

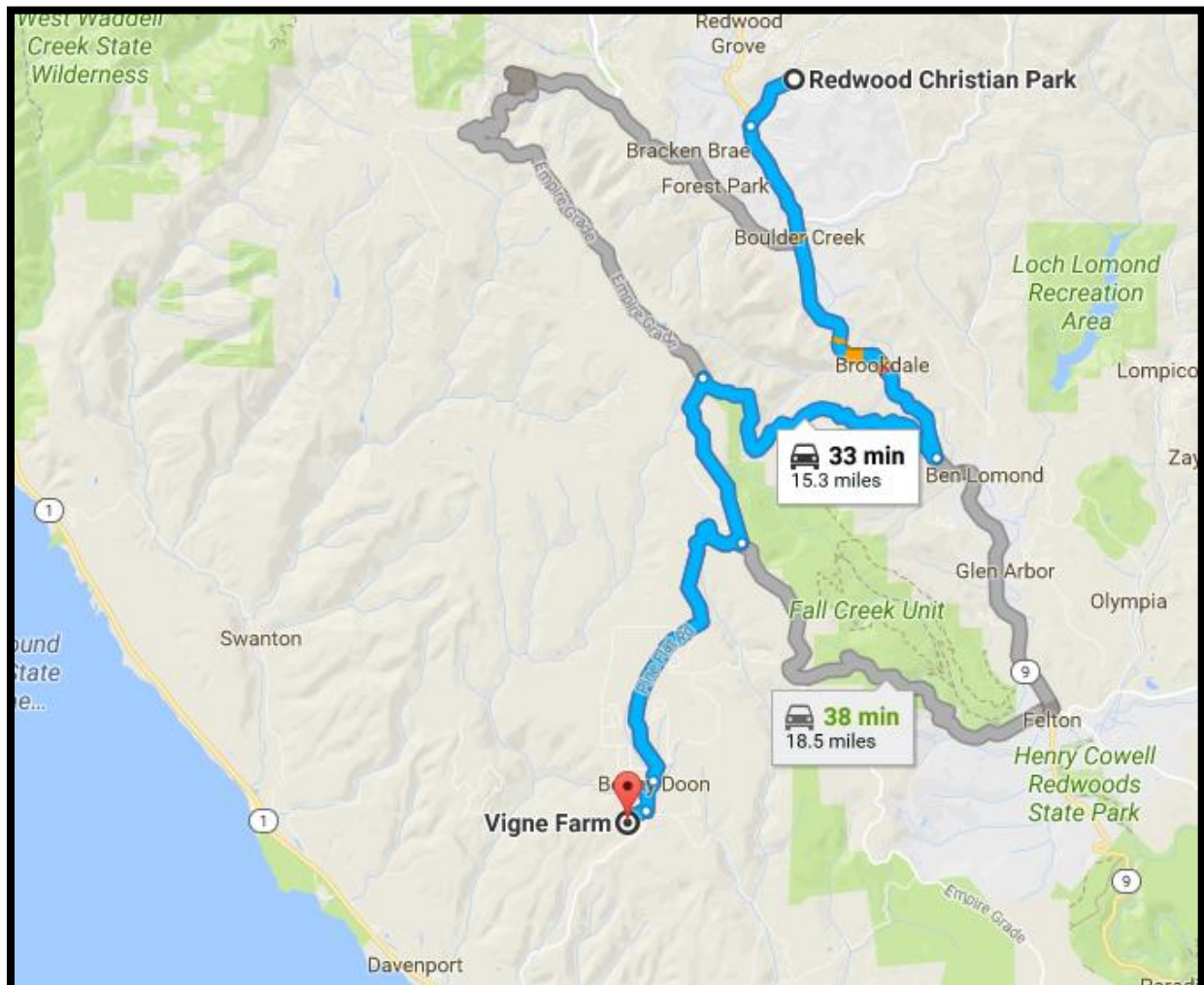
2017 SANTA CRUZ FORESTRY CHALLENGE FOCUS TOPIC QUESTION

Introduction:

The focus topic for 2017 is ***Developing a Silvicultural Prescription for Soper-Wheeler's Bonny Doon Unit***. Students will sample the 100 acre tract, determine the growth since the last harvest 12 years ago, and make a recommendation on the volume that can be sustainably removed in the upcoming harvest.

Location:

The Bonny Doon unit is located on Bonny Doon Road, between the San Lorenzo Valley and the Pacific Ocean town of Davenport. Maps of the property will be provided on a flash drive and driving directions will be handed out on Thursday at lunch.



