

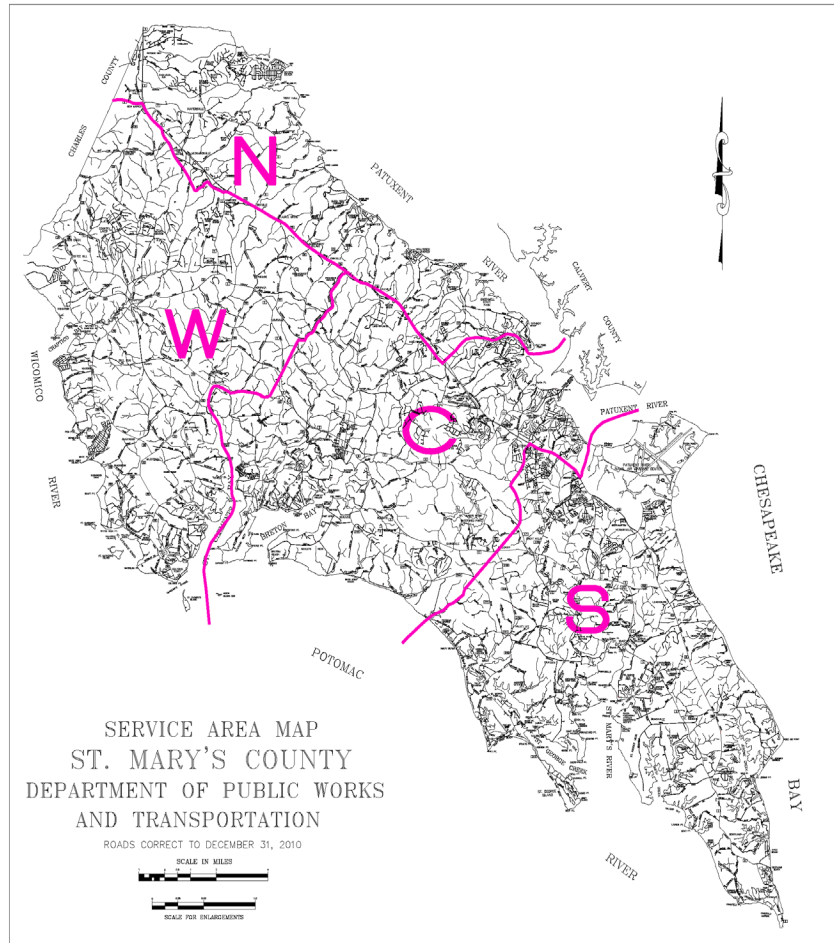
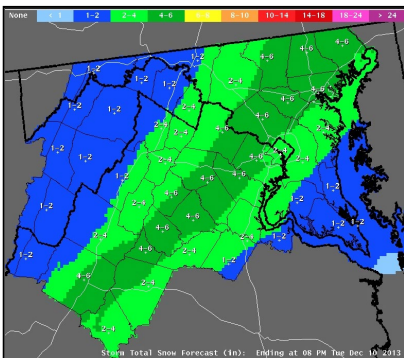
Department of Public Works & Transportation

Snow Removal and Ice Control Plan OVERVIEW

The Department of Public Works & Transportation's County Highways Division is responsible for Snow and Ice Control on all County-maintained roads. There are over **1,580** County-maintained roadways encompassing more than **1,272** lane miles (State Highway Administration maintains approximately 600 lane miles). This Division is also responsible for developing policies and procedures that will systematically provide services at a level which permits safe vehicular travel for a prudent driver. Snow removal is considered a **Top Priority** of the Department. This Plan is also intended to address citizen expectations on the level of service that can be expected at various snow depths and to improve understanding between the Department, the public and the Board of County Commissioners. **Snow Season: October 15th through April 15th, each year.**

The County Highways Manager is responsible for conducting Snow and Ice Control Operations on twenty-seven (27) Snow Removal Routes / Supplemental Salt Routes within four (4) Road Service Districts; North, West, Central and South. The following provides a brief operational overview of the program:

WEATHER FORECASTING



A key element in implementing an efficient Snow and Ice Control Program is receiving and acting on timely weather information. Accurate weather forecasting is imperative in deciding which of the various operational procedures will be initiated. It is recognized that forecasts will occasionally be in error and operation plans may change. The County is informed of impending weather conditions by the National Weather Service, climatology charts, National Oceanic and Atmospheric Administration information at <http://www.weather.gov/>, and through weather briefings with the Department of Emergency Services.

PRIORITIES

Priority 1 Routes are Primary Streets: arterials, major collectors, and urban commercial roadways that encompass approximately **520** lane miles, and Volunteer Fire Departments & Rescue squads who have requested assistance. These roadways: serve higher density populations; are cross County connectors (ie. Link two or more State or County roads); provide access to public elementary, middle and high schools; serve volunteer fire and rescue squad locations; provide access to Sheriff and Maryland State Police barracks / outposts. Priority 1 Routes, as listed on the Attachment, are the first routes to be cleared and are to be kept clear. **These roadways are normally addressed by the County Highways Division crews, foremen (with 4wd trucks and plows), and limited contractor support.**

- First priority is given to all major collectors and urban commercial roadways. *The Maryland State Police Medevac helicopter, MedStar and hover taxi route are Priority 1(A) for the Department of Recreation and Parks. Timing may be affected by school and business closings.*
- For estimated response times under various storm intensity levels, refer to the MINOR AND MAJOR STORM discussion in the Plan.

Priority 2 and 3 Routes include: Priority 2 Secondary Residential Streets such as our minor collector and secondary residential roadways and Priority 3 Routes (local roads in subdivisions, courts and dead end streets). For minor storm events that primarily utilize County crews, these routes are usually addressed after the first priority roadways have been satisfactorily completed as they are the lesser traveled roads. There are currently **752** lane miles of Priority 2 and 3 Routes in the County-maintenance system. **For larger storm events, these roadways are addressed by contractor support and monitored by the County Constructions & Inspections staff (with 4wd trucks and plows).**

- Second priority is given to minor collector roadways. Normally all roadways within these classifications are plowed and sanded /salted simultaneously. However, in cases of severe storms, priorities may have to be shifted to concentrate on only the major collectors and urban commercial roadways.
- Third priority is given to all remaining County roadways, including local streets in subdivisions and secondary roadways, which are also plowed and/or salted when conditions exist on these roadways to merit such action. Cul-de-sacs and dead-end streets are normally the lowest priority. After the snow stops falling, and after the major County maintained roads and primary neighborhood collector streets are cleared, crews concentrate on clearing snow from all neighborhood streets and sanding / salting as may be required.
- For estimated response times under various storm intensity levels, refer to the MINOR AND MAJOR STORM discussion in the Plan.

