



Ontario

Ministry of Municipal Affairs & Housing



Association of Municipalities of Ontario

## ONTARIO CENTRE FOR MUNICIPAL BEST PRACTICES

393 University Ave., Suite 1701, Toronto, Ontario M5G 1E6

### BEST PRACTICE SUMMARY REPORT

May 2003

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#### Roads – Winter Control – Spot Treatment in Blowing Conditions

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**Practice Identification:** Roads Winter Control – Spot Treatment in Blowing Conditions

**Case Study Municipality:** Bruce County

**Key Word:** Operational Procedures

**Benefits which resulted from adoption of the Practice;**

- Less build-up of slush from snow attached to wet pavement
- Elimination of increased driver hazard due to spot build-ups of snow or slush
- Faster plough route cycle times
- Reduced use of chlorides

**Description of the Practice in the Case-study Municipality**

The County of Bruce regularly experiences lake-effect snow events with blowing conditions that lead to road closures due to reduced visibility and high accumulations. The County has developed a practice of not applying salt or salted sand on portions of its road system in exposed locations with “straight” alignments, which are often blown clear of snow by the wind. The presence of chemicals would cause wetness on the road to which blowing snow would become attached, thereby increasing the accumulation of snow on the road. Experience has shown that the presence of significant windrows of slushy snow often creates a worse driving hazard to careful drivers than the pre-treatment condition.

Following debate over its authorization, the Council of the County of Bruce has adopted the following practice:

“ During plough/sanding operations, County equipment operators are authorized to stop sanding/salting when they come to exposed sections of roadway where the wind is observed as blowing the snow clear of the travelled portion. This practice is, in general, not followed in advance of stop signs or where there is significant curvature in the road alignment. ”

The practice is historic within the County and elsewhere on low volume roads exposed to blowing snow. However, Bruce County’s policy documentation, with the attendant opportunity of general publicity and local driver awareness of the Level of Service, has been identified as a Best Practice.

Bruce County (pop 61,568 in 2000) is an upper-tier municipality. Its northern part, located on the Bruce Peninsula between Georgian Bay and Lake Huron, is renowned for its ruggedness and forms the northern terminus of the Niagara Escarpment. It has an agricultural (in the southern part of the County) and tourism-based economy, with a relatively low-volume road system.

## **Evaluation of Practice**

### **Efficiency**

While the savings are incidental to the policy’s goal of safer conditions, the practice can reduce the use of salt to some extent by the County, as well as enabling the County’s plough operators to complete their routes somewhat more quickly and more quickly reach areas where ploughing and salting/sanding is needed.

### **Effectiveness**

The goal of winter maintenance operations is to take practicable steps to reduce the impacts of winter weather conditions on the public, given the circumstances of the road. This practice authorizes operators to provide safer driving in blowing snow conditions, by adjusting their normal salting/sanding practices to suit the circumstances.

### **Statutory requirement**

The applicable legislation in year 2000 imposed a duty of care on road authorities to act appropriately, and not to act inappropriately. More recently, Ontario Regulation 239/02 has defined Minimum Maintenance Standards and eliminates grey areas with regard to what is “reasonable” in terms of certain outcome- or performance-based standards.

Bruce County has documented its winter control policies and discussed them in Council as being reasonable in their circumstances. Under MMS, municipalities are required to meet certain performance standards with regard to the treatment of icy roadways. The performance in the circumstances discussed above is the dispatching of the vehicle on the route. The operator exercises his authority to adjust the rate of

de-icing chemicals as appropriate. In the blowing conditions set out above, the appropriate application rate is zero, since predictable but undesirable adverse results would otherwise take place.

### **Replication of the Practice**

The practice has been in place in a number of municipalities, generally on lower volume roads.

Bruce County's documentation process has been found to meet the spirit of the recent Minimum Maintenance Standards. These Standards require each municipality to take action which is reasonable in its circumstances, taking into account the character and location of its roads or bridges, and to document its Level of Service. Bruce County's Winter Maintenance LOS document dated Feb. 6, 2003, is the current version of its policy, outlining the rationale of the County.

Each municipality will need to go through its own process of considering its specific winter maintenance conditions and discussing what responses are reasonable on its types of road in various weather conditions.

Implementation of a Level of Service policy could follow immediately after the Council discussion and relevant communication with the public.

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