

FIELD OPERATIONS POLICY & PROCEDURES MANUAL

CHAPTER: 06

SECTION: 01

Snow and Ice Control Policy

Effective Date: November 4, 2018 **Revision Date:**

Article I. PURPOSE

This policy documents the Goals and Objectives for Columbia County's level of service with respect to winter maintenance activities and snow and ice control on the network of Interstate (IH), State Primary, State Secondary (USH and STH), County Trunk Highways (CTHs), and Town or Local Roads (Locals) that are maintained by the Columbia County Highway Department (CCHD). This policy and level of service shall be implemented within the amount budgeted for this purpose and annually approved by the County Board of Supervisors. The level of service provided on roads in the County is interrelated to that provided under contract to the State Trunk Highway System in the County. Snow and ice control are considered emergency work and may be performed any time of the day or night. Because of the potential hazard to the public, the need for accessibility and the high incidence of overtime, careful planning and preparation must be done prior to the winter season.

Article II. BACKGROUND

This policy supersedes any and all previous written documents and unwritten policies of CCHD regarding snow and ice control on the County and applicable Local Road Systems.

Each storm has individual characteristics and climate factors (storm intensity, moisture type, duration, air temp, road temp, pressure, wind speeds, direction of storm tracking, dewpoint, and other factors) that affect the total amount of snow/ice accumulation as well as influence the methodology used to combat the resulting snow and/or ice related road conditions. Therefore, exceptions to this policy may occasionally be necessary and departure from these general policies may be authorized.

Thus, the CCHD Commissioner may order a departure from these general rules when, in his/her opinion, conditions warrant such an action for the duration of a particular event. Upon completion of the event, CCHD shall revert back to this policy for guidance.

Section 2.01 **Travelled portions** of the roadway and/or bridges will, at times, have upon it snow and/or ice in a slippery condition. The entire width of the roadway (including ditches and shoulders) may need clearing of snow, ice, compacted snow or ice, or frost. Snow may accumulate or be piled adjacent to the roadway from time to time. A motorist's sight distance in any direction may be greatly reduced or impaired by these events.

Section 2.02 **CCHD operates** with the expectation that motorists will have their vehicles properly equipped and operate in a safe and secure manner for winter travel, are aware of weather conditions, are aware that winter driving conditions may be present. Motorists should limit winter travel when hazardous conditions exist. Motorists shall drive their vehicles during these conditions with additional caution and preparedness; especially with respect to reduced traction and/or visibility. They are advised to reduce their speed substantially below the posted speed limits during periods of adverse weather.

Section 2.03 **ICE STORMS** are an unusual and rare event which requires a unique approach when compared to "normal" winter storm conditions. For ICE STORM events, plowing and material priority and use will be determined by the Highway Commissioner and the Supervisors. Proceed with storm fighting techniques after consultation and planning with Supervisor as to how to engage.

Article III. PRIORITIZATION OF ACTIVITY

Section 3.01 The primary method of snow removal shall be by plowing.

Section 3.02 **Liquid** salt or liquid salt with additives may be implemented on IH, STH, and limited CTH and Town Roads; as both a preventative action prior to or during the initial phases of a storm event and/or as a supplemental action.

Section 3.03 Salt, sand/salt mix, or salt with other additives may be used to enhance snow/ice removal or to improve traction.

Section 3.04 Liquid Salt Brine may be added to granular (rock) salt material (pre-wetting) or may be applied direct to pavement surface (anti-icing) prior to deployment to the roadway in order to speed-up the salt to snow integration time period and assist with shorter action timeframes for certain storm conditions on specific class roadways.

Article IV. LEVEL OF SERVICE

CCHD does <u>NOT</u> have a "Bare Roads Policy". That is to say, we will <u>NOT</u> guarantee that all CTHs and Locals will be clear of snow and/or ice throughout the winter driving season.

CCHD will have a "white" shoulder policy for gravel and/or vegetated road shoulders. Plowing of the gravel or vegetated shoulder shall NOT occur. Drivers will make every attempt to "carry their plow" during winging operations when the shoulders are not frozen. This policy will preserve gravel material on the shoulders and limit loss of shoulder surface.

