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SALT MANAGEMENT PLAN

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, September 23, 2004, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that:

1. The Regional Municipality of York adopt the Salt Management Plan as outlined in *Attachment 1*.

2. PURPOSE

The purpose of this report is to seek Council approval for the adoption of the Region's Salt Management Plan in response to Environment Canada's request for all road salt users to develop salt management strategies.

3. BACKGROUND

The Region is responsible for the winter maintenance of approximately 1,028 kilometres of road, approximately 3,000 lane kilometres. In 1994, a bare pavement policy was adopted by Council for all of the paved sections of the Regional road system.

Since the adoption of the bare pavement policy, the Region has developed a Quality Control Plan to ensure salt is only applied in a controlled and effective manner when required, in the right amount, at the right time and in the right place. The plan includes:

- Monitoring salt application records each time material is applied to the road.
- Establishing application rates for individual road sections based on the annual average daily traffic, speed and number of lanes.
- Training of operators on the policies for material usage and winter plowing operations.
- Technical improvements using ground speed oriented spreaders to control the amount of salt applied to the road and Road Weather Information System (RWIS) technology to provide specific weather and precipitation forecasts.
- Anti-icing materials used on roadways with traffic volumes of 20,000 vehicles or greater per day.

3.1 Environment Canada's Road Salt Concerns

In 2001, Environment Canada released an assessment report stating that road salts are entering the environment in significant amounts and are posing a risk to plants, animals, birds, fish, lake and stream ecosystems and groundwater. The report recommended that salt be designated toxic under the Canadian Environmental Protection Act (CEPA). No announcement has yet been made designating road salts as CEPA-toxic. It is not expected that when Environment Canada designates road salts as toxic, they will ban road salts, but rather Environment Canada will require users to develop management strategies encouraging improvement of salt handling, salt reduction through the use of new technologies, and the initiation of Salt Management Plans. The Region's Quality Control Plan meets the requirements of a Salt Management Plan. Environment Canada requires that a Salt Management Plan be prepared and submitted for their records.

4. ANALYSIS AND OPTIONS

The Transportation Association of Canada has recommended that a Salt Management Plan should contain best management practices to protect the environment from the negative impacts of road salts, while it fulfills its obligation to provide safe efficient and cost-effective roadway systems. The Salt Management Plan is attached to this report (*Attachment 1*). The guiding principles of the plan are outlined below:

1. Salt Management Policy and Objectives – outlines the Regions commitment to salt management practices.
2. Winter Maintenance Policies – policies that set the level of service and how the Region manages salt.
3. Operational Practices and Strategies – details the effective management of road salt during winter maintenance activities.
4. Monitoring and Updating the Salt Management Plan – provides for monitoring the use of salt on the road system and updating the plan should changes be required.
5. Summary

Adoption of the Salt Management Plan by the Region will formalize the Quality Control Plan process in existence since the adoption of the bare pavement policy in 1994.

The Region has been aware of the environmental concerns and the negative side effects which salt has on the environment since the mid 1980's and has been constantly looking for ways to reduce our salt dependency, while maintaining user safety, which remains an important priority within winter maintenance operations. Although there is ongoing research into the use of alternatives to road salt (sodium chloride) in winter maintenance, salt continues to be the most cost effective de-icer across Canada.

5. FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

6. LOCAL MUNICIPAL IMPACT

There are no local municipal implications associated with this report.

7. CONCLUSION

The use of de-icers such as salt for winter maintenance has had a significant impact on the environment and traffic safety on the Regional road system. In order to provide the winter quality standard of bare pavement, to provide a safe road for the users and to meet the goal of reducing the use of salt for winter maintenance, it is recommended that a Salt Management Plan be adopted to meet the increased environmental concerns regarding salt usage.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is included with this report.)