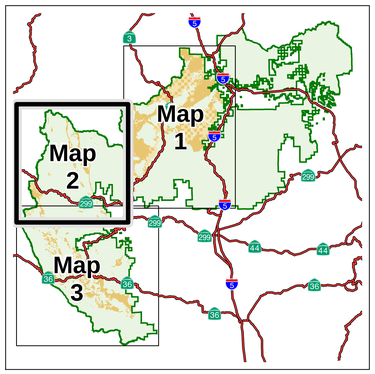
Serpentine Areas Which May Contain Naturally Occurring Asbestos within the Shasta-Trinity National Forest



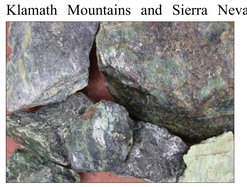
Vicinity Maps
Not to Scale

Serpentine Plants, Landscapes and Rocks

The Klamath-Siskiyou Mountains of northwestern California and adjacent Oregon are a global center of unique plant diversity, largely because of the extensive serpentine landscapes and serpentine-associated plants found here.

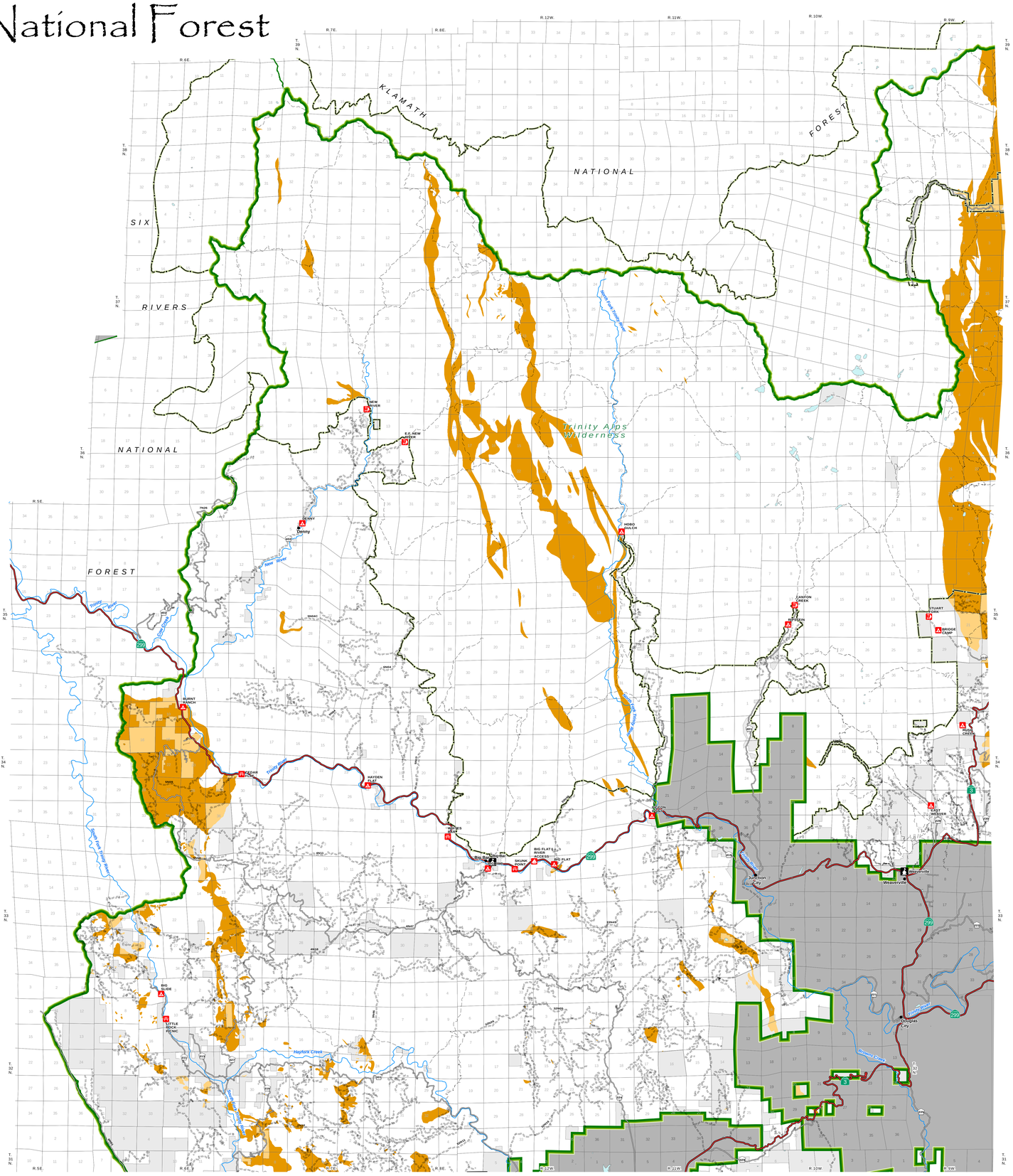
Excellent examples of serpentine soils and the distinctive ecologic communities associated with them have been described in western North America. [1] For instance, in areas where these ultramafic rocks are patchy, such as the Klamath Basin region of northern California, the areas of serpentine soil can be clearly seen as sparsely covered areas bounded by forest on the normal soils.