Roadways within the County are divided into five (5) classes of roadway service. This classification system determines the level of service and priority for segments of roadway. Distinctions are based on Average Daily Traffic volumes (ADT), jurisdiction, use, local interest, etc.

Section 4.01 CLASS 1 is defined as Interstate Highways

Section 4.02 **CLASS 2** is defined as State Highways or lower volume multi-lane roadways Both classifications include roads under the jurisdiction of the Wisconsin Department of Transportation (IH and STH). **Level of Service and methodology for these roadways are controlled by the WisDOT-CCHD Annual Routine Maintenance Agreement and specifics related to their service are found within the Highway Maintenance Manual, Chapter 6 Winter Maintenance.** Certain aspects are extracted and repeated here for ease of explanation to personnel. CCHD employees operating on the IH and STH system should discuss more in-depth specifics of those systems with their Supervisor.

Generally:

- (a) Plowing is primary method of control;
- (b) During storm events,
 - (i) Class 1 routes shall require 24 hour continuous service and
 - (ii) Class 2 routes shall require 18 hour continuous service;
- (c) "Passable Roadway" (surface free from drifts, snow ridges, ice, snow pack <u>and</u> can be travelled safely at a reasonable speed) conditions on driving lanes, ramps, passing lanes during the event (prevent snow pack formation, keep accumulation workable, minimize bonding with road);
- (d) "Reasonable speed" = speed vehicle can travel without losing traction;
- (e) Preferred winter material for use is SALT;
- (f) Apply material at initial spreader setting of 400# per lane mile (make adjustments per Supervisor instruction);
- (g) Travel lane expectation = "Bare Pavement" as soon as practical <u>after</u> the event.

Section 4.03 **CLASS 3** is defined as CTHs with 1,000 or more ADT and all Locals in Lodi, Pacific, and Randolph, as well as: WIBU Road, Bullen Road, and Johnson Road

- (a) Plowing is primary method of control;
- (b) No service will occur between the hours of 9 p.m. and 3 a.m.;
- (c) Material selection varies by event and conditions (see Supervisor for direction):
 - (i) Primary choice = SALT;
 - (ii) Secondary choice = SAND;
- (d) Place material at initial spreader setting(s) of:
 - (i) 300# per lane mile for salt (adjust per Supervisor instruction);
 - (ii) 500# per lane mile for sand (adjust per Supervisor instruction);
- (e) Travel lane expectation = "2 Wheel Paths Bare" as soon as practical after the event;

Section 4.04 CLASS 4 is defined as CTHs with less than 1,000 ADT

- (a) Plowing is primary method of control;
- (b) No service will occur between the hours of 9 p.m. and 3 a.m.;
- (c) Material selection leans towards sand mix as primary choice and salt only if instructed;
- (d) "Hot Load Sand Mix" (add additional rock salt to existing sand mix pile) when conditions warrant or when instructed by Supervisor;
- (e) Place granular material at following locations: hills, curves, intersections, bridges and approaches, and long straight sections with significant areas under tree canopy (Supervisor advise);
- (f) Initial spreader setting of 500# per lane mile (adjust per Supervisor instruction);
- (g) "Center 5 Feet Bare" as soon as practical <u>after</u> the event.

Section 4.05 **CLASS 5** is defined as Local Roads that serve rural districts (mostly Town Roads but a few CTHs). All Towns except Lodi, Pacific, and Randolph (Class 3); Dekorra and West Point (do not maintain).

- (a) Plowing is primary method of control (material applied on alternate side plowing return trip only);
- (b) No service will occur between the hours of 8 p.m. and 4 a.m.;
- (c) Material selection is sand mix as only choice;
- (d) "Hot Load Sand Mix" (add additional rock salt to existing sand mix pile) <u>only</u> when instructed by Supervisor;
- (e) Place granular material at initial spreader setting of 500# per lane mile: adjust per Supervisor instruction;
- (f) Sand at only the following locations: hills, curves, intersections, bridges and approaches;
- (g) Material is used to provide traction at locations of acceleration/deceleration, speed change, directional change, and other locales where ice may form or develop;
- (h) Surface conditions will be mostly related to ambient air conditions after event and may include: snow covered, centerline clear, 2 wheel paths, snow pack. Covered road driving is likely to last for several days after the event.

