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Engineering • Surveying • Planning

The View from Andy's Desk

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October 2, 2018-Andrew R. Cassano is a Town/Regional Planner and Professional Land Surveyor with over 49 years of experience in Northern California. He is CEO of Nevada City Engineering, Inc., a firm offering regional planning, surveying, and civil engineering consulting to the private and public sector since 1978.

Keep Your Dirt to Yourself!

Letting your land erode used to just be a bad idea, but now it is very illegal. State and local laws absolutely prohibit allowing soil and sediment from leaving your property.

Erosion is a bad thing for the land owner, as top soils that took eons to develop are washed away for good leaving stark subsoils. The economic impact to farms and ranches is immediate. Erosion can clog gutters and drainage pipes, requiring expensive private and public maintenance.

Erosion is bad for the environment as a major water pollutant. Soils carry nutrients that act as fertilizers, spurring algae growth in lakes and water ways, adversely impacting fisheries and aquatic life. And nobody likes those fuzzy rocks in our beautiful rivers.

Several bezzillion dollars are being spent at Lake Tahoe to systematically eliminate sediments from reaching the lake. Many of those summer-flag-person construction stops around the lake are for crews installing new drainage facilities on public highways and roads, to divert and filter storm runoff before mud can enter the lake. The famous clarity of Lake Tahoe is the beneficiary, along with healthy water quality, fish, and recreationalists.

All construction projects are mandated to maintain a good erosion control plan and the grading season is usually limited. Typical grading shut down periods run from October 15th to May 1st, with exceptions allowed by the building official during particularly dry winter periods.

For projects that disturb over 1 acre (43,560 square feet), the State mandates a Storm Water Pollution Prevention Plan (SWPPP) be prepared, implemented, and reported on constantly by certified preparers and practitioners. State

officials monitor construction projects and reporting. Failure to comply with SWPPP laws can result in hefty daily fines. SWPPP monitoring is very expensive, especially for unfinished sites during the winter months. If at all possible, it is best to finish each project by the end of the season, apply permanent erosion control, and close out the SWPPP.

Erosion control techniques are basic common sense. Temporary and permanent erosion control is not terribly expensive. Remember, the simple idea is to retain all of your dirt molecules on your property.

Exposed bare soil areas are typically treated with a grass seed mix, perhaps fertilizer, and a mulch, such as straw to break up the rain drops and facilitate germination of the grass seed. Hopefully Fall rains will come at the right time and intensity to germinate grass seeds and establish growth before heavier rains.

But Fall rains are fickle and sometimes temporary irrigation is needed. Treated areas often have some patches where the seed did not take, and they require replanting. Maintaining erosion control through the winter is absolutely necessary. Constant monitoring and repair is required, whether you are operating under a SWPPP or not.

Other techniques include straw waddles (fiber roll) and silt fencing placed and staked along the contour to filter sheet flow before it leaves the property. Sometimes a temporary sedimentation pond is used to settle out the silt. All such techniques are collectively referred to as Best Management Practices, or simply BMP's.

We provide a basic erosion control plan with all our grading and drainage plans and we can prepare and monitor SWPPP's. Email or call us with any question or a quote.

Other resources:

[Nevada County Resource Conservation District
Erosion and Sediment Control Plans
Placer County Stormwater Quality Program](#)