

# Snow Disposal

## *Recommendations for Environmentally Safe Disposal*

Snow removed from roadways can harm receiving waters. Melted snow often contains salt, sand, debris, and chemicals. Snow disposal has, therefore, become a concern to environmental agencies and to the public.

Snowmelt need not cause harm if properly disposed of. Local agencies are aware that they can no longer dump snow directly into surface water, or on ice over surface water. Most also know they cannot dump snow close to surface waters. This article will describe alternatives to these practices that provide environmentally safe snow disposal.

### Environmental Concerns

Heavy metals, inorganic salts, aromatic hydrocarbons, and suspended solids accumulate on road surfaces. Vehicles deposit oil, grease, rust, hydrocarbons, rubber particles, and other solid materials. Salting and sanding practices, for example, may leave concentrations of chloride, sodium, and calcium on the roadway surface. These are contaminants, and potential pollution.

Strictly speaking, anything other than two atoms of hydrogen and one atom of oxygen is a water contaminant. Contaminants become pollutants when they interfere with the normal life cycle functions of organisms living in or dependent on the water source. (FHWA Environmental Technology Brief)

Rain or snow storm events often wash contaminants off highways. Pollution occurs when excessive contaminants remain when the runoff reaches a receiving water.

Proper snow disposal practices dilute contaminants. This reduces the possibility of their being excessive when they reach streams and lakes. Proper disposal also reduces erosion during flow to water bodies. The following are recommended snow disposal practices.

### Snow Disposal Recommendations

Snow disposal locations should allow melt water to flow at a low velocity to a water body. High velocity flows carry particles long distances.

They also pick up additional materials by eroding surfaces in their path. Agencies should pave or riprap channels that even periodically have high velocity flows.

New Hampshire Department of Environmental Services rules prohibit dumping of snow directly into waterways. It has published recommendations in its "Snow Disposal Guidelines" Fact Sheet.

- Disposed snow should be stored near flowing surface waters, but at least 25 feet from the high water mark of the surface water;
- A silt fence or equivalent barrier should be securely placed between the snow storage area and the high water mark;
- The snow storage area should be at least 75 feet from any private water supply wells, at least 200 feet from any community water supply wells, and at least 400 feet from any municipal wells. (Note: Snow storage areas are prohibited in wellhead protection areas);
- All debris in the snow storage area should be cleared from the site prior to snow storage; and
- All debris in the snow storage area should be cleared from the site and properly disposed of no later than May 15 of each year

If a municipality provides locations for private contractors to deposit snow, they should require disposal according to these recommendations.

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### Sources

- "Is Highway Runoff: A Serious Problem?" FHWA Environmental Technology Brief. McLean VA: Turner-Fairbanks Highway Research Center. <http://www.tfhr.gov/hnr20/runoff/runoff.htm>
- "Snow Disposal Guidelines." Environmental Fact Sheet WMB-3, NH Department of Environmental Services. 1992. <http://www.des.state.nh.us/factsheets/wmb/wmb-3.htm>