Article V. EQUIPMENT OPERATION

Employees are expected to be knowledgeable about the routes they are plowing and the equipment they operate. They are to be familiar with existing conditions that would affect the speed or rate at which they plow and should use every precaution in avoiding plowing practices that would cause damage to County, public, or private property.

Section 5.01 It is the employee's initial responsibility to consider if they are "fit for duty" in compliance with the Substance Abuse Policy (Supervision has the right to verify this determination in accordance with Policy);

Section 5.02 Prior to beginning plowing operations for each and every event, employees are expected to inspect all equipment related to plowing procedures before leaving the CCHD Shop(s). Employees are to make sure that their vehicle is in sufficient condition to provide the services it was designed for. Any malfunction of the equipment, before or during operations, must be reported to their immediate supervisor or Fleet Management as soon as possible. Document compliance of this requirement by the completion of the Equipment Checklist for that specified system as part of the timesheet process at end of shift;

Section 5.03 Individuals operating equipment or vehicles are expected to obey all traffic regulations;

Section 5.04 At a minimum the driver's side tire(s) shall remain on the paved driving surface at all times. In times when the frost is coming out, trucks shall not drive or plow on the gravel shoulder or terrace of the roadway;

Section 5.05 Individuals that happen to have their vehicle stuck or immobile are to call their Supervisor for assistance. In no case will employees assist other employees with towing, pulling, or pushing their own or another vehicle, without confirmation, knowledge, and instruction of their Supervisor or the Fleet Manager;

Section 5.06 Department provides recommended speeds for Operators during plowing or material spreading activities (Michigan DOT reports recommend material deployment is best at speeds lower than the following):

- (a) Class 1 or 2 Routes: speed of 45 MPH (spinner turned off or on lowest rotation setting);
- (b) Class 3, 4, or 5 Routes: speed of 25 MPH (whether plowing or spreading material);

Section 5.07 Drivers that are off their route or out of their seat for more than 5 minutes (or to work in the field on their vehicle or assist another) shall call-in and report to Highway Dispatch that they are unavailable. Dispatch shall confirm driver status if call not retrieved within 15 minutes of acknowledged out of service notification.

Section 5.08 During winter months and at the end of every shift, Driver shall ensure the <u>fuel tank of</u> the plow truck IS FULL and <u>empty the cab of all personal gear and belongings</u>;

Section 5.09 Post winter event, driver shall thoroughly wash and clean the truck. Washing shall occur the same day as plow completion or first thing on the next shift (regardless of the day);

Section 5.10 Individuals operating vehicles or equipment who are involved in an accident or incident are required to report the accident to their supervisor immediately and prior to leaving the scene. All employees must complete and submit an accident/incident report as soon as possible after the incident. All reports shall be completed and submitted with their immediate supervisor within twenty-four (24) hours of the incident.

Article VI. MISCELLANEOUS ITEMS

Section 6.01 **Plow Section Clean-Up**: procedure for plow driver of the mainline road section: Initial plow round focus shall be:

(a) Dip into the side road section an acceptable width (minimum goal of the length of the wing or 22 ft from centerline) and plow through the roadway without backing up being necessary;

- (b) Do not leave windrows of snow on the roadway;
- (c) Do not leave excess materials on the shoulder or above the shoulder plane;
- (d) Assist side road intersection traverse-ability as much as possible without undue delay to your schedule or causing excessive stopping or backing with your truck.

Section 6.02 Encountering Railroad Crossings:

- (a) Come to a complete stop prior to entering the crossing;
- (b) Raise both plows a minimum of 1 foot clear of the road surface;
- (c) If crossing is clear, proceed to other side of the crossing with the truck and return the plows to the required position;
- (d) Resume plowing and/or spreading operations.