Priority 4 Areas include: the St. Mary's County Regional Airport runway/taxiway by the DPW&T and ramp areas if the Department of Recreation & Parks equipment cannot handle the accumulation. *Airport snow and ice removal procedures shall be in general conformance with Chapter 3 of FAA Airport Circular AC 150/5200-30A. Convenience Centers and sidewalks adjacent to public facilities are also considered Priority 4 areas for the County Highways Division.* Snow removal and ice control in parking lot areas serving County maintained facilities are the responsibility of the Recreation & Parks Department. The Building Services Division staff may be mobilized to assist in any minor clearing around ground-mounted lighting and points of pedestrian access.

- FAA advisory circulars recommend that the airport have sufficient equipment to be able to clear one (1) inch of snow from the runway, principal taxiway, and sufficient ramp area(s) for basic operations within two (2) hours. Clearance priorities for the Airport are the primary runway, taxiway, tea-cup turnaround, high speed turnoffs, Maryland State Police medevac / MedStar transport access gate and ramp areas, visual and navigational aids (i.e., Communication antennae, PAPI, REILS, etc.), and the Aircraft Rescue and Firefighting (ARFF) access road. The clearance of remaining ramp areas, non federal visual and navigational aids, refueling areas, perimeter hangar / roadway access, terminal ramp area, auto parking lots and service areas area secondary clearance priorities.

OPERATIONS PHASE

Staffing. The Snow Operations Office and Vehicle Maintenance Facility **will** be open on a twenty-four (24) hour basis during the storm. Shift work for operators will be scheduled in accordance with mandated Motor Vehicle Administration CDL (Commercial Driver's License) requirements. Additional "essential" personnel to answer telephones, etc., in the office will be called in as necessary. Personnel will be called in from the Recreation and Parks Department and/or the St. Mary's Metropolitan Commission to assist in snow removal operations. Cold Conditions Guidelines for Outside Workers will be utilized to ensure the safety of staff.



Escalation of Operations. At storm "watch or warning" levels, emergency activities will escalate. Additional personnel from other Departments to answer telephones, etc., in the office may be called in as necessary, depending on the response level required. A "partial activation" of the EOC may also be warranted in accordance with the established Activation Level System. **Plowing operations are not normally activated unless it is expected that 2-3" or more of snowfall will accumulate on the roadways.** **NOTE:** *Doing nothing can be an appropriate informed strategy in some circumstances. Typically, pavement temperatures above 34°F associated with light frozen precipitation will not require treatment. Similarly, light "dry" snow on a very cold paved surface (without any residual ice control chemicals) may not require treatment. Vehicular traffic and/or wind typically blows the snow off the surface.*

Response Levels. During inclement weather operations, the Vehicle Maintenance Facility staff will elevate the priority response levels for the following activities: availability of 275 gallon fuel truck; building and repairing tire chains; changing blades on snow plow removal equipment; repairing and installing snow plows on vehicles; servicing critical vehicle needs such as lights, wiper blades, fluids etc.; and installing salt spreaders. In 2012, all foreman vehicles were equipped with snow plows to improve response and recovery efforts. Every dump truck is equipped with an automated material spreader, a snowplow and a two-way radio (w/ GPS/GIS conversion capability).

Level I (minor storm) Operations. The DPW&T forces only under normal or up to 12 hour days. As soon as the snow begins to accumulate, equipment is dispatched to salt the Priority 1 Emergency/Salt Routes (**Attachment A**), which includes the heavier traveled arterial, major collector, urban commercial and minor collector roadways, steep hills, severe horizontal curves and dangerous intersections. Emergency Management Agencies and volunteer Fire and Rescue operational facilities are also assisted with salt/sand treatment applications at this time, as are the St. Mary's Hospital and Governmental Center access roads. Level I Operations are fairly routine and often occur *prior to* the issuance of official **Winter Weather Advisories**. The convenience centers / landfill, and STS Transit Services should continue to operate without unusual disruptions or delays.

Level II (minor storm) Operations. The DPW&T and Recreation & Parks forces (if needed) and limited contractor support for 12 hour to 24-hour service. During this phase, all vehicles are requested to avoid parking on Priority 1 routes until clearing operations are completed. **When snow accumulates approximately 2-3" in depth on the roadways, plowing operations will normally be initiated.** Contractor support may also be required in specific Road Service Districts to assist with designated Snow Removal and/or Auxiliary Routes. During this phase, residents should move vehicles off all residential streets until one (1) pass plowing has been completed. Level II Operations often occur following the issuance of official **Winter Weather Advisories**. During this time, convenience centers / landfill may close early, and STS Transit may experience delays in service.

NOTE: Whether Contractors are utilized or the County utilizes its own resources, a plowing operation typically expends about three (3) times more (time and resources) than salting / sanding operations.

OPERATIONS PHASE

(Continued)

Level III (major storm) Operations.

The DPW&T and Recreation & Parks forces and contractor support for 12 hour days to 24-hour service. If snowfall accumulation continues and is anticipated to exceed a depth of at least four (4) and up to twelve (12) inches contractor support will typically be authorized. Level III Operations often occur following the issuance of an official **Winter Storm Watch or Warning**. Convenience Centers, landfill, and STS Transit operations may experience major delays, closures, and/or cancellations of service. Rate and accumulation of snowfall, moisture content, temperature, time of day, wind direction and velocity, storm duration,



and availability of rested personnel may enable the County Highways Division to perform the operations with varying amounts of contractor support. **Allow a minimum of two (2) hours for mobilization and demobilization of County Highways and STS operations.**

- Residents are urged to remove their vehicles from all publicly maintained roadways at this time. Vehicles without snow tires or chains found blocking roadways during a snow emergency may be ticketed and towed at the owner's expense. A local **Declaration of a Snow Emergency** is probable once accumulations approach 8-12 inches.
- Should it become necessary, the Department will request that the Commissioners of St. Mary's County pass a Resolution adopting no parking zones or establishing formal emergency routes along designated Priority 1 Routes.

