

Prevent Runoff from Polluting Lake Tahoe

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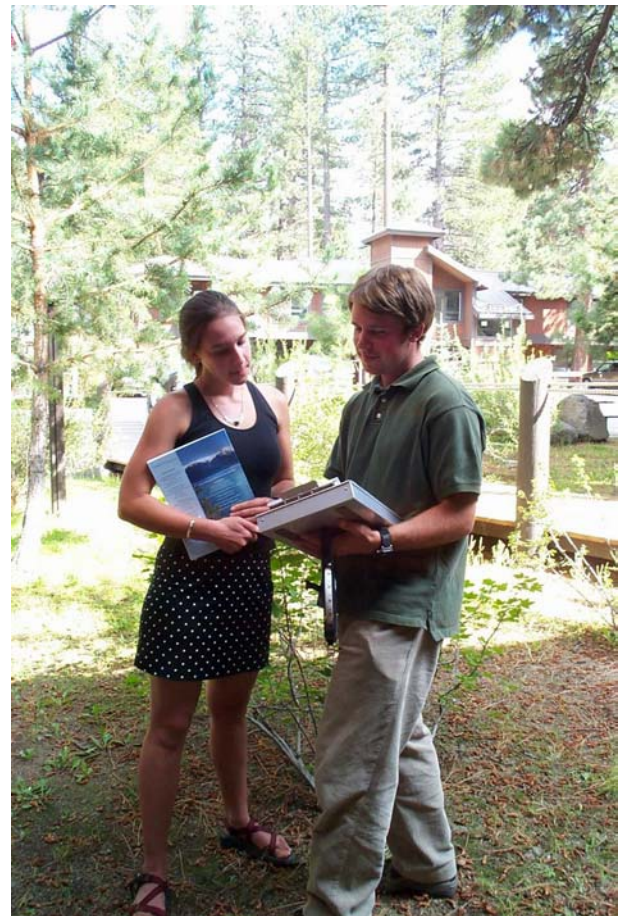
The terms “urban storm water” and “polluted runoff” are being used almost interchangeably across the nation. They both refer to rain or snow that landed on rooftops, pavement, compacted soil, or some other impermeable surface that prevented it from soaking into the soil. Except where the impermeable surface is a hard bedrock outcrop, as in some local climbing haunts, water that runs off the land instead of soaking in is unnatural and bad for the environment. Runoff is the enemy.

Numerous scientific studies have shown that in undisturbed forests, over 95 percent of rain and snowmelt soaks into the ground. In nature, most water reaches streams not by flowing across the forest floor and dropping in, but rather by infiltrating straight down through the soft, absorbent, sponge-like forest floor and traveling laterally and slightly down hill until it enters a stream or wetland from underground.

Runoff is the enemy because it picks up soil particles through the process of erosion, and carries those particles and other pollutants into the nearest creek, roadside ditch, or storm drain, and then usually directly into the lake. In some urban areas, our tax dollars are being spent to build large artificial wetlands at the foot of our urban drainage ditch and storm drain network to try to clean up the polluted water before it enters the lake. These excellent projects are part of the Lake Tahoe Environmental Improvement Program (EIP), and you can see them in many communities, such as Tahoe City and South Lake Tahoe. In many cases, these

treatment projects are being built to replace the water filtration that once occurred in natural wetlands and, in most cases, was destroyed by human development.

However, these projects will not succeed at filter-
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The Lake Tahoe Report

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ing all the harmful nutrients and fine sediments out of urban runoff unless they are well maintained and properly sized for the amount of runoff to be expected in the “design storm,” which is defined in Tahoe as 1 inch of rainfall in one hour. These public EIP restoration projects are generally designed to filter the urban storm water runoff from public property under the jurisdiction of the project leader. These properties include street and road right-of-ways and all impervious surfaces from other public facilities such as municipal parking lots, playgrounds, and public buildings. They are not designed to handle runoff from private property.

One of the nationally famous aspects of the Lake Tahoe EIP is that all jurisdictions, including the private sector, have agreed to do their part to prevent polluted runoff from entering the Lake. Large public EIP water treatment projects just won't work unless all private property owners accept their role in the EIP. This includes taking responsibility to capture the runoff from their rooftops and pavement, store it in some kind of detention pond or underground storage vault called a dry well, and then infiltrate it into the soil from the storage area. If the property happens to have soil with rapid permeability, the best management practices (BMPs) might involve less excavation and cost less. If the home and driveway are situated on soil with medium or slow permeability, larger infiltration systems might be needed to store the storm runoff until it can soak safely down to the water table. Homes with driveways that slope down to the street need special devices to keep the runoff from reaching the street gutter or roadside ditch.

Nobody wants to see our local, state and federal tax dollars spent on projects that won't save the lake. Most taxpayers want publicly financed improvement projects to be designed to handle the runoff from public pavement, and do it well. Conversely, most taxpayers would object if artificial wetlands had to be three to four times as large and costly because some homeowners failed to infiltrate their private runoff.

Because infiltration of runoff from private land is the responsibility of property owners, five public agencies at Lake Tahoe have formed a coalition to give them information and technical assistance. They formed Partners in Conservation (PIC) to help private property owners get solid design recommendations about home and small business BMPs through the FREE BMP Site Evaluation Program. Small business owners can call for a free evaluation from TRPA, (775) 588-4547, Ext. 205. Homeowners who request site evaluations will receive a clearly written report, a free copy of the 160-page Home Landscaping Guide for Lake Tahoe and Vicinity written by the University of Nevada Cooperative Extension, and a one-on-one consultation, if the homeowner can arrange to be at home during the site inspection. Homeowners can schedule their evaluations by calling the Nevada Tahoe Conservation District, (775) 586-7223, Ext. 1; or the Tahoe Resource Conservation District, (530) 543-1501, Ext. 6.