designated as follows:

- City of Reno
 - Maintenance Manager
 - Crew Supervisor
- City of Sparks
 - Maintenance Services Manager
 - Maintenance Supervisor-Streets/Traffic
- Washoe County
 - Roads Director
 - Roads Supervisor
- Regional Transportation Commission of Washoe County
 - Facility Maintenance Supervisor
 - Maintenance Specialist
- Nevada Department of Transportation
 - Maintenance Manager
 - Asst. District Engineer - Maintenance
- Truckee Meadows Water Authority
 - Distribution & Generation Manager
 - Distribution Supervisor
 - Field Coordinator

Washoe County School District
Plant Facilities Administrator
Plant Facilities Director

Snow Emergency Contractors-provide the use of private contractor equipment for utilization during snow removal activities. Snow emergency contractors are not limited to AGC Contractors Auxiliary.

Snow emergency contractors (or their successors) are hereby designated as follows:

Washoe County Search & Rescue / AGC Contractors Auxiliary
Washoe County Sherriff – Search and Rescue
Sergeant
Deputy
Associated General Contractors
Safety Coordinator
Executive Director

III SNOW EMERGENCY RESPONSIBILITIES

Snow Emergency Commanders:

- Coordinate with counterparts to determine the status of the situation throughout the Truckee Meadows area.
- Activate and implement the plan, following a consensus determination that a snow emergency exists.
- Advise own organization's chain of command, including emergency management personnel.
- Provide resources as requested through public safety dispatch to assist in responding to medical emergencies.
- Coordinate the use of snow storage areas with government agencies and Snow Emergency Contractors.
- Decide when the snow emergency has abated, and cancel the plan, following a consensus determination.

City/County/State Management and Emergency Management Personnel:

- Monitor overall impacts of weather event and progress of emergency snow removal.
- Provide public information, news releases.
- The roll of Public Information Officer will be rotated annually between each government agency.
- Advise elected officials of emergency snow removal plan activation.

- If applicable, declare an emergency within their jurisdiction, including restrictions on snow emergency routes which may be invoked; advise state of formal declaration; activate emergency operations center (EOC).

Snow Emergency Contractors:

- Coordinate the use of private contractor equipment with snow emergency commanders.
- The Associated General Contractors will provide updated equipment rental rates annually to be included in the Interlocal Agreement For Emergency Snow Removal Plan. Use of contractors will not be limited to the contractor list provided by the Associated General Contractors.

IV CONDITIONS OF AGREEMENT

The Parties to this Interlocal Agreement do hereby agree as follows:

1. Conditions for Implementation of Emergency Snow Removal Plan

A snow emergency will be declared under the following conditions:

- Whenever a majority of the Snow Emergency Commanders meet, confer and agree to mobilize due to impending weather forecasts and/or on the basis of falling snow, sleet or freezing rain, that weather conditions could severely impede vehicular traffic on designated snow routes (see Section II, Definitions), thus threatening the continuation of emergency and public agency operations.

2. Declaration Process

- a. Snow Emergency Commanders will monitor conditions and have the authority to establish that the level of resources needed to address the snow conditions necessitate activating the Regional Snow Emergency Response Plan. City/County/State Management will declare a snow emergency, according to established emergency management procedures and will only declare a Regional Snow Emergency by consensus.
- b. City/County/State Managers will contact each other regarding implementation and any fine tuning necessary to meet needs of event.
- c. City/County/State will handle announcement according to individual Emergency Plans.

3. Snow Emergency Routes/Procedures

The Regional Emergency Snow Route Map supersedes all individual agency snow route maps during a declared Regional Snow Emergency.

Exhibit "A" depicts designated regional emergency snow routes under this plan and assigns responsibilities for snow clearing within the indicated areas. These

snow emergency routes will be those first plowed and kept open by the entity to which responsibility has been assigned.

Upon completion of each area, meaning that the designated regional routes are open and passable by emergency vehicles, the responsible entity may reassign its resources to other areas of responsibility (either another area designated by Exhibit "A" or to streets maintained by the entity which are not so designated). Each entity will be responsible for keeping the routes assigned by Exhibit "A" open until the snow emergency is canceled.

The decision to hire private forces to assist with snow removal in any area of this plan will be made by, authorized by, and chargeable to the Party within whose jurisdiction the area is located.

4. Second Phase of Assistance

If an agency (or agencies) continue to have streets which are impassable to emergency vehicles while other agencies have completed snow removal operations, a second phase of assistance may be granted under this Agreement in accordance with the following:

Additional assistance for streets not shown on Exhibit "A" of this Agreement may be granted if all snow commanders determine this action is needed due to extraordinary weather conditions to provide emergency vehicle access. Additional assistance may be requested only when an agency's (or agencies') resources are totally committed to emergency access snow removal operations and when additional resources are needed to improve emergency access. Agencies providing support shall have completed operations in accordance with their snow removal plan and will then make available additional resources to improve emergency access within the requesting agency.

5. Emergency Operations Center (EOC) / Regional Field Operations Center

The ESR Plan does not automatically call for operation of an EOC. The Parties may operate out of one Emergency Operations Center if City/County Management agrees that such an arrangement would facilitate implementation of the ESR Plan. If the Parties decide to operate out of one EOC, each Party will have a representative at the Center at all times.

To coordinate Emergency Snow Removal efforts and resources, the initial phase will include activating the Regional Field Operations Center, located in the main conference room at the City of Reno, Public Works Service Center, 1640 Commercial Row, Reno, Nevada.

6. Signing of Snow Emergency Routes; Enforcement of Operations Restrictions

Signing of snow emergency routes and the enforcement of operations restrictions and/or controls, if any, is the responsibility of the jurisdiction in which each route is located. Each jurisdiction will immediately cause to be cleared, as practicable, any vehicle parked or disabled in a position obstructing a travel lane, or otherwise impeding the safe and expeditious clearing of snow on designated routes.

During a declared snow emergency law enforcement can enforce travel restrictions throughout the region.

7. Termination-Emergency Snow Removal Operations

This plan shall remain in effect until canceled, by mutual agreement of the Snow Emergency Commanders, who shall subsequently notify City/County/State Management that emergency snow removal operations are complete. City/County/State Management will make corresponding public announcements according to their emergency plans, or other protocols.

8. Liability

Each Party to this agreement will be responsible for the actions of its employees regardless of the jurisdiction in which the accident occurs or a problem arises, and to the extent allowed by law hold the other parties harmless as indicated in this section. If a claim is filed with one of the public entity parties, the agency within whose jurisdiction the loss occurred will immediately contact the party whose employee was involved and provide all records and information related to the incident. Contractors performing snow removal activities during a regional snow emergency are required to provide certificates of insurance to the agency they are performing the work for.

9. Workers' Compensation

All Parties to this agreement are responsible for providing workers' compensation coverage for their respective employees.

10. Post-Incident Report

Each Party shall keep track of costs associated with this ESR Plan's implementation, including personnel, fuel, equipment maintenance and contracting expenses, for inclusion in a Post-Incident Report. This will be accomplished by utilizing maintenance management systems and appropriate Incident Command System forms.

11. Reimbursement

No Party shall be obligated to reimburse any other Party on account of any action taken or aid rendered under this Agreement, or for any use of material or damage to equipment incurred in the course of rendering emergency assistance as provided under this Agreement.

12. Annual Review / Training

The Parties will review this Agreement annually to determine any needed changes or modifications to both the procedures outlined under this Agreement and to Exhibit "A", the map depicting designated snow routes.

The Associated General Contractors will provide an updated equipment rental rate for review.

Participating agencies will send employees to the Regional Snow and Ice Control Workshop to be held in September or October of each year. When possible, agencies will work together to provide cross-training opportunities for maintenance personnel and supervisors.

13. Term of Agreement

This Agreement shall be effective upon passage and approval by the respective governing body of each Party to this Agreement. Any Party may withdraw from this Agreement by giving a thirty (30) day notice in writing to the other Parties.

IN WITNESS THEREOF, the Parties hereto have executed this agreement as of the day and year appearing by the signatures below:

CITY OF RENO,

By and through its City Council

By: [Signature] Date: 6-26-06
Mayor, City of Reno

Attest: [Signature] Date: 6-26-06
Reno City Clerk

Approved as to Form:
[Signature]
Reno City Attorney



CITY OF SPARKS,

By and through its City Council

By: Gene R. Munk
Mayor, City of Sparks

Date: 6/21/06

Attest: Therese Delan
Sparks City Clerk



Date: 6/21/06

Approved as to Form:

David Creehan
Sparks City Attorney

COUNTY OF WASHOE,

By and through its Board of County Commissioners

By: Robert M. Larkin
Chairperson, Washoe County
Board of Commissioners

Date: 07/03/06

Attest: Amy Harvey
County Clerk

Date: 07/03/06

Approved as to Form:

Melanie Foster
District Attorney

REGIONAL TRANSPORTATION COMMISSION

By: John R. Mayer
John R. Mayer, Chairman

Date: 8-18-06

Approved as to Form:

A. Shyne Paul
RTC Legal Counsel

TRUCKEE MEADOWS WATER AUTHORITY

By: *Seri Williams* Date: *6/21/06*
General Manager

Approved as to Form:

Michael D. Jay
TMWA Legal Counsel

WASHOE COUNTY SCHOOL DISTRICT

By and through its Board

By: *Bob Oster* Date: *7-27-06*
Chairperson

Approved as to Form:

J. Allicht
WCSD Legal Counsel

**REFUSED TO SIGN
NEVADA DEPARTMENT OF TRANSPORTATION**

By: _____ Date: _____

Approved as to Form:

Deputy Attorney General



WEATHER MONITORING & HISTORY

Weather Monitoring & History

Weather Monitoring and Forecasts

The Public Works Department utilizes many sources for weather forecast information. This includes a subscription to Weather Sentry by MXVISION for monitoring weather from office desktop and field laptop computers, as well as receiving weather alerts and warnings. In addition to Weather Sentry, Public Works staff monitors weather forecasts from the National Weather Service, the Nevada Department of Transportation RWIS sites, and local news forecasts.