Level IV (major storm) Operations.

If snowfall predictions result in an official **Winter Storm or Blizzard Warning** for anticipated accumulations of between 12 and 18 inches, travel on streets is strongly discouraged. Convenience Centers, landfill, and STS Transit operations will normally be cancelled / closed with no services provided. Priority 1 and Secondary Priority 2 & 3 Residential Routes are continually, plowed and salted until conditions improve. County Inspectors/Assessment Teams will be dispatched during the storm to assess needs. Through lanes on major roads must be cleared and at least one (1) lane made passable on most residential streets. Landfill, Convenience Centers and STS Transit System services should be suspended at this time. Involves an event which has become, or is becoming, an emergency or disaster and requires significant County and State response (local government capabilities are clearly exceeded). Operations may be performed under a **Governor Declaration** of a State of Emergency.

Level V (major storm) Operations.

If snowfall is 18-24 inches or greater, plowing and salting will be performed continuously throughout the severe winter storm, usually under **Blizzard Warning** conditions. Vehicles remaining in Emergency Salt Routes may be ticketed and towed if approved by the Board of County Commissioners and/or if they impede the movement of emergency response teams. Contractor support will continue until further notice. Narrow and/or blocked roads can be expected due to the heavy accumulations. Involves an event which has become, or is becoming, an emergency or disaster and requires significant County and State response and possible Federal response and recovery assistance (local government capabilities clearly exceeded). Involves a declared emergency where the State and local government are clearly overwhelmed. The State may request implementation of the Federal Response Plan and **Presidential Declaration**.

OPERATIONS PHASE

(Continued)



Suspension of Operations. In the event a storm reaches an intensity that the continuation of operations would prove ineffective or would pose an undue safety risk for County personnel, contractors and/or the traveling public (i.e., during blizzard conditions at \geq **35 mph**, DOT time limitations etc.), snow and ice control activities should be shut down until weather conditions have improved. When winds reach the established threshold (sustained gale-force winds at **50 mph or greater**), or the storm severity threatens the lives of employees, DPW&T roadway and assistance

operations will be suspended. **Wind gusts** of 40 mph or greater may also result in the restriction of higher profile vehicles such as box trucks, buses and 18 wheeled tractor trailers from traveling over bridges (ie. Thomas Johnson Bridge). See also the Wind Restriction Policies below. In the event of extreme life threatening circumstances and in conjunction with local and State Medical Directors, the EOC may issue a **Code Blue** notice which formally suspends all emergency response operations.

Effects of Wind Speed. The effects, extent and nature of damage that can be anticipated as a result of various storm intensities is graphically presented in Appendix 6 of the County's Debris Management Operational Plan. Wind restriction policies are also described below.

Wind Restriction Policies. In accordance with SHA Policy dated February 1, 2005, wind speeds **exceeding 50 mph**, Law Enforcement Personnel may permit only automobiles, pickup trucks, flatbed trailers, and commercial buses to cross the Thomas Johnson Bridge. In the event sustained wind speeds **exceed 40 mph**, the decision to cease or continue all or a portion of the STS public bus transportation system will be determined. The DPW&T has adopted the SMECO policy, which states that bucket or platform work should be avoided at any time when wind gusts **exceed 40 mph**.

Safe Refuge. If operations are suspended in accordance with this Plan, DPW&T crews will be directed to demobilize and will be positioned into the pre-determined safe refuge locations (i.e., DPW&T complex, Convenience Centers, Road Service Districts, Volunteer Fire Department and Rescue Squad facilities) and stage in areas where they can be effectively re-mobilized. Resource providers and private contractors who may assist in the snow / ice removal process will be contacted in order to make necessary arrangements to ensure their availability.

Zero Tolerance. When hostility or intimidation from the general public is encountered by our employees and / or contractors during snow removal operations, the service will be immediately discontinued. No additional snow removal or ice control operations will be authorized by the Director of Public Works & Transportation on the subject roadways without a law enforcement escort from the Office of the Sheriff.

Exceptions. Certain conditions may exist, which coupled with forecasted weather conditions, may result in modifications of normal priorities. Priorities will also be modified in the event of individual emergencies such as death, injury, fire, crime, etc. The County Highways Division will make every effort to address citizen call-ins and requests as soon as priorities allow.

MINOR AND MAJOR STORMS

Minor Storms. A snow storm **of four (4) inches or less** on the paved roadway surfaces is considered a Minor Storm. A storm of a minor nature is usually handled solely by Department personnel and equipment of the County Highways Division under Level 1 and II Operations. *For snowfalls of less than two inches (2"), depending on temperature and weather forecast, only emergency salt routes may be treated.*

Major Storms. Snow storms that develop an accumulation of more than four (4) inches on the paved roadway surfaces are considered Major Storms and are handled under Level III – Level V Operations. All contractors' equipment in all Road Service Areas should be considered for mobilization at this time. This action will require the Director of Public Works & Transportation / Manager of County Highways approval and will vary based on an assessment of current conditions, weather forecast and budgetary constraints.

When the forecast calls for snow or ice, the following can generally be expected around the County...

