

Best Management Practices for Road Crews

WHY DO WE NEED BMPs FOR ROAD CREWS?

Protecting the quality and quantity of clean drinking water is important to all communities. Routine road maintenance practices including managing stormwater, snow, and ice have a significant impact on local surface water and groundwater quality. Many communities throughout New England institute Best Management Practices (BMPs) for road crews to minimize roadwork impacts on nearby surface water and natural resources, increase efficiency and reduce operating costs.

HOW DO BEST MANAGEMENT PRACTICES FOR ROAD CREWS WORK?

In order to protect water quality through Best Management Practices, towns must first identify water resources and their watersheds including all past, present and future possible sources of drinking water from surface and groundwater supplies. Once watersheds have been delineated and mapped, place signage along roadways to indicate boundaries of the public water supply watershed. Within these boundaries, there may be special provisions for road maintenance practices such as reduced anti-icing.

Garages and maintenance yards should also follow best management practices for storage and disposal of materials. Salt piles and sand piles should be housed in sheds to reduce loss to rain, and prevent salt and sand runoff to rivers, streams and lakes. Stormwater in maintenance yards should be adequately mitigated and treated on-site wherever possible through low-impact designs, retention ponds and natural infiltration (except in the case where chemicals may be present). Maintenance products such as engine oil, gasoline, diesel, hydraulic fluid should be stored and disposed of in accordance with state laws.

Tree removal or trimming along roadways should be performed when necessary, but should follow protocols to reduce soil erosion and reduce damage to riparian buffers along rivers, lakes and streams.

Policies and guidelines for road crew best management practices should be adopted by local Highway Departments, and training provide to employees in the use of BMPs.



Municipalities should re-visit best management practices on a one to five year time frame to ensure that up-to-date methods are being implemented.

Employees should be trained in best management practices including:

- » Proper installation and maintenance of erosion and sediment control practices.
- » Familiarity with National Pollution Discharge Elimination System (NPDES) requirements, particularly with regard to Total Maximum Daily Loads for salt.
- » Develop equipment operator skills to minimize environmental impacts when working in environmentally sensitive areas.
- » Culvert sizing and natural-streambed design for fish populations and other aquatic species.
- » Techniques in snow and ice removal with sand, salt, and other applications. Such techniques may include reduced salt application areas, use of calibrated salt spreaders, and proper storage and handling of road treatment chemicals.
- » Methods to minimize salt or chemical migration from roadways to drinking water supplies.
- » Use of innovative techniques to increase operational efficiency.

HOW DO BEST MANAGEMENT PRACTICES PROTECT WATER SUPPLIES?

Towns can adopt regulations and bylaws for road salt, sand, and road-salt alternatives application for town employees, plowing contractors, parking-lot owners and residential use on driveways and walkways. Best management practices for road crews are critical to balancing safety needs with water quality protection.



HOW AND WHERE ARE BEST MANAGEMENT PRACTICES FOR ROAD CREWS WORKING?

In New Hampshire, The Town of Enfield has implemented best management practices to protect water supplies. Larger cities in New England are using technology to reduce salt dispersal.

The Vermont Better Roads Program is assisting towns with grants to inventory road erosion and develop capital improvement plans to improve them. In addition, grants are also available to correct existing erosion problems in Vermont. For more information go to

www.vt.nrcs.usda.gov/rc&d/bbcoverpage.html

In Massachusetts, the Baystate Roads Program offers statewide training on winter salt and sand practices, as well as a range of best management practices for road crews. A schedule of training opportunities can be found at

<http://baystateroads.eot.state.ma.us/Resources>

AASHTO CENTER FOR ENVIRONMENTAL EXCELLENCE:

<http://www.environment.transportation.org/>

US EPA:

www.epa.gov

FEDERAL HIGHWAY ADMINISTRATION:

www.fhwa.dot.gov

