SLOPE STABILIZATION

PLANNING CONSIDERATIONS/TIPS - Prevention is the key!

Don’t saturate slopes with irrigation, surface or sub-surface drainage

Minimize cuts. Don’t cut into slopes if there is an alternative.

Retain cuts, or in some instances, slope back to a stable angle and revegetate

Control surface drainage and runoff Note: In some instances, subsurface drainage may be coming from upslope and surrounding properties.

Maintain and/or establish deep-rooted plant materials. Preferably native plants.

Don’t “load slopes” with weight (brush, broken concrete, side-casted soil, etc.). Sometimes trees can also load a slope, depending on size, species, orientation, health

De-water subsurface seeps, springs or depressions that collect water on or above the slope. Consider planting willows and other water loving vegetation in seep areas.

Streambank stabilization and/or maintenance may be necessary if there is a stream or other waterway cutting into bank toes especially on potentially unstable slopes.

Don’t cover with plastic sheeting without professional advice. Note: In most cases, plastic sheeting is the wrong thing to do and will likely make slope instability problems worse or create other issues.

Consult geo-tech experts/registered geologists for evaluation of deep-seated issues

Select competent/licensed contractors to perform any work necessary. Note: Structural slope protection should not be designed or performed by the average property owner.

Note: Some slopes are actually fill slopes with uncompacted, and sometimes non-native soil material, that is more prone to erosion and sliding. This is especially true of slopes along the downside of roadways, driveways and yards bordering abrupt slopes. Slope failures may also be associated with earthquake fault zones and/or over-steepen slopes (greater than 2:1), especially along streambanks and in other areas where there may be geologic or topographic instability.

This fact sheet was developed by Rich Casale who is a natural resource specialist and a Certified Professional Erosion and Sediment Control Specialist (#3). He has assisted many communities and hundreds of property owners with natural resource issues throughout his 45-year career with the USDA Natural Resources Conservation Service.  richcasale3@gmail.com;  831-359-1297