<p>* 0-4 Inches</p>	<p>For snowfalls <2", depending on temperature and weather forecast, only Priority 1 Routes may be treated. Priority 1 Routes can be treated (not plowed) with minimal contractor support, within 5-6 hours after the storm ends. For accumulations > 2", Priority 1 Routes can be plowed / treated in 10-12 hours with minimal contractor support.</p>	<p>Priority 2 and 3 Secondary Residential Routes can be treated (not plowed) within 10-12 hours after the storm ends. For accumulations > 2", Priority 2 and 3 Secondary Residential Routes can be plowed / treated with contractor support within 16-20 hours after the storm ends. Otherwise, County crews will address after Priority 1 routes have been completed. Convenience Centers, landfill, and STS Transit should operate on time, but may experience minor delays. For the County Airport, the FAA advisory circulars state that the runway <u>will be closed</u> for aircraft use if it has more than ½ inch of slush or 2 inches of dry snow.</p>
<p>** 4-8 Inches</p>	<p>Priority 1 Routes are continuously plowed. Thru lane pavements should be plowed within 10-12 hours after the end of the storm. Contractor support may be utilized to reduce response time depending on the nature, intensity and duration of the storm event.</p>	<p>Plowing of Priority 2 and 3 Secondary Residential Routes takes up to 12 hours to plow once (with contractor support). Streets should be made "passable" within 24-36 hours after the storm ends. Convenience Centers, Landfill and STS Transit may experience minor delays and disruptions to service.</p>
<p>*** 8-12 Inches</p>	<p>Priority 1 Routes are continuously plowed. Thru lane pavements should be plowed within 24 hours after the end of the storm.</p>	<p>Plowing of Priority 2 and 3 Secondary Residential Routes takes up to 24 hours (with contractor support) to plow once with streets made "passable" within 48 hours after the storm ends. Convenience Centers, Landfill and STS Transit may experience major delays, cancellations, or closures.</p>
<p>**** 12-18 Inches</p>	<p>Priority 1 Routes are continuously plowed (with contractor support). Thru lanes should be plowed within 24-36 hours after the end of the storm. Expect narrowed and/or blocked lanes and snow packed residential streets due to accumulations.</p>	<p>With contractor support, plowing of Priority 2 and 3 Secondary Residential Routes takes up to 36-48 hours to plow once with at least one (1) lane made "passable" within 2-3 days after the storm ends. Convenience Centers, Landfill and STS Transit will normally be closed with no services provided.</p>
<p>***** 18-24 Inches</p>	<p>Priority 1 Routes are continuously plowed. Thru lanes should be plowed within 36-48 hours (1-2 days) after the end of the storm. Expect narrowed and/or blocked lanes and snow packed streets due to accumulations.</p>	<p>Plowing of Priority 2 and 3 Secondary Residential Routes takes up to 48-60 hours (2-3 days) to plow (with contractor support) once with at least one (1) lane made "passable" between 2-3 days later. Some residential roadways might be impassable for longer periods.</p>
<p>Freezing Rain or Ice</p>	<p>Priority 1 Routes to be treated continuously (salting and/or sanding) until road conditions improve. Bridges, large culvert crossings, shaded pavement areas, hilly areas usually freeze first. Possible traffic signal outages and tree limbs can be expected in the roadway. Priority 1 Routes can usually be treated within 3-5 hours after the storm ends and Priority 2 and 3 Secondary Residential Routes within 12 hours after the storm ends. For storms covering a larger geographical area, Priority 1 Routes can be treated within 8-10 hours (with contractor support).</p>	<p>Priority 2 and 3 Secondary Residential Routes within 12 hours after the storm ends. For storms covering a larger geographical area, and Priority 2 and 3 Secondary Residential Routes can be treated between 16-20 hours (with contractor support) after the storm ends.</p> <hr/> <p>NOTE: "Passable" means that the road may be snow-packed, only one travel lane will be plowed, and all-weather tires are a must. Follow initial plowing with "curb to curb", cul-de-sac, and shoulder edge clearing will be performed as time and resources permit.</p>

MINOR AND MAJOR STORMS

(Continued)

Snow Packed Roads. Even after plowing and treating operations, some roadways may remain still snow covered / packed. This is primarily due to the amount of traffic the roadway has experienced since the beginning of the storm. Some storms start with snow and change to freezing rain, which also makes plowing difficult and ineffective. Other factors that affect the quality of a plowing operation are the number of cars parked in the street.



Residents are advised that although residential subdivision streets are plowed and salted, they could remain in a snow packed condition. Snow packed means that the snow has been compacted to the road's surface by vehicular traffic. In low temperatures, especially below 15-20 degrees, salt is not very effective. With or without salt, these roads sometimes do not get down to "bare pavement" until the snow melts. As the snow melts, the snow surface usually begins to break apart into smaller sections. At that time, the roads may either be re-plowed or left to naturally melt away.

Mechanical Removal of Snow and Ice Accumulations and Packed Snow and Ice. If there is traffic (vehicle or pedestrian) on a surface during a snow or ice event, periodic mechanical removal is necessary to keep the facility passable. This can be accomplished with bladed equipment that has the capacity to displace snow and ice quickly. When thick layers of packed snow or ice become bonded to the surface, specialized equipment is used to remove successive layers until the remaining layer can be successfully removed using a chemical de-icing technique or by natural melt. This is usually a very slow process. Motor graders and trucks with under body plows are usually used for this task. The combination of special ice blades and down-pressure enables this equipment to remove layers of ice. Newer mechanical impact devices that attach to motor graders do a good job of breaking up the ice prior to blade removal. Unless the pavement temperature is above 32°F, removal of the final layer of snow and ice on a paved surface will require an ice control chemical.

Snow Removal and Dumping. Removal and dumping operations require different types of equipment than those that are routinely used during snow response activities, but the source of such equipment has been planned for. Dump trucks, front end loaders, snow melting / reduction devices and other supplemental resources is available to the County thru contractual arrangements. Typically the need for this type of activity is in more urban areas (ie. Lexington Park) where there is insufficient area to deposit snow off the travel-way. When snow emergency situations require the disposal of excess snow from urban areas, disposal should be conducted in upland areas which allows sand, salt, calcium chloride, litter, and other pollutants picked up from the roadways during plowing, to filter out during melting. If upland dumping is not possible, then the Clean Water Act requires that an NPDES permit be acquired before any dumping into waters of the United States. Best management practices which control runoff from eventual snow melt from these temporary storage areas should be utilized.

COMMUNICATION

Customer Expectations. Performance information has been provided in this Plan to help assist in communicating to the public. Roadway priorities and anticipated response times for various storm levels should help citizens in their individual decision making during a winter storm event. Terminology definitions and reminders of what can be expected such as the understanding that "Passable" means that the road will be snow packed, only one travel lane will be plowed and that the use of all weather tires is a must are also included in the Plan.

Public Information. Notifications and inclement weather announcements will be made by the Public Information Officer (PIO) in accordance with the approved Media and Employee Alert Plans. Channel 95, the County Government's channel, will also air updates of changing roadway conditions within the County and County Employee operational status. **The Citizen Emergency Messaging System** number 301-475-4200 ext 4911 was established to provide citizens with inclement weather, hurricane, tornado, and other emergency information.

