

Guide To Determining the Need For Input From a Licensed Geologist During THP Preparation

Registered Professional Foresters (RPF) should address the following questions during Timber Harvesting Plan (THP) preparation. RPFs are encouraged to review California Division of Mines and Geology Note 50, *Factors Affecting Landslides in Forested Terrain*.

- ✓ Are there unstable areas located within or adjacent to the proposed THP area?
 - Were unstable areas identified on available geologic, landslide, and watershed maps, aerial photos, or previous THPs in the vicinity of the plan area? [See Page 2 for instructions on how to obtain maps and other information]
 - Were unstable areas observed in the field? Features associated with unstable areas may include:
 - Hillslopes greater than 65%, including inner gorge areas
 - Loose, unconsolidated soils
 - U-shaped swales
 - Irregular topography
 - Scarps
 - Benches
 - Hummocky ground
 - Surface cracks
 - Vegetative indicators
 - Leaning trees
 - Hydrophytes
 - Isolated patches of homogeneous vegetation
 - Disorganized drainage
 - Sag ponds
 - Seeps
 - Diverted watercourse
 - Road cut-bank failure
 - Road or landing fill failure

- ✓ If unstable areas were identified in the THP area, proposed timber operations on, adjacent to, upslope, or downslope of these features may have the potential to affect slope stability through:
 - Displacement of soil,
 - Division or concentration of drainage,
 - Reduction in interception or transpiration, and/or
 - Reduction in root strength.

Examples of timber operations that may produce these effects are:

- Timber cutting
 - Construction and maintenance of:
 - Roads
 - Stream Crossings
 - Skid trails
 - Beds for felling of trees (layouts)
 - Fire breaks
 - Mechanical site preparation
 - Prescribed burning
- ✓ If proposed timber operations have a reasonable potential to affect slope stability, and there is a potential for materials from landslides or unstable areas to affect public safety, water quality, fish habitat or other environmental resources, then a California licensed geologist with experience/expertise in slope stability should be consulted to assess slope stability and assist with designing mitigation measures.

A series of 7.5' quadrangle landslide maps has been developed for use in THP preparation that covers much of the California Coast Range, from Monterey through Del Norte Counties. An index for these maps, California Division of Mines and Geology Special Publication 120, is available from:

*Division of Mines & Geology
Publications and Information Office
801 K Street, MS 14-33
Sacramento, CA 95814-3532
916-445-5716*

Copies of the landslide maps are on file at the Division of Mines and Geology library at the above address and at the Department of Forestry and Fire Protection offices in Fortuna, Willits, Santa Rosa, and Felton.

Many of the maps that are published by the Division of Mines and Geology are available at:

www.consrv.ca.gov/dmg/index.htm