

**ONTARIO CENTRE FOR MUNICIPAL BEST PRACTICES**  
393 University Ave., Suite 1701, Toronto, Ontario M5G 1E6

**BEST PRACTICE SUMMARY REPORT**  
**March 2003**

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**Roads – Winter Control – Two-shift Operation (BP 5-03)**

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**Practice identification:** Roads – Winter Control – Two-shift Operation

**Case-study municipality:** County of Middlesex

**Key Words:** Operating Procedures

**Benefits which resulted from the adoption of the practice:**

- **Timely response to winter conditions and application of salt/sand materials**
- **High level of service corresponding to high traffic volumes,**
- **Meets Commercial Vehicle Operator Regulations and Employment Standards Act requirements re: hours of work**
- **Prompt notification to road managers about weather conditions**

**Description of the Practice in the case-study municipality:**

The County of Middlesex provides a two-shift winter operation, coupled with a 24-7 winter patrol, that is scheduled from November to April. Their fleet, which includes 6 tri-axel units, totals 16 combination trucks. Regular shift coverage is from 05:00 until 23:00, with overtime coverage as required in the 23:00-05:00 period.

This practice was developed in 1996-7 during a concerted movement away from two person operations (driver + wingman), coupled with the transfer to the County of former Provincial highways, and a rationalization of the County arterial road system to include only roads with annual average traffic in excess of 1500 vehicles per day.

The County of Middlesex (pop. 62,183) is an Upper Tier Municipality that surrounds the City of London in the southwest part of the Province. It is generally

flat to rolling farm land with considerable vehicular traffic due to the London area commutershed and general economic activity. It is bisected by the Province's 401/402 Major Arterial corridor to Windsor & Sarnia border points with the United States. Its system is influenced by periodic closures due to accidents on those highways. Travel on the County road system totals over 5,000,000 vehicle kilometres per day on average.

## **Evaluation of the Practice**

### **Efficiency**

The County spends a significant portion of its annual operating budget on Winter Control but, based upon relative costs per lane kilometre, pays almost no premium in costs in order to provide two-shift coverage.

### **Effectiveness**

The County's statement, in response to the supplemental questionnaire, that it has not paid out a road claim related to winter maintenance since 1996 is striking as a measure of the effectiveness of its winter control operations, particularly given its high traffic volume system.

The recent introduction of Minimum Maintenance Standards (O-Reg 239/02 and Sec 44 (3) (c) of the Municipal Act 2001) indicates that, for higher classes of roadways, municipalities must be able to remove snow or treat icy conditions relatively non-stop under some storm conditions in order to claim compliance with the standards. Middlesex's operations better accommodate that storm condition than single-shift operations .

### **Statutory requirement:**

Municipal fleet operations must accommodate both Commercial Vehicle Operator Regulations and the Employment Standards Act. Municipalities as fleet owners require CVOR compliance. That regulation limits driving time and on duty time per day and per week and enforces rest periods. Under the ESA, employees are not allowed to work more than a certain number of hours per week or per cycle.

Middlesex's two-shift approach greatly reduces the need for mitigating measures to comply with both applicable rules. There is no record of continuous winter operations ever needed in excess of 60 hours per shift in any one week in Middlesex.

Recently the Ministry of Labour has confirmed that winter control operations are exempt from the Employment Standards Act.

## **Replication:**

The practice has not been published elsewhere.

The practice is most applicable to municipalities with higher traffic roadways.

Several other municipalities reported providing partial night shifts for specific high volume roads under their jurisdiction. A common variation is to have the night patrol function performed by operators in Combination units rather than pick-up trucks so that, as required, they begin treatments on higher volume roads prior to the road crew being called in.

This practice is of interest to Public Works in general; however, any operating department with high overtime usage and call-out travel time issues could use it as a model to consider a two-shift operation.

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No trademark or copyright issues are involved in implementing this practice.

Implications of a second operating shift re: collective agreements and human resources will need to be examined on a case-by-case basis

With facilitating agreements and policies in place, the practice could be implemented with 6 months lead time to the start of winter.

No specialized equipment is required.

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