Background Information:

Logging History of the Santa Cruz Mountains

This area of Santa Cruz County was clear cut between 1884 and 1887. The California gold rush of 1849 created a high demand for lumber in San Francisco, and the Santa Cruz mountains were relatively close by. Oxen were used to drag the heavy logs to small sawmills that were all over the area. The cut boards were transported by ship to San Francisco.

Silviculture

“Silviculture” is the art and science of managing a stand of trees to meet identified management objectives. Silviculture is rooted in “silvics”, which is a study of the relationship between trees and their environment (water, soil, air, and other plants). “Silviculture”, then, is the art of applying the science learned in “silvics”.

There are many types of silviculture, five of which are as follows:

- Clearcut – the removal of all or nearly all of the trees, then planting a new stand. In California, the maximum allowable clearcut is 20 acres.
- Seedtree – like a clearcut, except that a few healthy trees are left to naturally reseed the area.
- Shelterwood – some trees are harvested, but many are left behind to provide shade for the regeneration below. Not used much in CA, as this method favors shade tolerant species.
- Group Selection – removal of groups of trees in areas no larger than 2 ½ acres in size on up to 20% of the acreage of the unit.
- Individual Tree Selection – removal of individual trees in all size and age classes to create/maintain a stand that is multi-storied at the desired stocking level. This method is the only one of these five allowed in Santa Cruz County.

California Forest Practice Rules

California is the most highly regulated place in the world in terms of forest management. The Rules specify a “retention standard” to be left after any type of harvest entry except for clearcut. In Santa Cruz County the rules are even more stringent, as no more than 60 percent of the trees can be removed in one harvest entry, and harvest entries must be at least 10 years apart.

The Registered Professional Forester and Timber Harvest Plans

Minimum qualifications for becoming a Registered Professional Forester are:

- Good moral character and a good reputation for honesty and integrity.
- Seven years of experience in forestry work (three years of which must be having charge of forestry work or be under the supervision of an RPF). An increasing level of responsibility and experience must be demonstrated.
- Pass the comprehensive examination administered by the Professional Foresters Examining Committee (PFEC) with a score of 75% or greater.

A Timber Harvest Plan (THP) is the document that describes harvest operations on private or state land. A THP is submitted to CalFire for review and approval prior to harvesting timber. THP approval is now a minimum 9 to 18-month process before the first tree may be cut. Soper Wheeler will soon initiate the THP process for the Bonny Doon Unit.

The CA Forest Practice Rules require the preparation of THPs to be done by Registered Professional Foresters (RPF) to insure that the plans are drafted by qualified persons.

Soper Wheeler Company

In 1902, both Soper and Wheeler families separately purchased land in northern California. Through mutual contacts, the two families met, and in 1904 James P. Soper Jr. and Nelson P. Wheeler formed the Soper-Wheeler Company, pooling the lands into one company.

The core property was a 14,000 acre tract on the west slope of the Sierra at Strawberry Valley near La Porte, straddling the divide between the Feather River and Yuba River watersheds. The combination of soils and rainfall make it one of the premier west coast sites for growing timber, and the company still owns much of this original property today. The company has also purchased land on the coast, including the 100 acre Bonny Doon unit in Santa Cruz County.

Soper-Wheeler's objective has always been to achieve a balance between growth and harvest while continuously producing high-quality forest products. This is called "sustained yield", and is also known as sustainable forestry.

Fieldtrip:

On Thursday, November 16, you will visit the Bonny Doon Unit to collect data on the stand. Each team will collect data in a 1/20th acre plot. A map of the unit with plot locations and data collections sheets will be handed out at the fieldtrip site.

Resources:

You will be given resources on a flash drive to load onto your team's computer. Use these resources, plus anything you download from the internet, to help you answer the questions to be addressed in your presentation. Additionally, you can use photos you take during the fieldtrip and statements from foresters you work with and interview during Ask a Forester.

Items to be Addressed in Your Presentation:

1. The history of logging in the Santa Cruz Mountains
2. Background information on Soper Wheeler Company and the Bonny Doon tract
3. California Forest Practice Rules and regulations specific to Santa Cruz County
4. How you sampled the Bonny Doon Unit
5. A summary of the data collected
6. Your recommendation for the percentage of trees that should be harvested in the next entry

Final Product:

Your goal is to produce a 15-minute PowerPoint presentation that **describes, in detail, the current stand parameters of the Bonny Doon Unit and your silvicultural prescription for the stand.** You are encouraged to use photos and information collected on the fieldtrip, interviews with resource professionals during the Challenge, and the maps, tables, and information in the resources provided. Additionally, use the judges' score sheet as a checklist, to make sure you cover the items on which you will be scored. Remember, there is no "right" answer! Your ideas will be taken into account when a harvest plan is written for the Unit.