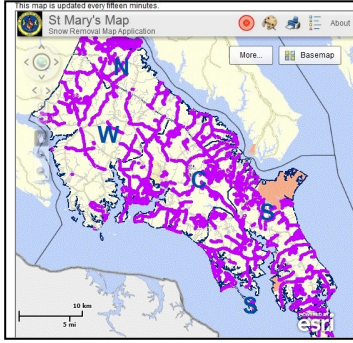


Photo: One lane "passable" roadway

COMMUNICATION

(Continued)

Service Area Map.



As of October 1, 2013, an interactive Service Area Map has been provided to geographically show the progress crews are making on county maintained roadways. The program allows citizens to zoom in and / or out as well as search for a specific address or road name. As roadways are treated / plowed, the roadway(s) will be shaded purple. This map, located at <http://www.stmarysmd.com/dpw/roadalertmap.asp> is updated every fifteen minutes.

Road Closure Notification System. The County has a road closure notification system whereby citizens can automatically receive a text and/or email when the 911 center is notified of a road closure for an extended period of time. Individuals can sign up for this from the County website under e-notices at:

<http://www.co.saint-marys.md.us/citizen/signup.asp>

Traffic Cameras. The Department of Transportation has installed several live traffic cameras in Southern Maryland and St. Mary's County that can be utilized to visually monitor roadway and traffic conditions. The cameras may be viewed at <http://www.chart.state.md.us/TravInfo/trafficcams.php#>.

Resolutions. In the event of a major weather event that requires an emergency declaration, coordinate with the County Attorney's Office to prepare Resolution(s) addressing public health, safety and welfare concerns, scope and duration of storm operational and recovery activities. The Resolution will be executed by the Board of County Commissioners and will outline the County's plan for recovery. Community Meetings may also be needed if special Damage Assessment Areas are identified.

Warming Centers, Disaster Assistance, Recovery Operations and Warming Centers. Public Libraries and Senior Activity Centers can serve as community Warming Centers. The Human Services, Office on Aging, DECD and/or Social Services staff can also staff any hotlines and local Disaster Field Offices (DFO's), Disaster Assistance / Recovery Centers (DAC's / DRC's), or other communication networks as required.

Internal Coordination. Equipment and vehicles are equipped with two-way radios and DPW&T inspectors and foremen are equipped with cellular phones to ensure constant communication is maintained during all phases of operation. In addition, equipment operators **must** report any vehicle conditions that may affect safety or present a mechanical problem after a trip to ensure the proper level of maintenance is performed prior to the next shift. Message or Status Logs are utilized in the EOC/DRC to record the timing and content of all communications, directives, assumptions and action items during the event.

Emergency Phone Lines. In the event incoming lines to the DPW&T are disabled, secondary lines can be forwarded to cell phones activated by the IT Department (STS, Highways, Admin, Solid Waste) in accordance with the established DPW&T *Emergency Procedures for Telephone System operations policy*.

Technology. CODE RED-Reverse 911 phone messaging and notification system, Web EOC interface with MEMA, Statewide MEMA-EOC conference calling and other technical resources may be available to the EOC /DMC and are utilized throughout the event. SMECO maintains an on-line Outage Map that can be viewed at <http://outage.smeco.coop/>.

NOTAMs. In general, airport users should be promptly notified, and a NOTAM issued immediately, advising of unusual airport conditions. The Federal Aviation Administration (FAA) advisory circular typical format and abbreviations for use in reporting winter conditions / closures on aircraft movement areas are utilized for this

COMMUNICATION

(Continued)

purpose. NOTAMS are filed with the FAA and coordinated by the Airport Manager and the Fixed Based Operator, Mr. Bildman, at (301) 904-5035 or (301) 373-2101.

On-line EGOV. For information about our snow removal operations during a snowstorm, call the Division of County Highways at (301) 475-4200, ext. 3575, or visit the County web site at <http://www.co.saint-marys.md.us> or, DPWT website at <http://www.stmarysmd.com/dpw/>. The NOAA National Weather Service Office also provides information at <http://www.crh.noaa.gov/unr/edusafe/wwaw/> and Snowfall Risk Assessment (**Attachment D**).

Internal Coordination. Snow removal vehicles are equipped with two-way radios and DPW&T inspectors and foremen are equipped with pagers and cellular phones to ensure constant communication is maintained during all phases of operation. In addition, equipment operators **must** report any vehicle conditions that may affect safety or present a mechanical problem after a trip to ensure the proper level of maintenance is performed prior to the next shift.

SNOW & ICE SPOTTERS PROGRAM

Visual Observation. There is no substitute for visual observation of weather conditions and conditions of the pavement surface. The Office of the Sheriff, Department of Emergency Services, and our trained maintenance / inspection personnel are best prepared to judge the severity of conditions and to recommend corrective action. DPW&T Road Foremen and Equipment Operators closely monitor any changes in weather/roadway conditions and perform evaluations of treatment effectiveness. Other resources for information on changing conditions include Non Public School Bus and STS transit bus drivers, Board of Education, Emergency Communications dispatchers, and volunteer Fire & Rescue personnel.

Real-time knowledge of the pavement surface state is necessary for making an informed decision on treatment; the most important of which is pavement temperature, as it will determine if it will form an ice-melting interface at the pavement surface. In addition, changing conditions resulting in localized freezing or "black ice" conditions can be better addressed when identified in the field and reported to the DPW&T Snow Operation Office. *If overnight freezing is predicted or anticipated, a minimum of 3-4 dump trucks are loaded and readied or mobilized, as authorized take-home vehicle, into the various Service Districts to address spot reports from EOC and the Office of the Sheriff.* Foreman vehicles are now equipped with hand-held infrared laser technology sensors to help determine pavement surface temperatures.

During the treatment / plowing of Priority 1 roadways, County crews may be requested to deviate onto Priority 2 and 3 routes to better assess current conditions and to assist (demobilize) the contractors in their respective Service Area(s).

Weather Station Data. Supplemental air temperature, pavement temperature, and wind speed data can be obtained from the Weather Station located at the Thomas Johnson Bridge on MD 4 at the State Department of Transportation's website: <http://www.chart.state.md.us/travInfo/weatherStationData.asp>

Wind. Experience has shown that crosswind speeds in excess of 15 mph may cause local drifting across a pavement and retention of snow; if for example, the pavement is wet. The threshold wind speed at which this becomes a problem will vary widely with road siting and other conditions. Maintenance personnel should be alert to the conditions that may cause this interception of snow and advise the Snow Operations Office to incorporate any changes in operational procedures.

