

Planning for your MOUNTAIN PROPERTY



So you own real estate in the wildlands! What can you do with it? How will you develop it? Will there be problems with soil, plants, or animals?

You probably gave these questions some thought before buying the land, but now real planning should start. Your reasons for choosing this site will guide your decisions. But the climate and character of the land, and the availability of access roads, utilities, and water will determine how you turn your plans into reality.

Site Development

Local zoning regulations usually limit how a site is developed. Regulations such as grading ordinances may dictate your procedures where residential construction is permitted. Actual on-site conditions, the ability of the soil to support certain types of construction or to act as an effective filter for sewage effluent from septic tanks, may further limit your options.

Be sure you know the development potential of your new property, what you can legally do with it, and its natural limitations.

Cooperative Extension
Division of Agricultural Sciences
UNIVERSITY OF CALIFORNIA

LEAFLET 21360



Soil limitations

Soil is often the most limiting element. The type of wild vegetation and its growth pattern often indicate soil problems. For example, a dense growth of stunted brush sometimes results from shallow, coarse-textured soil that will not support other kinds of vegetation. This vegetation may be a warning that construction problems will be encountered, site disturbance will cause severe erosion, or sewage disposal will be difficult. Physical limitations indicated by vegetation should be verified by soil tests, since other agents can cause similar plant growth patterns.

Tree protection

You will want to protect any trees growing on your land that are healthy and add value to your property. You should locate and protect tree roots against damage from construction activities such as grading and trenching. Pine, fir, and oak may have commercial as well as aesthetic value. All trees make good wildlife habitat.

In any case, careful site development will avoid many problems. Where grading ordinances exist, potential erosion problems usually have been identified, and the needed precautionary measures have been specified. To protect the natural resources on your land, be sure these procedures are followed. If your site does not have development regulations to guide you, it's a good idea to get professional advice on your development plans. You might start with the county or other local offices of:

- University of California Cooperative Extension (Farm and home advisor's office)
- U.S.D.A. Soil Conservation Service (SCS)
- California Department of Forestry (CDF)

For tree management, you also may want to consult a Registered Professional Forester

This publication covers: (1) plant and animal pest problems; (2) soil erosion control; and (3) resources and programs. For any or all of these, the best way to make sure your goals are achieved and your resources protected is to start with a written plan.

Plant and Animal Pests

Brush may create various problems. In a wildfire, dense brush burns with great intensity and can destroy trees and homes. Information on protecting your home against wildfire and landscaping for fire protection can be obtained from Cooperative Extension and the CDF.

Getting Started

Step 1. Write down your main reason for owning the property. Below that, write any other things you'd like to do with the land. Put these goals in order of importance to you.

Step 2. Make a list of natural resources present on the land. Using a few numbers or words, describe their value or the problems they cause. For the present, this list should be a general statement of resources you identified after a leisurely trip around the property. Later, you might want to get some expert help with questions such as "How much are my trees worth?" and "How can I attract wildlife or control unwanted plant and animal pests?"

Step 3. Determine your priorities for use of the natural resources. NOTE: At this point, you might want to get some advice from your local office of UC Cooperative Extension, the SCS, the CDF, or from private consultants.

Step 4. Outline an overall plan. Ask questions to be sure your plan will not create problems.

Step 5. Determine the actions you must take, their costs, and the time needed for their accomplishment. Then, put your plan on a calendar with completion dates marked.

Poison oak, which can cause severe skin rash, is another possible problem in foothill or brushy country. You will certainly want to know if it is present! Yellow starthistle may become a problem on some sites. Cooperative Extension, the SCS, and the CDF can help you identify plants on your land, determine their value, and offer solutions to problems they may present.

Whether you are a new resident or a long-time resident, you may already know about insects and wild animals that cause problems. Insect pests in the foothill counties include mosquitoes, which transmit parasites and diseases, fleas and ticks, and cone-nosed beetles (Japanese kissing bugs). Wildlife, including a wide variety from rattlesnakes to rabbits, and skunks to ground squirrels, sometimes cause damage or transmit disease.

Remember, some uses of the land may actually create plant or animal pest problems, such as weeds and rodents. Planning will help prevent this. UC Cooperative Extension, the California Department of Fish and Game, and your county Agricultural Commissioner can provide assistance with plant and animal pest problems.

Of course, not all animals, plants, and insects are pests. You probably will want to improve the habitat for desirable wildlife on your property. Advice on wildlife habitat improvement is available from Cooperative Extension and the California Department of Fish and Game.

Erosion Control

Soil erosion is a natural process, but it normally occurs at a very slow rate. In many areas of California's wildlands, accelerated erosion is the result of growth in population and is associated with building activities—especially road construction. Soil particles are carried by runoff and deposited on land elsewhere or in streams as sediment. Many problems result, and we all pay in the following ways:

- Decreased property values
- Damage to homes and other construction
- Landslides
- Road damage
- Increased flood hazards
- Damage to domestic water supplies
- Destruction of fish habitat

You can prevent accelerated erosion on your property, protect your investment, and prevent damage to neighboring property—for which you could be liable.