Weather History

The Desert Research Institute Western Regional Climate Center provides historical weather information dating back sixty years. The reports included are from data collected at the Reno-Tahoe Airport. The data from this site is the most accurate, and the only source of official information in the region. The report for number of days per month with snowfall at varying thresholds and the report for maximum daily snowfalls by month provide an average for snow accumulations. The data shows that an average snow event is three inches of snow accumulation or less per event. The majority of snow events Public Works will respond to are average snow events. Major Snow Events are snow accumulations of six inches or more. A Snow event with accumulations of six inches of snow occurs about once every two years. These are the snow events that stretch the resources of the Public Works Department. The use of private contractors should be considered when snow accumulations reach six inches or more and there is a forecast for continuing snow and/or freezing temperatures. The City Manager or his designee will be informed of the need for additional resources and a decision will be made to authorize the use of private contractors. Emergency Snow Events are when snow accumulations reach ten inches with a forecast for continuing snow and/or freezing temperatures. A Snow event with accumulations of ten inches of snow occurs about once every six years. The City Manager or his designee will be informed of snow operations and a decision to declare a Snow Emergency will be made by the City Manager or his designee.

**Communication from Jim Ashby, Climatologist
Western Regional Climate Center, DRI**

Biselli, Mike wrote:

Hi Jim,

As we discussed, attached is the section of the Snow & Ice Control Plan that covers how we monitor weather and how we are defining average, major and emergency snow events. I will include the historical information you put together for us in this section. I appreciate your review and any comments or suggestions.

Thank you, mike

-----Original Message-----

From: Jim Ashby [mailto:Jim.Ashby@dri.edu]
Sent: Tuesday, July 08, 2008 10:39 AM
To: Biselli, Mike
Subject: Re: Weather section for PW Snow Plan

Mike,

It looks good. You might want to mention that the data is based on data from the Reno Airport. Also worth noting may be that a 6" event occurs about once every 2 years and a 10" event about once in 6 years.

Jim Ashby
Climatologist
Western Regional Climate Center
Desert Research Institute
2215 Raggio Parkway
Reno, NV 89512

Biselli, Mike wrote:

Jim, I will make the changes and include a note that data is from the Reno Airport. Would it be safe to say that the Reno Airport data is the most accurate information for the area?

Mike,

Not only is the Reno Airport the most accurate, it's the ONLY source of official data. It's also quite comparable to Sparks.

Jim

MAXIMUM DAILY SNOWFALLS BY MONTH (INCHES)

NO SNOWFALL MEASUREMENTS FROM MARCH 1996 TO NOVEMBER 2004

YEAR(S)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANN
1937-38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00p	0.00r	0.00	0.00	0.00	0.00z
1938-39	0.00	0.00	0.00	0.00	0.40	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
1939-40	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	1.10	0.50	0.00	0.00	1.10
1940-41	0.00	0.00	0.00	0.00	0.10	2.40	0.30	0.10	0.40	1.50	0.10	0.00	2.40
1941-42	0.00	0.00	0.00	0.00	0.00	8.00	0.60	1.40	0.60	0.00	0.60	0.00	8.00
1942-43	0.00	0.00	0.00	0.00	0.20	0.20	2.50	3.20	3.10	0.00	0.00	0.00	3.20
1943-44	0.00	0.00	0.00	0.00	1.00	5.20	1.40	3.70	3.20	0.70	0.00	0.00	5.20
1944-45	0.00	0.00	0.00	0.00	1.30	2.10	0.60	4.00	6.80	0.00	0.00	0.00	6.80
1945-46	0.00	0.00	0.00	0.00	0.30	3.00	1.80	2.40	3.60	0.00	0.00	0.00	3.60
1946-47	0.00	0.00	0.00	0.00	1.60	1.00	2.90	0.00	0.00	0.00	0.00	0.00	2.90
1947-48	0.00	0.00	0.00	0.00	3.00	1.00	0.00	2.00	0.10	0.80	0.00	0.00	3.00
1948-49	0.00	0.00	0.00	0.00	0.00	3.50	5.10	2.60	2.00	0.00	0.00	0.00	5.10
1949-50	0.00	0.00	0.00	0.60	1.00	2.50	5.70	0.10	1.20	1.40	0.00	0.00	5.70
1950-51	0.00	0.00	0.00	0.00	0.00	0.30	7.40	1.50	1.90	0.00	0.00	0.00	7.40
1951-52	0.00	0.00	0.00	0.00	2.20	4.50	4.40	0.60	13.60	0.00	0.00	0.00	13.60
1952-53	0.00	0.00	0.00	0.00	0.80	4.00	0.40	2.00	0.40	2.00	0.00	0.00	4.00
1953-54	0.00	0.00	0.00	0.00	1.00	2.10	3.00	3.90	5.80	0.80	0.00	0.00	5.80
1954-55	0.00	0.00	0.00	0.00	0.00	2.20	4.10	4.70	0.20	0.80	2.50	0.00	4.70
1955-56	0.00	0.00	0.00	0.00	1.90	5.00	11.00	1.00	0.70	1.00	0.00	0.00	11.00
1956-57	0.00	0.00	0.00	1.00	0.00	0.40	3.50	0.00	0.20	0.10	0.00	0.00	3.50
1957-58	0.00	0.00	0.00	2.00	1.00	2.80	1.00	2.40	2.50	4.20	0.00	0.00	4.20
1958-59	0.00	0.00	0.00	0.00	3.30	0.00	0.50	13.20	0.10	0.00	0.10	0.00	13.20
1959-60	0.00	0.00	0.00	0.00	0.00	1.10	3.50	1.70	0.00	0.60	0.00	0.00	3.50
1960-61	0.00	0.00	0.00	0.40	2.00	0.00	1.50	0.00	0.80	0.30	0.00	0.00	2.00
1961-62	0.00	0.00	0.00	0.00	6.40	0.50	2.20	4.00	5.20	0.00	9.00	0.00	9.00
1962-63	0.00	0.00	0.00	0.00	0.00	0.00	1.70	0.00	1.80	2.60	0.00	0.00	2.60
1963-64	0.00	0.00	0.00	0.00	3.10	1.00	3.00	1.00	4.00	4.00	7.00	0.00	7.00
1964-65	0.00	0.00	0.00	0.00	3.30	4.40	2.60	0.00	3.10	0.00	0.00	0.00	4.40
1965-66	0.00	0.00	0.00	0.00	2.20	3.00	0.00	1.00	0.40	0.00	0.00	0.00	3.00
1966-67	0.00	0.00	0.00	0.00	0.00	5.00	11.20	0.00	7.30	2.40	1.50	0.00	11.20
1967-68	0.00	0.00	0.00	0.00	0.00	1.00	10.90	1.80	2.10	0.00	0.00	0.00	10.90
1968-69	0.00	0.00	0.00	0.00	1.30	3.30	6.00	8.00	1.70	0.30	0.00	0.00	8.00
1969-70	0.00	0.00	0.00	0.00	0.00	2.40	0.00	0.60	1.20	1.80	0.00	0.00	2.40
1970-71	0.00	0.00	0.00	0.20	0.00	9.40	4.00	3.00	4.40	1.90	5.00	0.00	9.40
1971-72	0.00	0.00	0.00	3.70	0.20	14.90	4.70	0.30	0.20	0.90	0.00	0.00	14.90
1972-73	0.00	0.00	0.00	0.00	0.00	4.80	3.40	6.60	2.40	0.30	0.00	0.00	6.60
1973-74	0.00	0.00	0.00	0.00	2.50	3.90	4.50	1.00	4.60	1.40	0.00	0.00	4.60
1974-75	0.00	0.00	0.00	0.00	0.00	2.40	1.90	6.80	5.00	2.50	0.90	0.00	6.80
1975-76	0.00	0.00	0.00	0.00	1.70	0.00	0.30	5.10	3.00	2.30	0.00	0.00	5.10
1976-77	0.00	0.00	0.00	0.00	0.00	0.50	0.40	1.00	0.70	0.00	1.40	0.00	1.40
1977-78	0.00	0.00	0.00	0.00	0.50	2.00	0.30	3.80	0.20	0.10	0.40	0.00	3.80
1978-79	0.00	0.00	0.00	0.80	4.00	5.60	2.60	1.40	0.20	1.10	0.30	0.00	5.60
1979-80	0.00	0.00	0.00	0.30	0.00	1.10	2.10	4.20	3.70	1.10	0.00	0.00	4.20
1980-81	0.00	0.00	0.00	0.00	0.00	0.00	2.40	0.00	1.40	0.00	0.00	0.00	2.40
1981-82	0.00	0.00	0.00	1.10	1.40	0.10	4.30	1.30	2.50	0.40	0.50	0.00	4.30
1982-83	0.00	0.00	1.50	0.00	3.30	1.00	1.50	0.60	0.90	2.30	3.50	0.00	3.50
1983-84	0.00	0.00	0.00	0.00	3.40	0.30	3.50	1.20	0.10	0.00	0.00	0.00	3.50
1984-85	0.00	0.00	0.00	3.20	2.60	0.70	2.30	0.50	2.10	0.00	0.00	0.00	3.20
1985-86	0.00	0.00	0.00	1.20	15.20	1.30	0.00	0.00	1.00	0.40	0.00	0.00	15.20
1986-87	0.00	0.00	0.00	0.00	0.20	0.50	0.80	6.20	1.50	0.00	0.00	0.00	6.20
1987-88	0.00	0.00	0.00	0.00	0.80	2.00	4.60	0.00	0.00	0.00	0.00	0.00	4.60
1988-89	0.00	0.00	0.00	0.00	4.00	6.60	1.60	6.40	2.00	0.80	0.00	0.00	6.60
1989-90	0.00	0.00	0.00	0.00	0.00	0.00	2.00	18.00	1.50	0.00	0.00	0.00	18.00
1990-91	0.00	0.00	0.00	0.00	0.40	1.70	0.10	0.00	2.30	0.00	0.90	0.00	2.30
1991-92	0.00	0.00	0.00	0.00	4.00	0.70	0.30	1.10	0.00	0.00	0.00	0.00	4.00
1992-93	0.00	0.00	0.00	0.00	0.00	9.60	4.20	3.00	0.00	0.00	0.00	0.00	9.60
1993-94	0.00	0.00	0.00	0.00	0.00	0.20	0.40	1.60	0.00	0.00	0.00	0.00	1.60
1994-95	0.00	0.00	0.00	0.00	3.50	0.30	4.20	1.10	1.20	0.50	0.00	0.20	4.20
1995-96	0.00	0.00	0.00	0.00	0.00	0.00c	1.00	2.10w					