Participation. We also rely on citizens, as well and encourage their participation in this Program, by reporting changing conditions to the Department. Questions regarding the plowing procedures should be directed to the County Highways Snow Operations Office at (301) 475-4200. During the hours of **5:00 p.m. and 7:30 a.m.**, use extension 3575. The National Weather Service eSpotter on-line reporting system is also available at <http://espotter.weather.gov/>.

SKYWARN® is a national network of volunteer severe weather spotters. The spotters are trained by local National Weather Service Forecast Offices on how to spot severe weather such as snowfall and ice accumulation. Interested parties can contact NOAA at <http://skywarn.org/contact-skywarn/>.

RECOVERY PHASE

As the storm abates, and with the completion of clearing, the Department moves into the Recovery Phase as countywide services begin returning to normal operations. Recovery consists of phasing-down operations by: performing detailed clean up; terminating contractor support and evaluating their work; returning employees to regular work schedules; pushing back or removing any piles of snow blocking sight distance/storm drains or still hindering the normal flow of traffic, such as on shoulders of the road; removing areas of isolated compacted snow or ice within the roadway; final clearing of cul-de-sacs and turnarounds; addressing any unintended private property damage resulting from snow removal operations; evaluating the need for mailbox repair / replacement; cleaning and servicing vehicles and equipment; addressing curb & gutter, ditch, sidewalk, potholes, and sign damage; replenishing or shifting snow-related supplies; and preparing the needed financial paperwork. Any inspection of sidewalks, if required, would not occur until after the roadways (the DPWT's primary mission) have been addressed.

POST-STORM ASSESSMENT PHASE

After Action Report. Lessons can be learned from both successes and failures of any winter maintenance operation. Improvements in operation, and even equipment, can be identified and implemented through a post-storm assessment of the practices and treatments used. The Department, sometimes in conjunction with the Department of Emergency Services, completes an After Action Report, which identifies issues and recommended improvement actions. It is important that all levels of maintenance personnel, from the Director and County Highways Manager to the equipment operators, be involved in the evaluation process. The discussion should take place within 2-4 days of a winter storm to make sure issues are fresh in everyone's mind. This process includes the evaluation of treatment effectiveness, assessment of operational decision timing, property damage, review/claims processing, and an examination of storm costs.

In the event of significant storm events, snow removal costs are accounted for and budget amendments are prepared and processed through the Board of County Commissioners to restore operational accounts (i.e. Overtime, contract services, salt, meals, emergency pay rates, supplies, and materials etc.) to their pre-storm funding levels.

Any operations or response plan must be flexible. Any plan, no matter how well thought out, must be amended at some point in the process. Therefore, those who implement the cleanup must periodically review the operation and be willing to address shortcomings or unforeseen changes in either scope or implementation. Planning is imperative, but no one can anticipate all possible scenarios in addressing a disaster cleanup

PROPERTY DAMAGE AND REPAIR

Assistance to Private Property Owners. At no time during or after snow removal operations will County or contractor equipment be used to clear snow or ice from non-County maintained roads, private drives, or areas on private property. However, in areas where it can be shown that snow was disproportionately placed in the driveway of a resident during exceptional circumstances of a life threatening nature (such as a medical emergency), or as may be directed by the Director of Public Works & Transportation / Manager of County Highways, plowing of the driveway entrance may be authorized.

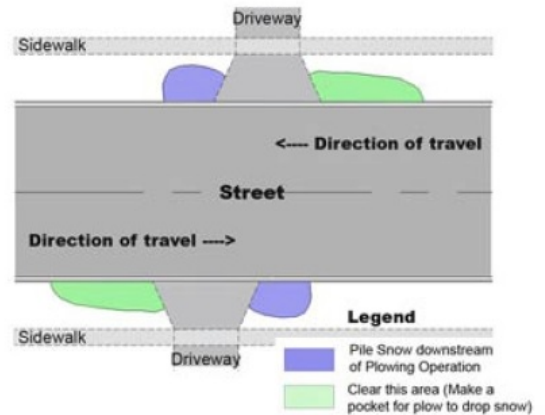
Landscaping. Although significant caution and safety efforts are made to avoid damage to private property during snow and ice removal operations, property damage may inevitably occur. In cases where turf or landscaping damage has resulted from a snow plow turning around, pushing a windrow and/or "jumping the curb", restoration will be done as soon as weather conditions allow. Under only extreme circumstances will damage resulting from salt related turf or landscape injury be restored or treated. *LGIT will not reimburse a citizen for damage to landscaping and plants that have been placed within the right of way or for monies expended by the property owner to restore same if the County maintains the right of way.*

Incidental Structures. Unfortunately, mailboxes and other structures are also occasionally damaged during snow removal operations. In cases of boxes physically knocked down by plow contact, a replacement box will be installed at the earliest possible time by County personnel at the expense of the County. Replacements will be the standard rural route box, properly installed per US Postal Service standards. *LGIT will reimburse a citizen for the cost of replacing a standard or like kind mailbox or other structure, if it is legally placed within the road right-of-way and is damaged by physical contact of a snowplow or other piece of snow removal equipment. LGIT will not replace a mailbox or other structure damaged as a result of the weight or impact of snow and ice being moved by a snowplow, if there has been no physical contact by a piece of equipment.*

PROPERTY DAMAGE AND REPAIR

(Continued)

Driveways and Sidewalks. During snow plowing operations, a windrow is normally deposited on one or both sides of the street. On many roadways, windrows may also be temporarily deposited in or around travel and turn lanes. With the exception of vehicle speed, plow operators do not have control over the windrow of snow coming off the edge of the blade. Unfortunately, these windrows will block driveways, but this is an unavoidable inconvenience. It is the responsibility of the property owner to clear driveways and entrances (open up the windrow) sufficiently for access. The Department suggests that residents shovel snow in the direction of traffic, and try to make a “pocket” on the opposite side of the driveway, as shown (see right). By doing so, snow that is plowed will be dumped into the “pocket” rather than back onto the driveway. Residents are advised that **no person shall plow, shovel, blow or otherwise deposit any snow, ice or other frozen precipitation onto a public street or public sidewalk, including any crosswalk, transit stop, or other public property.**



Commercial and multi-family property owners are responsible for clearing the entire width of the sidewalks along their properties, including any curb-cuts or ramps, within seventy-two (72) hours after snowfall ceases. If snow, ice or other frozen precipitation cannot be completely removed, the owner shall apply sand, abrasives, salt or de-icing chemicals sufficient to render the sidewalk suitable for pedestrian traffic. All residents are encouraged to be good neighbors by assisting those who may be not physically able to do so.

