

## Good Snow Removal Practices Can Help Prevent Pollution of Lake Tahoe

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Since Lake Tahoe's watershed receives most of its precipitation each year in the form of snow, the way we clear snow from our driveways and parking areas and store it has an impact on Lake Tahoe. Since snow removal activities can pick up pollutants from the pavement and mix them into the snow, plowed snow often contains contaminants. If we pile our snow on vegetated or mulched landscapes that have the capacity to absorb the water from melting snow, these pollutants will be filtered by the soil and will not end up in Lake Tahoe. In fact, one of the main reasons that private property owners at Lake Tahoe are required to install best management practices (BMPs) around homes, businesses, and paved areas, is to make sure rainwater and melting snow soak into the soil instead of running off and carrying pollutants to the lake.

Snow piles can contain trash; nutrients; fine sediments; salt; sand; cinders; pollutants from vehicles, such as petroleum hydrocarbons, antifreeze, oil, and heavy metals; and materials from road and tire wear. If snow is stored in roadside ditches, on pavement that drains to storm drains or ditches, or in stream environment zones (SEZs), its contaminants will often be carried with snowmelt directly into the lake. Plowing snow into SEZs can also damage the stream channel by altering stream paths, causing stream bank erosion and undercut-

ting banks. The plowed snow can even cause flooding by blocking the stream's natural course. Plowing snow into SEZs and onto shore-zone areas in the Lake Tahoe Basin is prohibited by the Lahontan Regional Water Quality Control Board (RWQCB) and the Tahoe Regional Planning Agency (TRPA).

Other improper areas for snow storage are storm water treatment facilities, including basins, and unstable soil. Try to avoid blocking drainage facilities such as drop inlets in commercial parking lots, vegetated swales, and rock-lined channels. Plowing snow into storm water basins reduces their capacity to treat and hold polluted water during rainstorms and snowmelt. Storing and plowing snow onto compacted bare soils and dirt roads that are unstable or steep is not recommended, because the permeability of water through compacted soil is very low, and melting snow can cause erosion. Snow removal from dirt roads is subject to TRPA regulations.

Another snow removal practice that can be damaging to water quality is blading. This occurs when plows lower their blades below the normal ground surface level and plow the upper layers of soil, in addition to the overlying snow. This disturbance of the soil damages vegetation and creates unstable soil conditions, making the soil more vulnerable to erosion.

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# The Lake Tahoe Report

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Landowners are responsible for the snow removal practices that are conducted on their property. First of all, limit your use of sand and de-icers (salt). Use only where needed and only as much as needed. Second, develop a snow removal and storage plan for your property that is environmentally friendly. Put markers up around your property that will warn your plowing service of planters, mounds of soil, and unstable areas, and designate safe areas to store the snow. Communicate with your plowing service before the snow season begins, and find a snow storage area that is relatively flat with permeable soils that are well vegetated or mulched, or an area that is paved and drained to an infiltration system. If no such area exists on your property, you can create one by installing best management practices, or you can have the snow hauled out of the basin. If you want to install BMPs, there are agencies that will provide a free BMP site evaluation and a report on the basic design information you will need to allow your landscape to infiltrate rain and melting snow and to make it more attractive. To request a site evaluation, you can call the BMP hotline, (530) 573-2210, or the conservation districts, (530) 573-2754 (California) or (775) 586-7208 (Nevada). Depending upon where you live, you may also need to contact your local building or planning department to learn about local snow storage requirements.

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