2004-05	9999.00z	9999.00z	9999.00z	9999.00z	9999.00z	16.40	10.50	0.00	0.00	0.00	0.00	0.00	16.40z
2005-06	0.00	0.00	0.00	0.00	0.00	3.60	2.70	4.00	9999.00z	0.70	0.00	0.00	4.00z
2006-07	0.00	0.00	0.00	0.00	0.00	1.80	1.20	3.70	0.00	0.10	0.00	0.00	3.70
2007-08	0.00	0.00	0.20	0.00	0.00	2.00	5.00						
2008-09	0.00	0.00	0.00	1.00	0.00	2.20	.050	0.40	1.00	3.00	0.00	0.00	3.00
2009-10	0.00	0.00	0.00	0.10	0.20	7.00	1.30	10.9	0.00	0.50	0.00	0.00	10.9
MEAN	0.00	0.00	0.03	0.23	1.37	2.63	2.79	2.50	1.93	0.70	0.54	0.00	5.77
MAX	0.00	0.00	1.50	3.70	15.20	16.40	11.20	18.00	13.60	4.20	9.00	0.20	18.00

RENO WSFO AIRPORT, NV

NUMBER OF DAYS PER MONTH WITH SNOWFALL AT VARYING THRESHOLDS.

NO SNOWFALL MEASUREMENTS WERE TAKEN FROM MARCH 1996 TO NOVEMBER 2004

NUMBER OF DAYS PER MONTH WITH SNOWFALL >= 2.0 INCHES

YEAR(S)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANN
1937-38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00p	0.00r	0.00	0.00	0.00	0.00b
1938-39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1939-40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1940-41	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1941-42	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00
1942-43	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	1.00	0.00	0.00	0.00	4.00
1943-44	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	0.00	0.00	4.00
1944-45	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	3.00	0.00	0.00	0.00	5.00
1945-46	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	2.00	0.00	0.00	0.00	4.00
1946-47	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1947-48	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00
1948-49	0.00	0.00	0.00	0.00	0.00	2.00	3.00	1.00	1.00	0.00	0.00	0.00	7.00
1949-50	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	2.00
1950-51	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1951-52	0.00	0.00	0.00	0.00	1.00	2.00	5.00	0.00	6.00	0.00	0.00	0.00	14.00
1952-53	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	3.00
1953-54	0.00	0.00	0.00	0.00	0.00	1.00	1.00	2.00	2.00	0.00	0.00	0.00	6.00
1954-55	0.00	0.00	0.00	0.00	0.00	1.00	2.00	1.00	0.00	0.00	1.00	0.00	5.00
1955-56	0.00	0.00	0.00	0.00	0.00	2.00	3.00	0.00	0.00	0.00	0.00	0.00	5.00
1956-57	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1957-58	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	2.00	2.00	0.00	0.00	7.00
1958-59	0.00	0.00	0.00	0.00	1.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	4.00
1959-60	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	4.00
1960-61	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1961-62	0.00	0.00	0.00	0.00	1.00	0.00	1.00	4.00	3.00	0.00	1.00	0.00	10.00
1962-63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00
1963-64	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	3.00	0.00	8.00
1964-65	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	4.00
1965-66	0.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00
1966-67	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	2.00	2.00	0.00	0.00	6.00
1967-68	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00
1968-69	0.00	0.00	0.00	0.00	0.00	2.00	2.00	5.00	0.00	0.00	0.00	0.00	9.00
1969-70	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1970-71	0.00	0.00	0.00	0.00	0.00	2.00	3.00	1.00	2.00	0.00	1.00	0.00	9.00
1971-72	0.00	0.00	0.00	1.00	0.00	4.00	1.00	0.00	0.00	0.00	0.00	0.00	6.00
1972-73	0.00	0.00	0.00	0.00	0.00	2.00	2.00	1.00	1.00	0.00	0.00	0.00	6.00
1973-74	0.00	0.00	0.00	0.00	1.00	2.00	2.00	0.00	1.00	0.00	0.00	0.00	6.00
1974-75	0.00	0.00	0.00	0.00	0.00	1.00	0.00	4.00	2.00	1.00	0.00	0.00	8.00
1975-76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	3.00	1.00	0.00	0.00	9.00
1976-77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1977-78	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00
1978-79	0.00	0.00	0.00	0.00	2.00	2.00	1.00	0.00	0.00	0.00	0.00	0.00	5.00
1979-80	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	0.00	0.00	0.00	4.00
1980-81	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1981-82	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	1.00	0.00	0.00	0.00	4.00

1982-83	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	4.00
1983-84	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	3.00
1984-85	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	4.00
1985-86	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1986-87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1987-88	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00	3.00
1988-89	0.00	0.00	0.00	0.00	1.00	1.00	0.00	2.00	1.00	0.00	0.00	0.00	5.00
1989-90	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	3.00
1990-91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
1991-92	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1992-93	0.00	0.00	0.00	0.00	0.00	2.00	6.00	3.00	0.00	0.00	0.00	0.00	11.00
1993-94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1994-95	0.00	0.00	0.00	0.00	4.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	6.00
1995-96	0.00	0.00	0.00	0.00	0.00	0.00c	0.00	1.00w	0.00z	0.00z	0.00z	0.00z	0.00e
1996-97	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
1997-98	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
1998-99	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
1999-00	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
2000-01	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
2001-02	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
2002-03	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
2003-04	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00l
2004-05	0.00z	0.00z	0.00z	0.00z	0.00z	2.00	3.00	0.00	0.00	0.00	0.00	0.00	5.00e
2005-06	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00z	0.00	0.00	0.00	3.00a
2006-07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
2007-08	0.00	0.00	0.00	0.00	0.00	1.00	4.00	0.00z	0.00z	0.00z	0.00z	0.00z	5.00e
2008-09	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	1.00	0.00	0.00	3.00
2009-10	0.00	0.00	0.00	0.00	0.00	3.00	0.00	2.00	0.00	0.00	0.00	0.00	5.00
MEAN	0.00	0.00	0.00	0.05	0.35	0.78	1.06	0.80	0.68	0.16	0.11	0.00	4.03
MAX	0.00	0.00	0.00	1.00	4.00	4.00	6.00	5.00	6.00	2.00	3.00	0.00	14.00

NUMBER OF DAYS PER MONTH WITH SNOWFALL >= 3.0 INCHES

YEAR(S)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANN
1937-38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00p	0.00r	0.00	0.00	0.00	0.00b
1938-39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1939-40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1940-41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1941-42	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
1942-43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	3.00
1943-44	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00	1.00	0.00	0.00	0.00	4.00
1944-45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	0.00	4.00
1945-46	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	2.00
1946-47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1947-48	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1948-49	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00	3.00
1949-50	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1950-51	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1951-52	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	3.00	0.00	0.00	0.00	6.00
1952-53	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1953-54	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	2.00	0.00	0.00	0.00	5.00
1954-55	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00
1955-56	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	4.00
1956-57	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1957-58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	2.00
1958-59	0.00	0.00	0.00	0.00	1.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00
1959-60	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	3.00
1960-61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1961-62	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00	0.00	1.00	0.00	5.00
1962-63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1963-64	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	6.00
1964-65	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	3.00