Section 6.03 **Encountering Horse and Buggy Users**: driver activity should be geared towards respect for the user and avoidance of excessive noise, abrupt changes (either noise or materials), and slowing vehicle well in advance of the unit being encountered:

- (a) Do NOT pass horse and buggy units and do NOT leave unplowed sections of the roadway due to this encounter;
- (b) Do not make any quick, loud, or abrupt noises that the horse cannot have ample time to adjust to the noise and your presence;
- (c) Reduce plow "chatter" as much as possible (this will automatically occur by reducing speed to 10 or 15 MPH);
- (d) Maintain a consistent engine RPM and/or vehicle speed;
- (e) Leave strobe and warning lighting on at all times;
- (f) Turn the spreader off and do not forcibly deploy any winter road maintenance material that would hit the horse or buggy;
- (g) Have patience and allow the horse and buggy driver time to react to plow truck presence.

Article VII. NO DUTY OR RIGHT CREATED

This policy is **directed toward the establishment of goals and expectations for CCHD employees** regarding snow and ice control on our extensive road network. It is not to be construed to create any duty to any individual or entity of the Columbia County, Wisconsin. This policy does not provide any special protection or service to any particular individual or group. This policy may be affected in total or in part; as a result of acts of God, equipment breakdowns, weather conditions, inadequacy of equipment, state or federal regulations, shortages of personnel, and any other unforeseen, uncontrolled, or unanticipated acts.

Section 7.01 Snow and ice control are considered emergency work and may be performed any time of the day or night. Because of the potential hazard to the public, the need for accessibility and the high incidence of overtime, careful planning and preparation must be conducted prior to the winter season.

Section 7.02 **Hazardous Conditions**. At any time when visibility declines to a point that it is hazardous to the driving public or snowplow operators to be on the roads, snowplowing or ice control operations may be suspended. Suspended operations shall be resumed when visibility improves. Should road closure become necessary, the Commissioner or designee shall notify the Columbia County Sheriff's Department and WisDOT of the closing. An attempt will also be made to notify the media, Highway Committee Chair, and the chief elected official of a local road closing(s).

Section 7.03 **Snow Routes**. All CTH and local roads are considered "Snow Routes". If abandoned vehicles are encountered on the CTHs or Locals, the Sheriff's Department will be contacted and requested to have the vehicle removed at the Owner's expense. If a vehicle is blocking one or more lanes halting snow and ice control operations, it will be moved by whatever means are necessary to reopen the roadway. Any damage incurred in such a move shall be the owner's responsibility.

Section 7.04 **Private Usage.** Under no circumstances will the County use one of its pieces of equipment to push, pull, or tow a stranded, private vehicle from a roadway or ditch. In a life or health threatening situation, a County employee may give brief assistance or call for emergency response.

Section 7.05 **Private Plowing.** Likewise, no County employee may use a County Vehicle or piece of equipment to perform any snow or ice control operations on private or commercial property nor be allowed to use personal equipment for similar purposes during work hours.

Section 7.06 **Damage to Personal Property**. During the course of the season, a certain amount of damage to County or personal property may occur.

- (a) CCHD will not be responsible for damage to turf in lawns or for the deposition of gravel in road ditches; unless there are extenuating circumstances;
- (b) Any damage sustained due to salt brine or other de-icing chemicals placed on the roadway will not be treated or repaired by (CCHD);
- (c) Mailboxes and Fences. CCHD shall make reasonable attempts in its methods to avoid or minimize damage.
 - (i) In the event damage occurs as a result of the force of snow or ice being discharged by the snow equipment, CCHD will not repair or replace the item in question.
 - (ii) If a piece of CCHD equipment physically comes in contact with an appurtenance located in or immediately adjacent to the roadway, CCHD may repair or replace the damaged property on a case by case basis. Special installations or decorative designs will be replaced with standard, conventional materials (boxes, wire woven, barb wire, etc).

Article VIII. EMERGENCY SITUATIONS

Provisions must be made for situations involving emergencies; therefore, in the event CCHD receives notification of an emergency situation, equipment necessary to handle the emergency will be dispatched to assist until the emergency has been resolved. Note the ability of the Department to dispatch personnel immediately may be limited by the hours of operation of the department. For afternormal-hours emergency responses, this means the response time may be up to a minimum of thirty minutes from the time of the call, as the Department does not staff operations outside of normal work hours.

END OF SECTION

7