Control methods

Erosion can be prevented or corrected in various ways. The most useful is revegetation with grass. Cooperative Extension and the SCS can recommend grass species to use and provide instructions for planting, fertilizing, and mulching to produce successful stands.

Although a good ground cover of grass provides the best overall erosion protection, other measures, either temporary or permanent, may be needed to help establish the ground cover or to provide additional protection in critical situations.

Some temporary structures are:

1. Dikes to intercept and divert runoff and to protect disturbed sites and exposed slopes.
2. Swales or channels to intercept runoff and protect construction sites where larger flows are expected.
3. Temporary grade stabilization structures, such as chutes, flumes, or pipes to convey runoff down slopes without causing erosion.
4. Temporary sedimentation traps and basins that prevent sediment from leaving construction sites and protect other property and roadways from sediment-laden runoff.

Permanent structures may include:

1. Channels and grassed waterways to convey water away from stabilized and protected areas.
2. Storm drain outlets.
3. Riprap or layers of loose rock or aggregate placed over erodible surfaces.
4. Subsurface drains that carry water away from downspouts on homes to avoid building pad erosion.

5. Rock-filled infiltration trenches to percolate drainage without causing erosion.

Help with design of these structural measures can be obtained from the SCS.

Resources and Programs

Managing a stand of trees requires careful planning. A Registered Professional Forester can suggest the best way to meet your objectives. Forestry advice and assistance also is available from the CDF, the SCS, and in some areas from Cooperative Extension forest advisors.

In any case, get some planning tools, such as maps and aerial photographs. The entire surface of the United States has been surveyed, mapped, or photographed by various agencies. A representation of your property is in their files. A good place to start gathering information is the county office of the U.S.D.A. Agricultural Stabilization and Conservation Service. They can tell you how to order aerial photographs of your property.

Soil survey maps have been prepared for much of California. Check with local offices of Cooperative Extension, the SCS, or the CDF for type and availability of coverage.

Various topographic maps, covering nearly all of California, have been prepared by the U.S. Department of the Interior Geological Survey. For a price list of available maps, write: U.S. Geological Survey, Public Inquiries Office, 345 Middlefield Road, Mail Stop 33, Building 3, Menlo Park, CA 94025.

Maps and photographs, plus on-site inspection, will help you inventory your forest resource—a necessary first step. From the inventory, you can identify trees that can be harvested, or that need thinning, or forest areas that should be planted.

You may want to have your property placed in a Timberland Production Zone (TPZ). This affects the tax structure if the land is used primarily for growing timber. Contact your county planning department for more information.

Harvesting plans

Before timber is harvested, a harvesting plan must be prepared by a Registered Professional Forester. Each plan is reviewed by the CDF. General information on this subject can be provided by the CDF, the SCS, or Cooperative Extension.

Information on timber harvesting and production also is available from the Forest Landowners of California,¹ an organization that represents the interests of woodland owners.

Improvement Cost-Sharing

Forest improvement cost-share programs are available for certain forestry practices. Federal programs are sponsored through the U.S.D.A. Agricultural Stabilization and Conservation Service. There is an office in your county. The CDF administers the state cost-share program and provides technical assistance for all such programs.

Forest improvement programs require a great deal of time and effort. In planning you must include the number and availability of trees to be planted, seasonal availability of needed equipment and labor, and the time you can devote to the project.

Some activities must be done in sequence and follow the calendar, while others involve regular maintenance; however, you must first clear land for planting and control brush for fire protection. Seasonal growing

cycles will influence both of these activities. Tree planting, weed control and stand thinning are other seasonal activities that need to be planned well in advance to ensure availability of materials and labor. Road repair, replacing trees that die, control of certain animal pests, and care of equipment (such as chainsaws) are some of the maintenance activities.

Records and Inspection

Success also depends on maintaining good records. Your investment of time, labor, materials, and money needs to be carefully recorded for tax purposes—and to support your claims under cost-share programs.

As the project develops, inspect it regularly to make sure you have not overlooked any important items. Regular inspection will help you identify needs and develop confidence in your abilities as a natural resource manager.

If members of the Forest Landowners of California are in your area, visit them and discuss your project. They represent reservoirs of experience and will have answers to many of your questions.

A Reminder

Local offices of University of California Cooperative Extension, the Soil Conservation Service, and the California Department of Forestry are available to answer questions as you plan development of your wildland property. They have

many publications, some free, with information about your natural resources and ways to manage and conserve them. Use these sources of information and service to protect and improve your investment.

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The authors thank John Middlebrook, Dobbins, CA, for information on forest resources planning and management.

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This information is provided by Cooperative Extension, an educational agency of the University of California and the United States Department of Agriculture. Support for Cooperative Extension is supplied by federal, state, and county governments. Cooperative Extension provides the people of California with the latest scientific information in agriculture and family consumer sciences. It also sponsors the 4-H Youth program. Cooperative Extension representatives, serving all counties in California, are known as farm, home, or youth advisors. Their offices usually are located in the county seat. They will be happy to provide you with information in their fields of work.

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture, Jerome B. Siebert, Director, Cooperative Extension, University of California.

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