1948-49	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00
1949-50	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1950-51	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1951-52	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00	4.00
1952-53	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1953-54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
1954-55	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00
1955-56	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00	3.00
1956-57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1957-58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00
1958-59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
1959-60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1960-61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1961-62	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	4.00
1962-63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1963-64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	3.00
1964-65	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1965-66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1966-67	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00	4.00
1967-68	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1968-69	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	4.00
1969-70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1970-71	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	4.00
1971-72	0.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.00	0.00	3.00
1972-73	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00
1973-74	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	2.00
1974-75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	2.00
1975-76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1976-77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1977-78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1978-79	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
1979-80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1980-81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1981-82	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1982-83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1983-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1984-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1985-86	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1986-87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1987-88	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1988-89	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	3.00
1989-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1990-91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1991-92	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1992-93	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00	3.00
1993-94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1994-95	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1995-96	0.00	0.00	0.00	0.00	0.00	0.00c	0.00	0.00w	0.00z	0.00z	0.00z	0.00z	0.00e
1996-97	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
1997-98	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
1998-99	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
1999-00	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
2000-01	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
2001-02	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
2002-03	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
2003-04	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z
2004-05	0.00z	0.00z	0.00z	0.00z	0.00z	2.00	2.00	0.00	0.00	0.00	0.00	0.00	4.00e
2005-06	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00z	0.00	0.00	0.00	0.00	1.00a
2006-07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007-08	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00z	0.00z	0.00z	0.00z	0.00z	1.00e
2008-09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2009-10	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00
MEAN	0.00	0.00	0.00	0.00	0.08	0.27	0.38	0.25	0.18	0.03	0.05	0.00	1.22

MAX	0.00	0.00	0.00	0.00	1.00	2.00	2.00	2.00	2.00	1.00	1.00	0.00	4.00
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NUMBER OF DAYS PER MONTH WITH SNOWFALL >= 5.0 INCHES

YEAR(S)	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANN
1937-38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00p	0.00r	0.00	0.00	0.00	0.00b
1938-39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1939-40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1940-41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1941-42	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
1942-43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1943-44	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1944-45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
1945-46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1946-47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1947-48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1948-49	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1949-50	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1950-51	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1951-52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
1952-53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1953-54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
1954-55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1955-56	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00	3.00
1956-57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1957-58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1958-59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
1959-60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1960-61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1961-62	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00
1962-63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1963-64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
1964-65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1965-66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1966-67	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	3.00
1967-68	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00
1968-69	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	3.00
1969-70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1970-71	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00
1971-72	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1972-73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1973-74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1974-75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	2.00
1975-76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1976-77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1977-78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1978-79	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1979-80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1980-81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1981-82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1982-83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1983-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1984-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1985-86	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1986-87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1987-88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1988-89	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00
1989-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
1990-91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1991-92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1992-93	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
1993-94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1994-95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995-96	0.00	0.00	0.00	0.00	0.00	0.00c	0.00	0.00w	0.00z	0.00z	0.00z	0.00z	0.00e



SNOW & ICE CONTROL EQUIPMENT

Snow & Ice Control Equipment

UNIT #	YEAR	UNIT DESCRIPTION
503	2007	Sterling 10 CY Dump Truck (sander & 11 ft. snow plow & 2000 gallon brine applicator)
524	2007	Sterling 10 CY Dump Truck (sander & 11 ft. snow plow & 2000 gallon brine applicator)
536	2007	Sterling 10 CY Dump Truck (sanding capability)
512	1999	International 10 CY Dump Truck (sander & 11 ft. snow plow)
514	1999	International 10 CY Dump Truck (sander & 11 ft. snow plow)
521	1997	Volvo 10 CY Dump Truck (sander & 11 ft. snow plow & 2000 gallon brine applicator)
511	1996	International 5 CY Dump Truck (sander & 10 ft. snow plow)
513	1996	International 5 CY Dump Truck (sander & 10 ft. snow plow)
5101	2013	International 10 CY Dump Truck (sander & 11 ft. snow plow & 2000 gallon brine applicator)
5102	2013	International 10 CY Dump Truck (sander & 11 ft. snow plow & 2000 gallon brine applicator)
515	2005	Ford F450, Small Dump Truck (sander, 8.5 ft. plow)
542	2005	Ford F450, Small Dump Truck (sander & 8.5 ft. plow)
35	1999	GMC C6500, Medium Dump Truck (sander & 11 ft. plow)

733	2000	Caterpillar Front-end Loader
736	1998	Caterpillar Front-end Loader
723	2001	Caterpillar Loader/Backhoe
721	2010	Caterpillar Mini-Excavator
744	1993	Ford Tractor
764	2000	Bobcat Front-end Loader
767	1998	Bobcat Front-end Loader
995	2005	Polaris Quad with V-plow