Serpentine rock is apple-green to black and is often mottled with light and dark colored areas. It has a shiny or wax-like appearance and slightly soapy feel. Serpentine is usually fine-grained and compact but may be granular, platy or fibrous. It's found in central and northern California in the Coast Ranges, Klamath Mountains and Sierra Nevada foothills.[2]



More information on serpentine soils, plants and environments can be found online at:
http://www.fs.fed.us/wildflowers/communities/serpentines/index.shtml

References
1. Alexander, E. B., Coleman, R. G., Keeler-Wolf, T., and Harrison, S., Serpentine Geoecology of Western North America: Geology, Soils, and Vegetation. Oxford University Press, 2007.
2. California Department of Conservation, California Geological Survey, 2002. www.consrv.ca.gov/cgs/information/publications/cgs_notes/note_14/Documents/note_14.pdf



Naturally Occurring Asbestos

In Areas of Serpentine Rock Formations
What Visitors to National Forests Need to Know

General Information

Naturally occurring asbestos is the term applied to the natural geologic occurrence of various types of asbestos found in soils and rock formations. It is commonly found in ultramafic rock formations, including serpentine, and in the soils where these rock types are located. Serpentine, the California State Rock, is found widely throughout the state.

Airborne Asbestos and Health Risks

Asbestos fibers which become airborne through a variety of human activities can lodge in the lungs causing scarring, difficulty breathing and illnesses including cancer. Exposure to asbestos does not mean you will definitely develop health problems. Chances of developing health problems vary based on the type of asbestos, the quantity, duration and frequency of exposures. Knowing how to minimize or eliminate your exposures is the best way to protect lung health.

How to Reduce Health Risks

Health risks can be managed by reducing the creation of dust and the breathing of dust in areas of potential for naturally occurring asbestos, for instance:

- When driving your vehicle or OHV, reduce speed to minimize creating dust, increase following distances between vehicles, close windows when dust is present and use ventilation system to "recirculate" interior air.
- Also when driving, respect pedestrians and roadside workers by slowing to "dustless speeds."
- Avoid handling, digging or other activities which disturb asbestos-containing rocks
- Avoid or minimize the tracking of dust into vehicles
- Using compressed air or vacuums for cleaning your vehicles after your visit will make dust airborne. Use a wet rag to clean the interior of your vehicle instead.
- Learn more about naturally occurring asbestos in areas you live, work or play.

Presence on National Forests

Naturally occurring asbestos is not found in all areas shown to have ultramafic or serpentine rock formations. This map was prepared using the best information available from federal and state agencies including the California Air Resources Board, California Geologic Survey, U.S. Geologic Survey and the USDA Forest Service. Maps will be updated as new information becomes available.

For More Information

More information including maps for other National Forests in California, health facts and how to reduce your health risks and exposure to naturally occurring asbestos can be found at local Forest Service offices or online at:

http://www.fs.fed.us/r5/noa/ or
http://www.fs.fed.us/r5/shastatrinity/home-page/noa/index.shtml

Legend

Note: See Forest Visitor Map for complete Designations, Landmarks and other Recreational Facilities.

Shasta-Trinity National Forest Boundary (SHF)
Adjacent Forest Boundary
Serpentine Areas Within SHF
Serpentine Areas Within SHF on Private Land
Private Land Within SHF
Land Outside Forest Boundaries
Wilderness Boundary
Lake

• Town or Landmark
Ranger Station
Boating Site
Campground
Picnic Site
Trailhead
Major River
Trail

Existing System Roads

Native / Natural Surface
Paved Surface
Major Highway

Prepared (Shasta-Trinity National Forest SO)

Map revised August 3, 2009. E:\Serpentine\Map_2.mxd

Map 2 of 3