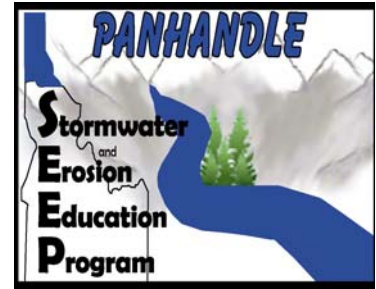


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BMP of the Month (NOVEMBER): Snow storage planning

Unlike wastewater, which flows to a treatment plant, stormwater in many areas flows to waterways without any additional treatment; this is often the case with snow. Snowmelt runoff and rain-on-snow events present some of the highest pollutant loading and most difficult management challenges in the course of a year in regions with cold climate (such as ours). The snow that accumulates on our driveways and county/city roads is not the clean, fluffy white flakes that we are tempted to catch in our mouths and roll around in. Snow that collects on roads is often chock full of contaminants such as salt, sand, gravel, oil, antifreeze, and broken pavement.

Effective management strategies for winter in our region involve appropriate snow storage measures. The best thing you can do is plan ahead for snow storage sites and techniques; otherwise, you just might find yourself buried.

It is illegal (and unsightly) to dump plowed snow directly into water bodies. Keeping salt, sand, and other pollutants in winter snow piles out of waterway is vital in order to conserve and protect our natural resources.

“Dumping contaminated snow into lakes, rivers and other waterbodies is the same as dumping contaminated rainwater into those waterways,” says Julie Congdon, Stormwater Compliance Assistance Coordinator for EPA. “Sand and gravel in the snow can cloud the water and smother aquatic habitats; debris accumulated in the snow can harm wildlife.”

Last year, the snow in our neck of the woods was pretty intense; many folks experienced collapsed roofs, damage to buildings, and cabin fever from being snowed in. Though we don't have any control over the weather, we do have control over our ability to respond appropriately. We know it can snow a lot here, so we might as well be prepared. When planning for snow storage, there are some very important things to consider.

- Avoid storing snow near water supply wells, stormwater drains, aquifer recharge areas, or surface waters. A minimum vegetated buffer strip of 50 feet should be maintained between your snow storage site and any surface water.
- Consider distances and driving times for dumping snow at your site.
- Make a plan for site maintenance during both winter and summer growing season.
- Consider the size: make sure you have adequate space for a snow storage site in the case that there is an excessive amount of snowfall this season.
- Heavy equipment may need to be brought in to push the snow piles around to enhance the melting process.
- Be sure to clean up solids/litter when the snow thaws in the spring.

Another issue is salt, sand, and de-icing agents. Be sure to store salt piles under cover and on a flat, impervious surface so salt does not wash into the ground. Remove sand from streets in early spring to avoid runoff into nearby waterways. Apply road salt carefully. Identify sensitive areas such as public water supplies and ponds, and consider de-icing alternatives. A tremendous amount of research has been dedicated to exploring alternative de-icing products that have less ecological and economic impacts than traditional road salts. Non-chloride based alternatives include acetate and formate products such as calcium magnesium acetate (CMA), liquid potassium acetate, and sodium acetate. Storage sites have historically been a large source of chloride contamination through runoff.

In many urban centres, snow is removed to a snow disposal site – or snow dump. By depositing snow in one location, road authorities are concentrating the potential contaminants, including road salts, oil, grease and heavy metals. Therefore BMPs include taking precautions to ensure that snow dumps are not located near environmentally sensitive areas and are able to contain and treat runoff if necessary.

“It is best to plan in advance on how to manage snow storage, says Congdon. “By having systems and practices in place when the snow comes, pollution to the waterways can be avoided.”