Snow & Ice Control Equipment



**10 CY Dump Truck
with sander & snow plow**



**5 CY Dump Truck
with sander & snow plow**



Front-end Loader



Backhoe/loader



Quad with V-plow



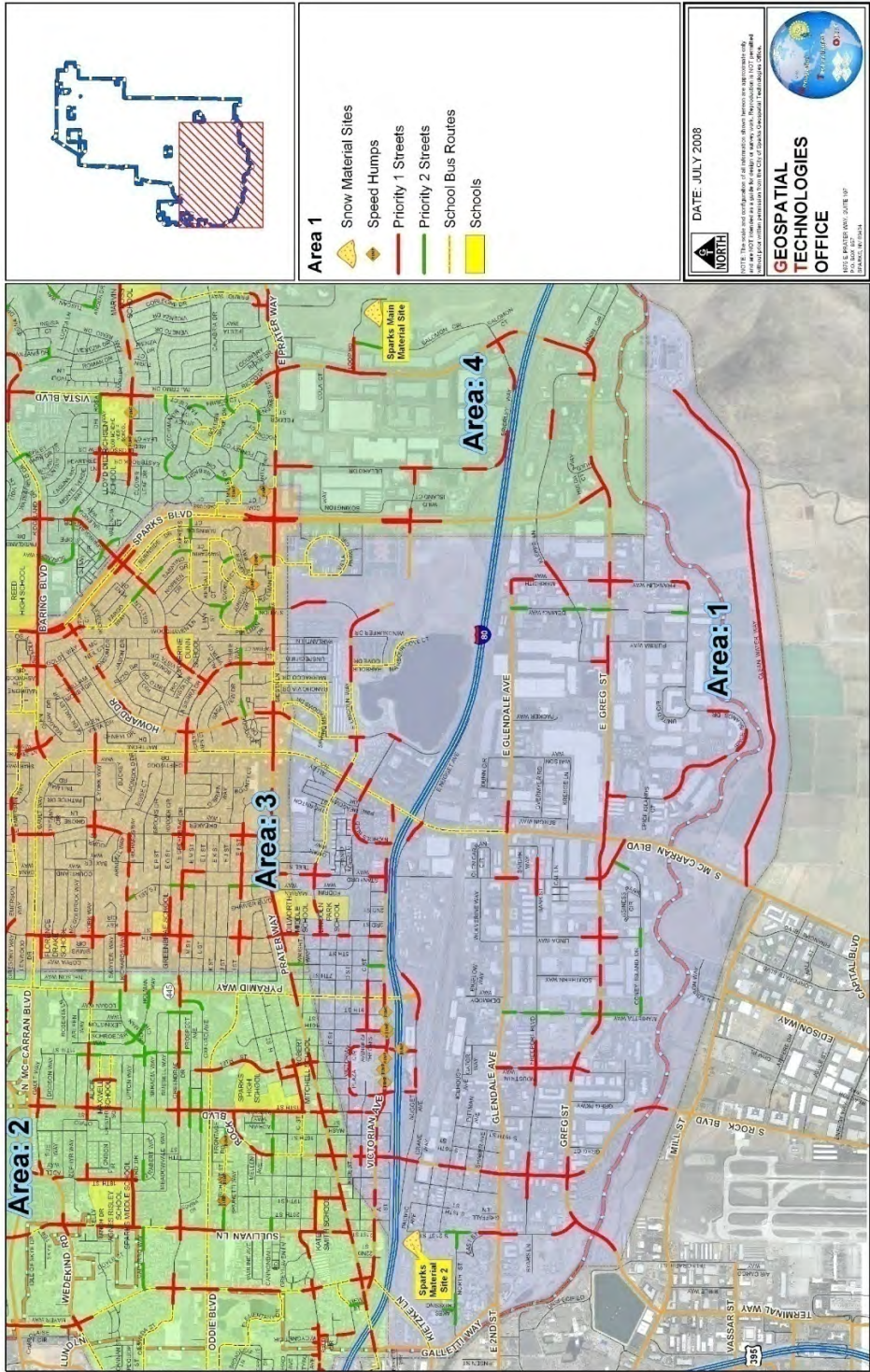
Bobcat loader



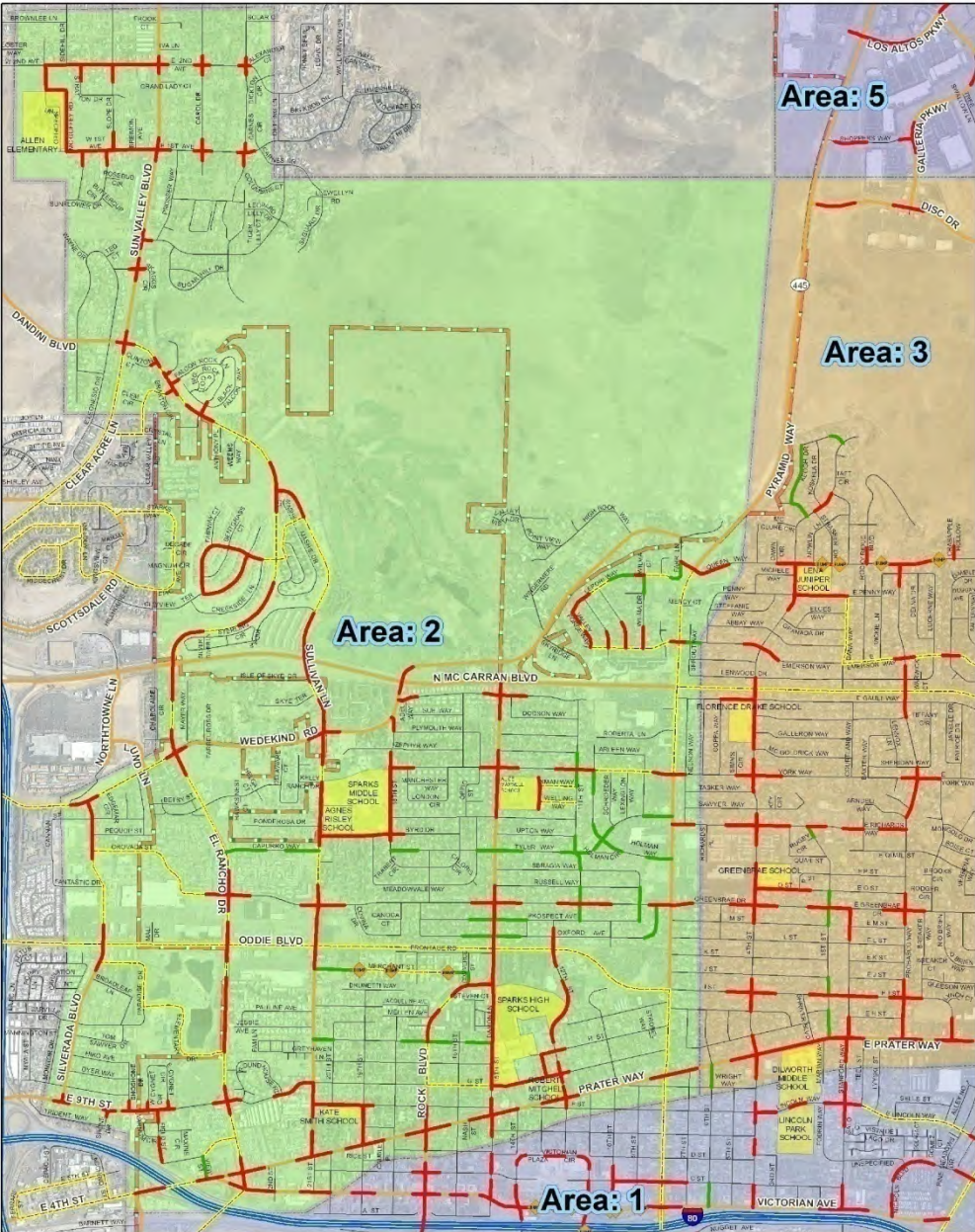
SNOW ROUTES

**Snow Route Maps
&
Routes by Street Name**

Snow Route 1



Snow Route 2



DATE: JULY 2008

NORTH

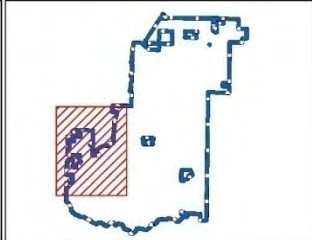
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GEOSPATIAL TECHNOLOGIES OFFICE

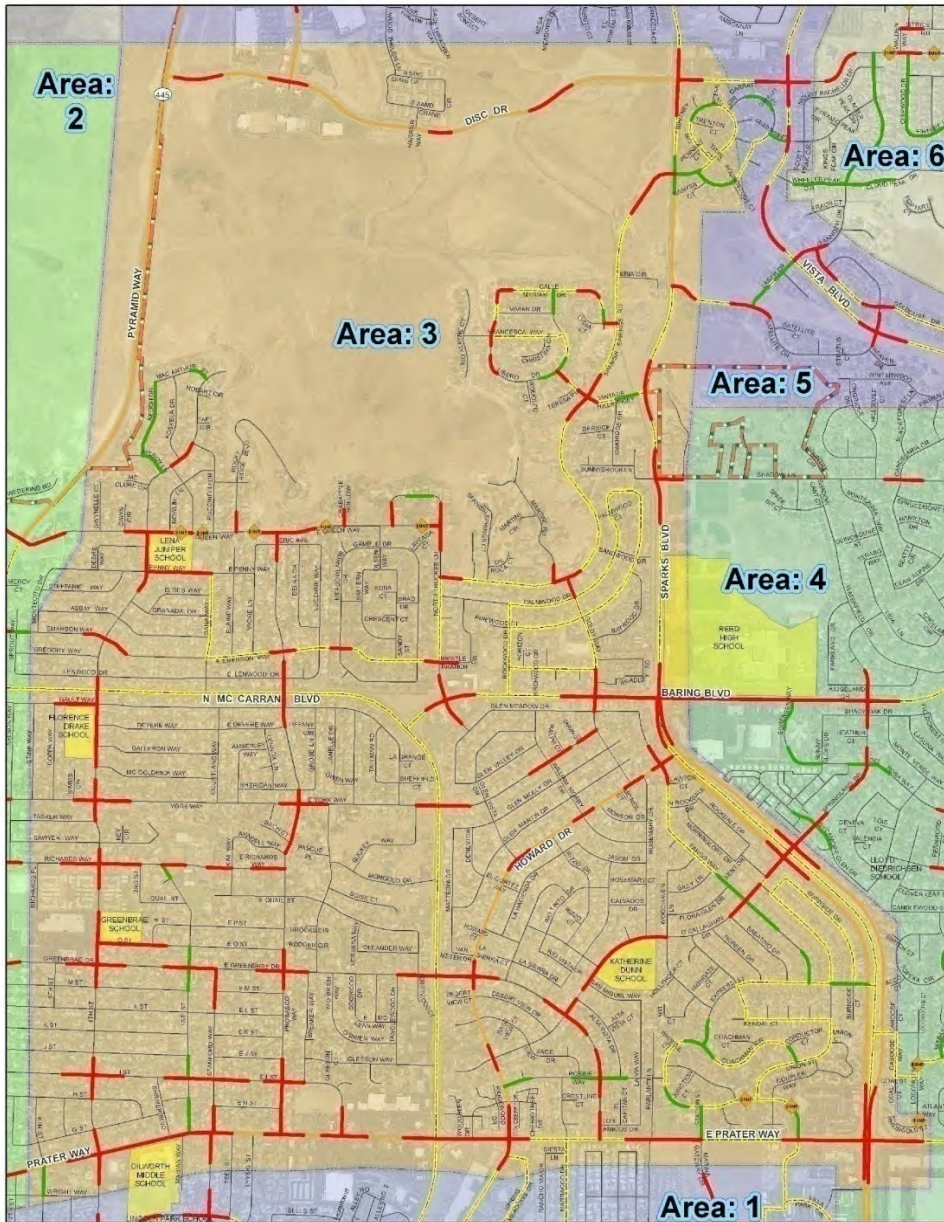
1075 E. PRATER WAY, SUITE 107
P.O. BOX 897
SPARKS, NV 89424

Area 2

- Snow Material Sites
- Speed Humps
- Priority 1 Streets
- Priority 2 Streets
- School Bus Routes
- Schools