Trees on Private Property. Per FEMA Debris Guidelines, trees on private property, which have a **thirty (30) degree or greater** lean toward the road and are of sufficient size to threaten the roadway or will fall across a fence line, shall be removed by cutting the tree at the fence line or at the edge of the right of way. On 9-12-2011 LGIT advised that Maryland is a self-help state that does not consider trees a nuisance to be abated. Generally speaking, during Act of God situations such as storms, when a healthy tree falls over onto a neighbor’s property, the homeowner’s insurance of the damaged property is responsible. However, in the case of a dead tree, the owner of the dead tree would have an obligation to remove a known dead tree so that it does not endanger the property of another. In short, if the County is aware of and knows of a dead tree or limb that endangers a road or other property, then it would likely be negligent if it was not removed.



Parked Vehicles. Residents are advised to park in their driveways to minimize the likelihood that their car and/or access to mailboxes will be plowed in, splashed by salt spray, damaged by the disposition of windrows or involved in an unfortunate collision. If they do not have a driveway, it is recommended they park on one side, preferably the even numbered side of the street, if possible. Once one side of the road has been cleared, they can move their vehicle to the other side. To help avoid the frustration that occurs when a snowplow covers a driveway with snow after a resident has shoveled, residents are advised to shovel snow to the right of the driveway (looking toward the street) into the yard instead of the street. *State law prohibits a person from parking a vehicle on any roadway that is*

designated and posted as a snow emergency route and LGIT would not pay for vehicles damaged on these routes. The County does not have designated snow emergency routes at this time.

WINTER WEATHER TERMINOLOGY

The U.S. Department of Commerce National Oceanic and Atmospheric Administration National Weather Service uses several terms to warn the public of more serious winter weather situations that may cause impossible traveling conditions and could pose a threat to life and property. Winter weather terms to be aware of include the following:

Winter Storm Watch - Means there is a POTENTIAL (>40%) for snow accumulations of 4-7 or more inches, or a ¼" of glaze ice from freezing rain, or a dangerous mixture of snow, ice and wind. Heavy snow is possible, but the exact timing, location, or occurrence of the storm is still uncertain. A watch means to get prepared for a storm.

Winter Storm Warning - Means that conditions ARE OCCURRING or there is a high probability (>70%) for snow accumulations of 4 or more inches, or a ¼" of glaze ice from freezing rain, or a dangerous mixture of snow, ice and wind to occur within a specific timeframe. A warning means that the storm can cause significant disruption to normal daily routines and be potentially life-threatening. Usually, snow 6 inches or more in 12 hours or less; or 8 inches or more in 24 hours can be anticipated.



Blizzard Warning - Means that winds of 35 mph or greater AND significant snow or blowing snow will produce visibilities of between zero and less than 1/4 mile. Temperatures will be below 30 degrees with wind chill temperatures below zero. Blizzards are usually accompanied by a foot or more of snow. These are the most dangerous winter storms and can be especially severe when combined with temperatures below 10° F.

Wind Chill Warning - Means that the wind chill temperature is expected to fall below -30° F (30 degrees below zero) for at least 3 hours. At these temperatures, exposure without protective clothing will quickly lead to frostbite and/or hypothermia. Longer exposures can be fatal.

High Wind Warning - Means winds of 40 mph or greater for at least one hour; or wind gusts 58 mph or greater. Trees and power lines can be blown down. May be preceded by a High Wind Watch if the strong winds are not expected to occur for at least 12 hours.

Advisories are issued when winter conditions are expected to be enough to cause inconveniences but will not be life threatening or cause significant disruptions such as:

Winter Weather Advisory - Means that accumulations of 2-4 inches, but less than 7" can be expected, that freezing rain or drizzle is expected to accumulate on untreated paved surfaces such as roads and sidewalks, and/or when blowing and drifting snow is causing hazardous road and driving conditions. Snowfall is expected to begin within the next 12 hours.

Wind Chill Advisory - Means that the wind chill temperature is expected to reach -15 ° F (15 degrees below zero) for at least 3 hours. (Same exposure concerns as a Wind Chill Warning).

Wind Advisory - Means that winds of 30 mph or greater; or wind gusts 45 mph or greater can be expected.

Blowing Snow Advisory - Means that the visibility will be significantly reduce, or when the roads have become snow covered over a large area.

Subject: To Codify Chapter 260 of the *Code of St. Mary's County, Maryland*, to Regulate the Removal of Frozen Precipitation from Public Sidewalks and Streets

Page 1 of 4

ORDINANCE

TO CODIFY CHAPTER 260 OF THE CODE OF ST. MARY'S COUNTY, MARYLAND, TO REGULATE THE REMOVAL OF FROZEN PRECIPITATION FROM PUBLIC SIDEWALKS AND STREETS

WHEREAS, pursuant to §8-630(c)(6)(i) of the *Transportation Article* of the *Annotated Code of Maryland*, the Commissioners of St. Mary's County are required to maintain and repair sidewalks and bicycle paths constructed by the State Highway Administration of the Maryland Department of Transportation either in connection with the construction or reconstruction of urban highways as defined in §8-630(a)(3) of the *Transportation Article* or at the request of the Commissioners of St. Mary's County; and

WHEREAS, pursuant to §12-504(d) of the *Local Government Article* of the *Annotated Code of Maryland*, the Commissioners of St. Mary's County are authorized to regulate the construction, maintenance, repair, and cleaning of sidewalks; and

WHEREAS, pursuant to §12-503 of the *Local Government Article* of the *Annotated Code of Maryland*, the Commissioners of St. Mary's County have control over county roads; and

WHEREAS, a notice of a public hearing was advertised on July 10, 2015, and July 17, 2015, in *The Enterprise*, a newspaper of general circulation in St. Mary's County, and a public hearing was held on July 28, 2015, to receive public comment and consider regulation of the removal of frozen precipitation from public sidewalks and streets; and

WHEREAS, the Commissioners for St. Mary's County find that it is in the best interest of the health, safety and welfare of the citizens of St. Mary's County to regulate the removal of frozen precipitation from public sidewalks and streets,

NOW, THEREFORE, BE IT ORDAINED by the Commissioners of St. Mary's County, pursuant to §12-504(d) of the *Local Government Article* of the *Annotated Code of Maryland*, that:

SECTION I. Chapter 260 of the *Code of St. Mary's County, Maryland*, be enacted and codified, to read as follows:

Sec. 260-1. Definitions.

