ROAD SALT & SALTED SAND STORAGE GUIDELINES

April 2020

Improper storage and loading procedures associated with road salt and salted sand can significantly pollute ground and surface water resources. This can cause health problems for the general public and problems to aquatic habitat. There can also be the potential for serious liability for the owners and/or operators of the storage facility. Following these simple siting and management guidelines can significantly reduce the risks of impacting surface waters and contaminating ground water resources.

I. Location.

Salt and salted sand stockpiles should be located where salt is not likely to leach into the ground water and especially into drinking water wells or into springs. Stockpiles should not be located directly upgradient of or near any existing wells or springs. Conversely, new wells and springs should not be developed directly downgradient of an existing salt or salted sand storage facility. Stockpiles should not be located where material can erode and directly runoff into surface waters. If possible, salt and salted sand storage facilities should be located:

1. out of the designated flood hazard areas and mapped DEC river corridors (under certain municipal and state regulatory jurisdictions, they are prohibited);
2. outside of any Class I and II wetlands and their associated buffer zones;
3. where materials will not erode or runoff directly into surface waters of the State or wetland;

d. on very low permeability soils (clay) or in a ground water discharge zone;

e. outside a Class I or Class II ground water area; and,

f. outside a ground water recharge zone or a Source Protection Area.

The Drinking Water and Groundwater Protection Division, Water Resources Section of the Department (802-828-1535) is available to assist towns and other public agencies with safely locating stockpiles of road salt and salted sand. Review of local land use regulations and town policies should be performed. The Stormwater Program should also be consulted to determine whether review or permitting requirements apply:

<https://dec.vermont.gov/watershed/stormwater/contacts>https://dec.vermont.gov/watershed/stormwater/contacts

II. Pads and containment walls.

Stockpiles of road salt and salted sand should be situated on impervious surfaces, such as pavement or concrete to help prevent salt-laden solutions from seeping into the ground and to facilitate any cleanup of spilled materials. Gravel and stone are not appropriate materials for stockpile pads. Loading areas should also be on pavement or concrete for the same reasons. Storage facilities should be designed and constructed with ~~C~~containment or retaining side walls such as poured concrete or concrete blocks ~~should also be installed~~ to allow for more efficient loading with less salt spillage and to minimize possible movement of solid or dissolved salt.

III. Impermeable cover.

Road salt and salted sand stockpiles should be covered to prevent precipitation from dissolving the salt and transporting it to the ground surface where it can runoff to surface water or leach into ground water. Stockpiles should be housed within a storage building meeting or exceeding the VT Agency of Transportation standards (see attached plans). Please contact VTAOT for more information at this link:

<https://vtrans.vermont.gov/operations/technical-services>

Although salted sand piles may be too large for a reasonably sized building, the pile should still be covered with a flexible impermeable material. Studies have shown that covering stockpiles and preventing the loss of salt can pay for the facility in a short period of time.

IV. Site maintenance or housekeeping.

Prompt and efficient cleanup of spilled salt or salted sand immediately after truck loading or routine storage facility operations can significantly reduce the amount of salt exposed to dissolution and transport into the ground.

All of the above will help to minimize the potential impact to Vermont's water resources from salt and salted sand storage.

Department studies have revealed impacts from road salt to surface water quality and high sodium levels in drinking water from road salt are a known and significant risk to human health.