Snow Route 3



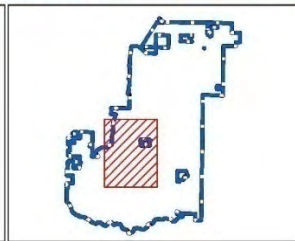
DATE: JULY 2008

GEOSPATIAL TECHNOLOGIES OFFICE

NOTE: E. PRATER WAY, ROUTE 117
P.O. BOX 607
SPARKS, NV 89434

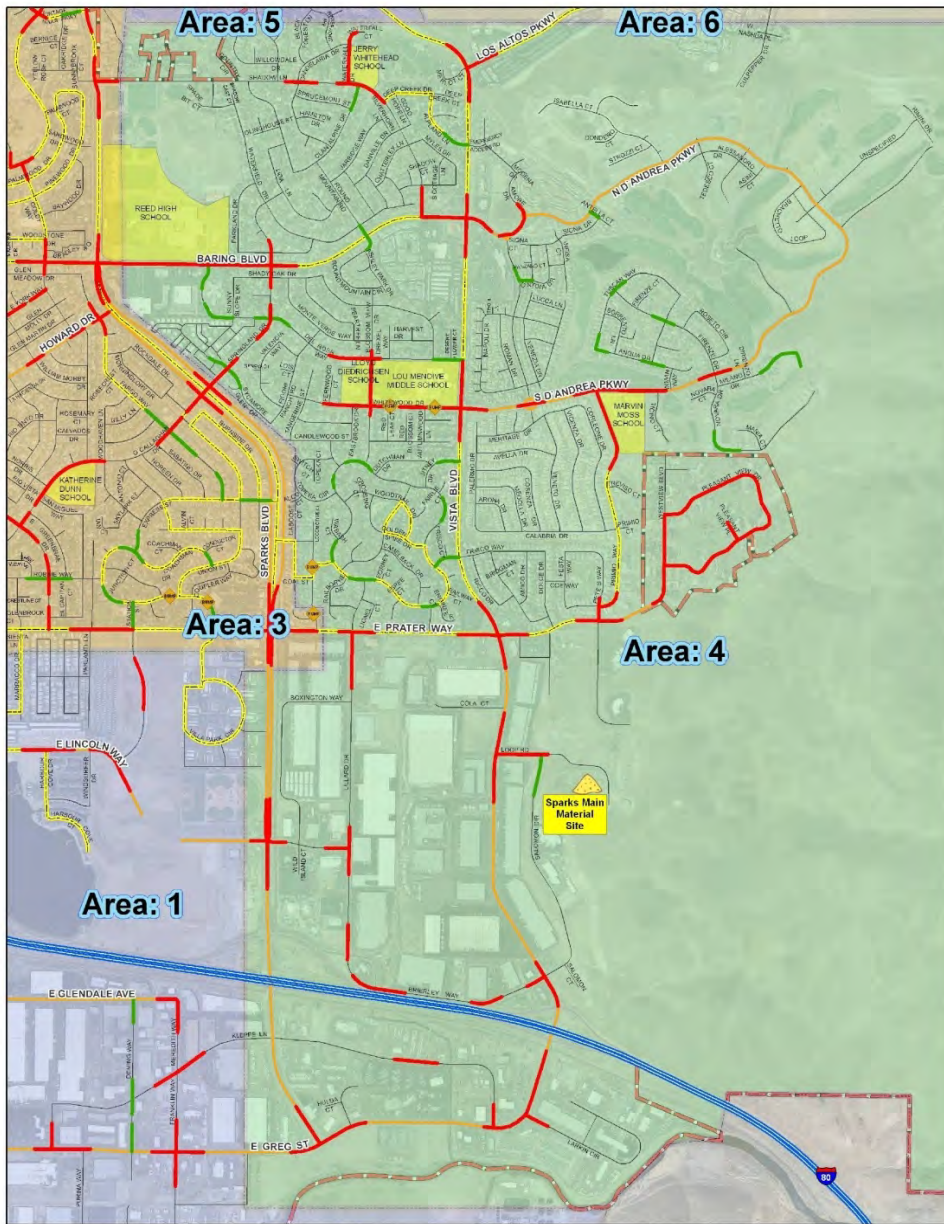
Area 3








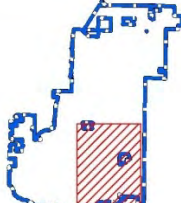
- Snow Material Sites
- Speed Humps
- Priority 1 Streets
- Priority 2 Streets
- School Bus Routes
- Schools



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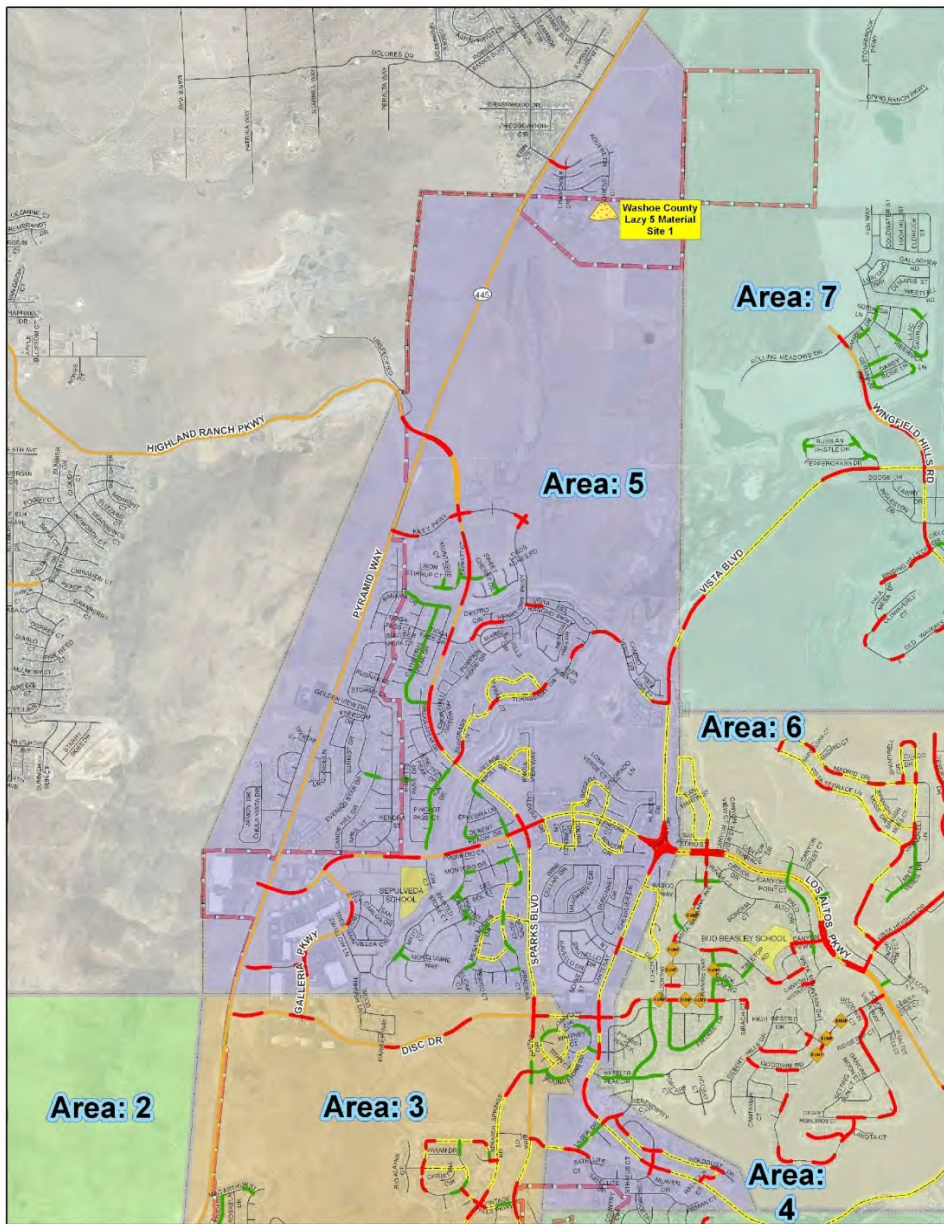
Snow Route 4








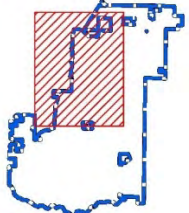


<p>DATE: JULY 2008</p> <p>NORTH</p> <p><small>NOTE: The scale and configuration of all information shown herein are approximate only and are NOT intended as a guide for design or survey work. Reproduction is NOT permitted without prior written permission from the City of Sparks Geospatial Technologies Office.</small></p> <p>GEOSPATIAL TECHNOLOGIES OFFICE</p> <p><small>1075 E. PRATER WAY, SUITE 107 P.O. BOX 607 SPARKS, NV 89414</small></p> 	<p>Area 4</p> <ul style="list-style-type: none">  Snow Material Sites  Speed Humps  Priority 1 Streets  Priority 2 Streets  School Bus Routes  Schools 	
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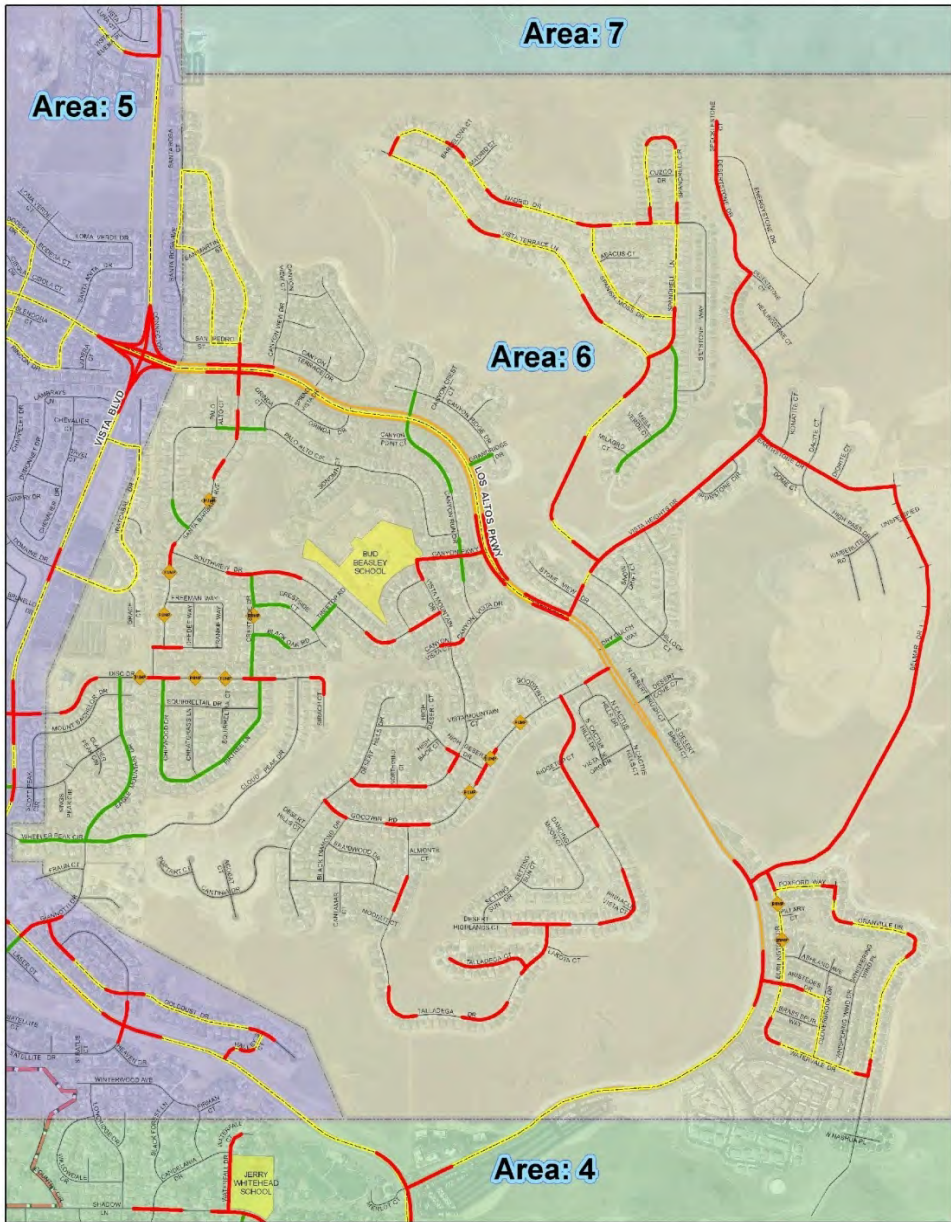
Snow Route 5








