

Improper Snow Removal Can Be Damaging to Lake Tahoe

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Did you know that improper snow storage and removal practices can damage water quality? Snow can contain trash; nutrients; sediment; salt; abrasives such as sand or cinders; and pollutants from vehicles, such as petroleum hydrocarbons, antifreeze, oil, metals and materials from road and tire wear.

When snow storage space is limited, some businesses and residences plow snow into stream environment zones (SEZs) or into shore-zone areas because they are convenient, out of the way, and low-lying. When snow melts, pollutants and nutrients can directly enter streams and Lake Tahoe. Plowing snow into SEZs can damage stream channels by altering stream paths, causing stream-bank erosion and undercutting. In addition, the plowed snow can cause back-flow and 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 stormwater 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. Pushing snow into these areas can create flooding, damage surrounding areas, and affect drainage improvement projects. Plowing snow into stormwater basins reduces their capacity to treat and hold storm water during rainstorms and

snowmelt. Storing and plowing snow onto bare soil and dirt roads that are unstable or steep is not recommended, because the ability to permeate through compacted soil is very low, and melting snow can cause erosion. Snow removal from dirt roads is also subject to TRPA regulations.

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

Landowners are responsible for the snow removal practices that are conducted on their properties. It is beneficial to develop a snow removal and storage plan for your property that prevents environmental and other problems. There are several steps that you can take to properly remove and contain plowed snow for infiltration. Plow snow only off paved or hard surfaces, such as driveways, decks and walks. Put markers up around your property that will warn your plowing service of planters, mounds of soil, and unstable areas. Identify areas to store the snow. Communicate with your plowing service before the snow season begins and find an area to store snow on your property that has rapid permeability or is paved. Deposit or store snow only in areas that can handle the snowmelt, such as in graveled infiltration drainages, vegetated areas that are not connected to streams and are not wet (marshy) part of the year, and paved areas that drain to infiltration

(Continued on page 2)



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The Lake Tahoe Report

(Continued from page 1)

areas.

If no such snow storage area exists on your property, consider designing an attractive infiltration system on the soil adjacent to the driveway that has a low, landscaped berm around it to contain meltwater from plowed snow. As a last resort, explore the alternative of having the snow hauled away.

Contact the Nevada Tahoe Conservation District, the Tahoe Resource Conservation District, the TRPA, or the Lahontan RWQCB (California only) if you have questions about proper snow removal or storage.