(a) "Public sidewalk" means:

- (1) sidewalks and bicycle paths constructed by the State Highway Administration of the Maryland Department of Transportation either in connection with the construction or reconstruction of

Subject: To Codify Chapter 260 of the Code of St. Mary's County, Maryland, to Regulate the Removal of Frozen Precipitation from Public Sidewalks and Streets

Page 2 of 4

urban highways as defined in §8-630(a)(3) *Transportation Article* or at the request of the Commissioners of St. Mary's County; or

- (2) a sidewalk located within the right-of-way of a street or highway within the jurisdiction of the State of Maryland or the Commissioners of St. Mary's County.
- (b) "Owner" means the owner of record according to the State Department of Assessments and Taxation.
- (c) "Person" means any natural person or any corporation, limited liability company, partnership or association.

Sec. 260-2. Removal of snow, ice or other frozen precipitation.

- (a) The owner of any real property in St. Mary's County which is adjacent to any public sidewalk shall remove or cause to be removed any snow, ice or other frozen precipitation from the entire width of such sidewalk, including any adjacent driveway entrance, curb-cut or ramp, within seventy-two (72) hours after the end of the precipitation that caused the condition.
- (b) If a snowplow or other vehicle or machine deposits snow, ice or other frozen precipitation onto a public sidewalk, the owner of any property in St. Mary's County which is adjacent to such public sidewalk shall remove or cause to be removed any snow, ice or other frozen precipitation from the entire width of such sidewalk, including any adjacent driveway entrance, curb-cut or ramp, within seventy-two (72) hours after the deposit.
- (c) If snow, ice or other frozen precipitation cannot be completely removed, the owner shall apply sand, abrasives, salt or de-icing chemicals sufficient to render the sidewalk suitable for pedestrian traffic.

Sec. 260-3. Deposit of snow, ice or other frozen precipitation prohibited.

No person shall plow, shovel, blow or otherwise deposit any snow, ice or other frozen precipitation onto a public street or public sidewalk, including any crosswalk, transit stop, or other public property.

Sec. 260-4. Liability for cost of removal.

The Commissioners of St. Mary's County may remove any snow, ice or other frozen precipitation which has not been removed pursuant to Section 260-2(a) of this Ordinance or which has been deposited in violation of Section 260-2(b) of this Ordinance. The owner of any real property in St. Mary's County which is adjacent to any public sidewalk from which the Commissioners of St. Mary's County remove

Subject: To Codify Chapter 260 of the Code of St. Mary's County, Maryland, to Regulate the Removal of Frozen Precipitation from Public Sidewalks and Streets

any snow, ice or other frozen precipitation pursuant to the provisions of this Section shall be liable for the cost of such removal from the adjacent public sidewalk in addition to any other penalty.

Sec. 260-5. Penalty.

- (a) Any person who violates the provisions of Section 260-2 shall be subject to the provisions of §12-504(e) and §12-804(a)(2) of the *Local Government Article* of the *Annotated Code of Maryland*.
- (b) Any person who violates the provisions of Section 260-3 shall be subject to the provisions of §12-804(a)(2) of the *Local Government Article* of the *Annotated Code of Maryland*.

Sec. 260-6. Civil Liability.

It is not the intent of this Ordinance that a violation of any provision herein be evidence, or permit an inference, of negligence in any action for personal injury or wrongful death.

Sec. 260-7. Enforcement.

The Director of the St. Mary's County Department of Public Works & Transportation, and designees of the Director, shall have the authority and duty to administer and enforce the provisions of this Ordinance, including the authority to issue a citation for a civil infraction.

SECTION II. This Ordinance shall be effective upon the date written below.

Those voting Aye: 4

Those voting Nay: 1

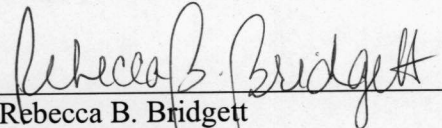
Those Abstaining: 0

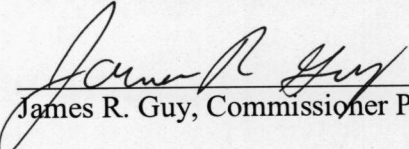
Date of Adoption: 9/1/15

Effective Date: 9/15/15

ATTEST:

COMMISSIONERS OF ST. MARY'S COUNTY

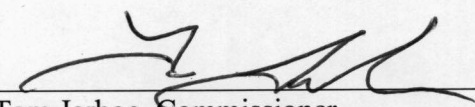

 Rebecca B. Bridgett
 County Administrator

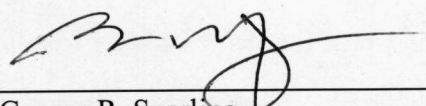

 James R. Guy, Commissioner President

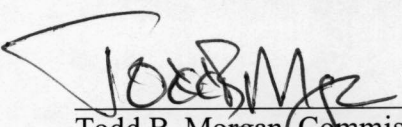
Subject: To Codify Chapter 260 of the Code of St. Mary's County, Maryland, to Regulate the Removal of Frozen Precipitation from Public Sidewalks and Streets

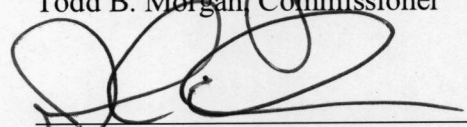
— No —
Michael L. Hewitt, Commissioner

Approved as to form and legal sufficiency:


Tom Jarboe, Commissioner


George R. Sparling
County Attorney


Todd B. Morgan, Commissioner


John E. O'Connor, Commissioner