<p>DATE: JULY 2008</p> <p>NORTH</p> <p><small>NOTE: The scale and configuration of all information shown herein are approximate only and are NOT intended as a guide for design or survey work. Reproduction is NOT permitted without prior written permission from the City of Sparks Geospatial Technologies Office.</small></p> <p>GEOSPATIAL TECHNOLOGIES OFFICE</p> <p><small>1075 E. PRATER HWY, SUITE 107 P.O. BOX 607 SPARKS, NV 89414</small></p> 	<p>Area 5</p> <ul style="list-style-type: none">  Snow Material Sites  Speed Humps  Priority 1 Streets  Priority 2 Streets  School Bus Routes  Schools 	
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Snow Route 6



<p>NORTH</p> <p>DATE: JULY 2008</p> <p><small>NOTE: The scale and configuration of all information shown herein are approximate only and are NOT intended as a guide for design or survey work. Reproduction is NOT permitted without prior written permission from the City of Sparks Geospatial Technologies Office.</small></p> <p>GEOSPATIAL TECHNOLOGIES OFFICE</p> <p><small>1075 E. PRATER HWY, SUITE 107 P.O. BOX 607 SPARKS, NV 89414</small></p> 	<p>Area 6</p> <ul style="list-style-type: none">  Snow Material Sites  Speed Humps  Priority 1 Streets  Priority 2 Streets  School Bus Routes  Schools 	
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CITY OF SPARKS SNOW ROUTES BY STREET

PRIORITY 1 ROADS

Route 1

Cleanwater Way
Greg Street
So. 21st Street
Freeport Blvd: intersections
E. Glendale Avenue: intersections
Meredith Way at Glendale
Franklin Way at Greg and Spice Island Drive
Spice Island Drive: curves and shady spots; intersections
S. Stanford: from McCarran Blvd. to Glen Carran Cir.
S. Rock Blvd: from Mill St. to Prater Way
Victorian Ave.
Nugget Ave.
Victorian Plaza Circle
C St: intersections; behind old bus waiting area
4th Street: Victorian to Prater
Lincoln Way
Howard Drive: intersections
Marina Gateway Drive
Industrial Way
Nichols Blvd

Route 2

Prater Way: Galletti Way to 6th Street
El Rancho Drive
Sullivan Lane
Rock Blvd
Sun Valley Blvd: intersections
2nd Avenue: Sun Valley Blvd to Whittemore Way
Whittemore Way to McGuffey Road – past Allen Elementary
1st Avenue: McGuffey Road to Sun Valley Blvd
Silverada Blvd: E. 9th to Wedekind; intersections
Wedekind Road: curves and intersections
Byrd Drive
18th Street: Byrd to York
Greenbrae Drive: Silverada to Pyramid; main intersections
York Way: intersections
G Street: El Rancho to Sullivan; 15th to 12th
F Street: Sullivan to 18th

15th Street: D Street to Rock
12th Street: F Street to Oddie
1st Avenue: intersections
2nd Avenue: intersections
Behind Alice Maxwell School
Wildcreek Drive: Fairway to City View
Off Emerson: Valley Forge, Holman, Bunker Hill, Wilma
Queen Way: Farr to Gwenelle

Route 3

Prater Way: Pyramid to Sparks Blvd
Greenbrae: 5th to Prater Way
1st Street: Pyramid to Prater
4th Street: Wright Way to Puccinelli
Richards Way
York Way: intersections; Pyramid to Goldy
Gault Way: Florence Drake School
Emerson Way: Montecito to N. Truckee
Penny Way: behind Lena Juniper School
Queen Way: Dawn to N. Truckee
Probasco Way: Prater to Queen
Rocky Ridge
Teglia
N. Truckee Lane: Queen to Glen Meadow
Baring Blvd: McCarran to Sparks Blvd
Sparks Blvd: Prater to Disc
Spanish Springs Road at N. Truckee, Goldy, Vintage Hills, Sparks Blvd
Howard Drive: intersections
O'Callaghan Drive: Greenbrae to Sparks Blvd
Liberio Drive
Vintage Hills Pkwy
Calle Myriam Drive
Disc Drive: Sparks Blvd to Pyramid

Route 4

Sparks Blvd: Greg to Prater
Greg Street: Sparks Blvd to Vista
Lincoln Way: Sparks Blvd to Lillard
Lillard Drive to Brierley, Brierley to Vista
Vista Blvd: Larkin to S. Los Altos Pkwy
Prater Way: Sparks Blvd to Westview
Pleasant View Drive, Pleasant View Place, Westview
Primio Way: by Marvin Moss School also Prater
Baring Blvd: Sparks Blvd to N. D'Andrea Pkwy
Del Rosa: by Diedrichsen and Mendive
Whitewood Drive

Blossom View Drive
S. D'Andrea to N. D'Andrea just past Novarra
Shadow Lane: Sparks Blvd to Baring
Waterfall Drive by Jerry Whitehead School
Loop Road to Gandolfo
Kleppe Lane: Sparks Blvd to Greg by bus yard
Larkin Circle at Greg
Los Altos at Vista
Vista Blvd: Vista Luna Drive to S. Wingfield Pkwy
Wingfield Hills Road: Rolling Meadows Drive to S. Wingfield Pkwy
Singing Hills Drive
Old Waverly Court, Old Waverly Drive
Ambush Ridge Drive
Solstice Drive
Falcon Ridge Drive
Single Foot Court
Oxley Drive
Ten Mile Drive
Banestone Road
Poco Bueno at Wingfield Springs Road
Wingfield Springs: Silverton to Calle De Oro
South Florentine
Calle De Oro Pkwy
Jacinto Avenue

Route 5

Vista Blvd: S. Los Altos Pkwy to just past Vista Del Rancho Pkwy
Vista Del Rancho Pkwy
Halley's Court
Golddust Drive
Satellite Drive
Giannotti Drive
Disc Drive: Sparks Blvd to just past Vista
Shoppers Way
Galleria Pkwy
N. Los Altos Pkwy: Pyramid to Vista Blvd
Sparks Blvd: Disc Drive to Pyramid Hwy
Kiley Pkwy
Sawgrass Way
Turnberry Drive
Vista Del Rancho Pkwy
Henry Orr Pkwy
Erin Drive
Vista Blvd: S. Wingfield to Campello Drive
Campello Drive: Hubble to Generation
Hubble Drive: Quantum Court to La Posada
La Posada: Hubble to Desert Vista

Eagle Nest Road at La Posada
Desert Vista Drive
Bareback Court
Bareback Drive
Desert Fox Drive
Cobra Court
Barbados Drive
Tobago Drive
Jacmiel Court
May Pen Drive

Route 6

Disc Drive: Vista to Pyramid
Los Altos Pkwy: Vista to Vista
Belmar Drive
Santa Barbara
Southview Drive
Canyon Pkwy
Vista Terrace Lane
Vista Height Drive
Earthstone Drive
Desert Stone Drive
Talladega Drive
Talladega Court
Desert Highlands Drive
Goodwin Road
Vista Mountain Drive
Watervale
Culpepper
Granville
Vanguard
Burlington
Madrid Drive
Spandrell Circle

PRIORITY 2 ROADS

Route 1

Marietta Way
Coney Island Drive
Deming Way
6th Street at Victorian and C Street
PW Maintenance Yard: entrance and exit
Street leading to Mental Health Institute

Route 2

View Street
1st Street
Merchant Street
Commerce Street
Capurro Way
Tyler Way
Prospect Avenue
Oxford Avenue
11th Street
Holman Way
Lepori Way
Farr Lane
Emerson Way at Sprout Way

Route 3

6th Street at Prater
Keogh Drive
Milroy Lane
MacArthur Street
1st Street: Prater to Richards
Northwood Drive
Libero Drive
Robbie Way: Howard to La Via
Fargo Way
Express Street
Station Street
Pullman at Prater
Coachman Drive
Vintage Hills Pkwy
Whitney Circle
Roundstone Drive

Route 4

Salomon Circle

Wabash Circle
Frisco Court
Jitney Drive
Sycamore Glen
Sorensen Way
Del Rosa Way: Fieldcrest to Vista
Round Mountain at Baring
Clan Alpine at Shadow Lane
Alpland at Vista
Novara Drive
Milano Drive
San Marino at Cintonia Drive
Antella Court
Sorrento Lane
Tuscan Way
Firenze Drive
Anqua Drive
Garzoni Drive

Route 5

Laser Drive
Promedio Pkwy
Mesa Meadows
Pradera Street
Painted Desert
Montero Drive
Desert Peak
Village Meadows
Ion Drive
Pah Rah Drive
Cathedral Peak
Panama Drive
Sweet Briar Lane
Silver Coyote Drive
Eagle Pass Road
Falcon Ridge Drive
Grosmont Drive
Astronomer Drive
Cielo Circle
Ten Mile Drive
Banestone Road
Peppergrass Drive
Russian Thistle Drive
Silverton Way
Capriolate Drive
Darby Rose Lane
Emblem Street

Bambey Drive
Hibernica Lane
Ivory Ann Drive
Marbee Drive
Poco Bueno
Island Queen Drive
Little Easy Street
Little Easy Court
General Thatcher Drive
Poco Rey Drive
Rey Del Sierra Court
Ulysses Drive at Hubble
Europe Drive at Hubble

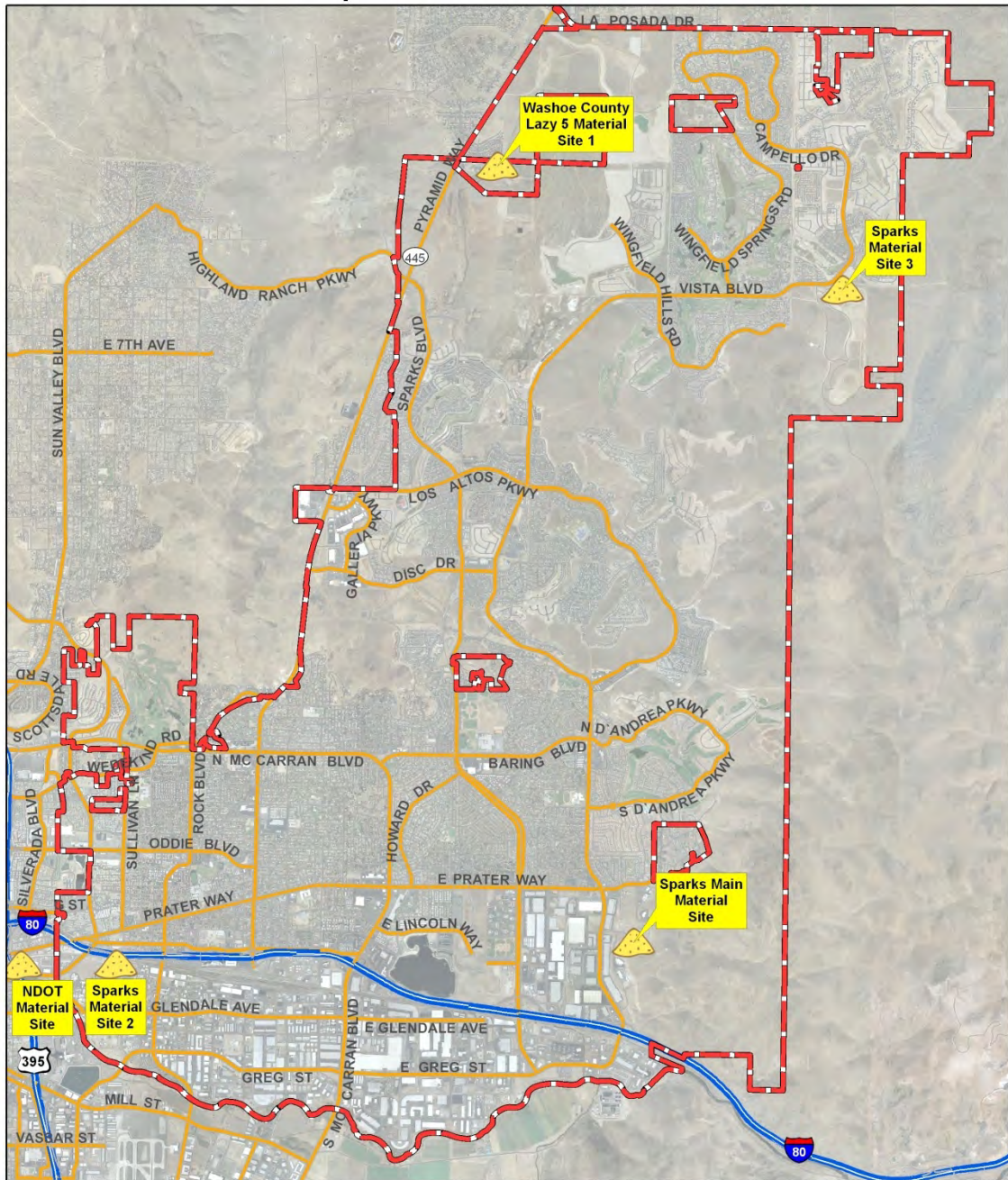
Route 6

Wheeler Peak Court
Cloud Peak Drive
Eagle Mountain Drive
Chipwood Drive
Fir Tree Lane
Crestside Drive
Black Oak Road
Crestside Court
Tree Top Road
Palo Alto Circle
Dry Gulch Way
Canyon Run Drive
Mesa Verde Drive
Cheatgrass Lane



MATERIAL SITES

MATERIAL SITE LOCATIONS



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1 inch = 5,102 feet

Material Sites



Main Material Site – Gandolfo Arena (Vista Blvd. & Loop Rd.)

Material Sites



Satellite Site 1
(South 21st Street)



Satellite Site 2
(Golden Eagle Maintenance Yard)



Alternate Site 1 (Washoe County – Lazy 5 Regional Park)



Alternate Site 2 (NDOT – Kietzke Ln. & Galletti Wy.)



SNOW CONTRACTORS

Equipment List & Hourly Rental Rates

SNOW CONTRACTORS

Equipment List and Hourly Rates

EQUIPMENT TYPE HOURLY OPERATED RATE

Q&D Construction, Inc

CAT 14 Blade	\$185
CAT 140	\$175
CAT 950/Volvo 110 Loader	\$155
Sanding Truck (5CY)	\$125
10 Wheel Dump	\$ 90
Transport	\$105

PAR Electrical

CAT 225 or Eq. (Excavator)	\$170.70
CAT 580JD 310 (Backhoe)	\$116.87
CAT 966 Loader	\$139.57
Bobcat	\$110.87
10 Wheel Dump	\$ 84.68
Transport	\$126.50

Ferretto Excavation

CAT 303.5C (Excavator)	\$ 97
CAT 325 D (Excavator)	\$143
CAT 950/Volvo 110 Loader	\$115

Reno Tahoe Construction

CAT 14 Blade	177.50
CAT 305C Mini Excavator	117.50
CAT 950/Volvo 110 Loader	147.50
CAT 329/Volvo EC 305 Excavator	217.50
Volvo EC 460 Excavator	257.50
Volvo EC 360 Escavator	202.50
Volvo EC 330 Excavator	197.50
Volvo L90E Wheel Loader	132.50
Volvo L220F Wheel Loader	174.50

Spanish Springs Construction

CAT 14 Blade	200
CAT 262/CAT 236	125
CAT 580JD 310 (Backhoe)	130
CAT 950/Volvo 110 Loader	165
CAT 329/Volvo EC 305 Excavator	185
JD 210 Skip Loader	125
10 Wheel Dump	100
Semi End Dump Truck	105
Transport	135



**REGIONAL AGENCY
&
CONTRACTOR
CONTACTS**

Regional Snow Emergency Commanders and Contractors

(Contact List)

Snow Emergency Commanders

City of Reno

Marnell Heinz	657-4571 / 671-7189
On-Call Supervisor	830-1122 / 250-2433 / 250-1858 297-5760 / 722-9720

City of Sparks

Ron Korman	425-1458 / 691-9592
Dan Hamlin	425-1608 / 691-9604
Police Dispatch	353-2231 (ask for on-call supervisor)

Washoe County

Adam Searcy	328-2192
Office	328-2180

Regional Transportation Commission of Washoe County

Dispatch	348-0413
Mark Little	348-0400 ext. 2129

Nevada Department of Transportation

Steve Williams	834-8306 / 721-4942
Tracy Larkin-Thomason	834-8300 / 846-1587

Truckee Meadows Water Authority

Pat Nielson	771-5530
Geoff Daforo	846-1885 / 746-4250
Tom Clifton	750-3941 / 834-8212

Washoe County School District

Charlie Hoppe	331-7491 / 691-2029
Mickey Harris	851-5690 / 355-7852
Mark Kahl	691-0166 / 626-8963

Snow Emergency Contractors

Washoe County Search and Rescue

Kevin Eikleberry	328-2196
Don Patch	328-2196
Bill Devine	742-3344
Dominique Leblanc	544-4430

Associated General Contractors

Dee Stueve	424-2544 / 772-2552
Buzz Harris	329-6116 / 813-3743
John Madole	425-2803 / 771-1515

Peavine Construction

Scott Faretto	691-5753
John Hedgorth	691-5766



STREET SWEEPING EQUIPMENT

Street Sweeping Equipment

UNIT #	YEAR	UNIT DESCRIPTION
726	2007	Sterling Elgin Eagle Sweeper (High dump)
729	2007	Freightliner Elgin Eagle Sweeper (High dump)
739	2006	Sterling Elgin Eagle Sweeper (High dump)
738	2005	Sterling Elgin Eagle Sweeper (Waterless high dump)
730	2004	GMC Tennant Centurion Sweeper (High dump)
732	2001	Sterling Elgin Eagle Sweeper (High dump)
500	2002	Freightliner Water truck (3,600 gallon tank)



Tennant Centurion Sweeper

Elgin Eagle Sweeper



Freightliner Water Truck