



Social Studies

Behind the Redwood Curtain

CA SOCIAL SCIENCE CONTENT STANDARDS
PRINCIPLES OF AMERICAN DEMOCRACY AND
ECONOMICS, GRADE 12: 12.7 Students analyze and
compare the powers and procedures of the national, state,
tribal, and local governments. 6. Students compare the
processes of lawmaking at each of the three levels of govern-
ment, including the role of lobbying and the media.

Overview

Students will do a role play to examine the current system of watershed management in Northern California, exploring whom it benefits and whom it harms. They will then design an alternative means of management that better addresses the interconnectedness of the water and forests. **Reference Terrain Article “Sediment of Corruption,” pg. 19.**

Background

A *watershed* is an area wherein all rivers, streams, and subsurface water drains to the same place. Various watershed interests include:

Conservation: A watershed contains both aquatic (water) and terrestrial (land) components. As such, it is part of a larger natural system involving all terrestrial and aquatic flora and fauna (conifer, hardwoods, algae, salmon), along with groundwater and surface water, geology and hydrogeology.

Resource extraction: Watersheds contain extractable resources for humans such as timber, drinking water, gravel, fisheries.

Recreation: Watersheds offer opportunities for hiking, camping, fishing, hunting, sightseeing, boating and swimming.

In Northern California, the timber industry (Maxxam, LP, Sierra Pacific) is very powerful politically and economically, and its interests hold sway over the tourism (recreation) industry, the fisheries industry, and conservation interests. In “Sediment of Corruption,” the author reports that Maxxam logging practices, among other things, have led to increased flooding and streams loaded with sediment, which can prevent salmonids from reproducing.

Activity A: Reality Reversal

1. Cut out, fold, and place in a hat the characters listed on page 12. It is preferable to have more than one of each character, because individuals within any group may differ in their perspective. Each student will draw a character from the hat.
2. One side of the classroom will be designated “Advantage.” The other side of the room will be designated “Disadvantage.” Students will position themselves in the room according to whether they believe

the current situation (timber interests dominant) is to their character’s advantage or disadvantage. Some students may think the situation holds a mixture of benefits and drawbacks for their character. They will stand at a point between the poles that reflects that mixture.

3. Students must state which character they drew from the hat and explain why they chose to stand where they did.
4. Repeat steps 2 and 3, using Hypothetical Situations A, B and C described below.
5. Have students introduce new characters into the mix, then repeat the exercise.

Hypothetical Situation A: Suppose the fisheries industry were more powerful politically or economically than the timber industry.

Hypothetical Situation B: Suppose (as seems to be coming true) that the tourism industry grew to be more powerful politically and/or economically than the timber industry.

Hypothetical Situation C: Suppose that conservation interests held more political power than resource extraction interests (timber, fisheries, etc.) and recreation interests, which include campers and off-road drivers.

Questions to research and ponder

1. How might it have come to pass that the interests of the timber industry hold sway over the other interests of the watersheds in Northern California? What priorities are reflected by the current system? What role do you think political donations play?
2. Our taxes fund the California Forestry Department. Their mission includes “to protect and enhance forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens.” Yet, according to the article, the CDF considers timber companies to be their clients. Why might this be so?



Denizens of the Watershed:

<p>Commercial Fisherman: Wants bountiful harvest of fish. Freshwater fish require clean, unimpeded streams and rivers. Salmon and steelhead require cold, clear water with gravel-bottoms (i.e. no silt) for spawning. Excessive fishing (esp. ocean fishing) could collapse the fisheries. Opposes landscape changes that endanger fish stocks.</p>
<p>Recreational Fisherman: Wants bountiful harvest of fish (salmon, steelhead, trout, crabs, etc.). Freshwater fish require clean, unimpeded streams and rivers. Fish such as salmon and steelhead require cold, clear water with gravel-bottoms (i.e. no silt) for spawning. Opposes changes to the landscape that might endanger fish stocks.</p>
<p>Logger: Wants bountiful supply of high-quality timber and job security. Old-growth timber fetches the highest price. Believes environmental restrictions that slow down timber harvests could threaten his job security.</p>
<p>Town Mayor: Wants economic and social well-being for his town and community. Plenty of high-paying jobs attract other businesses to his community. A healthy tourist economy depends on the natural beauty of the area.</p>
<p>Timber Executive: Responsible to the shareholders and Board of Directors, who want to maximize short-term profits as well as ensure a financial future for the corporation.</p>
<p>Backpacker/Dayhiker: Values unspoiled beauty of wilderness, clear, flowing streams, plenty of fish and other wildlife. Needs access trails into wilderness. Sometimes has conflicts with mountain bikers and off-road enthusiasts.</p>
<p>Mountain Biker: Values unspoiled beauty of wilderness, yet desires both narrow bike trails and wider fire roads. Sometimes has conflicts with backpackers and hikers.</p>
<p>Forest Ranger: Manages national forests for multiple uses (including recreation) and the sustained yield of resources such as water, forage, wildlife and wood. Often trained in timber management. Forest Service's latest priority is facilitating recreation (e.g. keeping trails clear).</p>
<p>Professional Photographer: Freelancer sells photos to newspapers and magazines. Exhibits and sells works in several galleries.</p>
<p>Native American: For millennia, Wiyot, Yurok, Karuk and others have considered the region their traditional territory. They still make pilgrimages to sacred sites. Those who live in the area often rely on forests for medicinal plants, ceremonial plants, and food.</p>
<p>Local Apple Grower: Needs stable, fertile soil, drinking water in well, and aerated soil, because fruit trees' roots are mainly in the first three feet of ground. Flooding rots roots.</p>
<p>Local Teenager: Requires money from job or from parents, who hold steady jobs. Requires decent school and enough other teens living in the area to have friends and romantic interests. Needs clean drinking water.</p>
<p>Northern Spotted Owl: Lives in old-growth forest. Needs prey base of mice, squirrels, voles. Needs nesting space and distance from barred owls, a more aggressive species that will prey on spotted owls. Easily disturbed.</p>
<p>Old-growth redwood: Need trees around it to cross-pollinate and to protect from unaccustomed wind stress. Can survive flooding. Needs fog and moist atmosphere. Roads compress roots, destabilize, endanger trees' food and water supply.</p>
<p>New-growth Redwood: Grows in a community. Needs other trees to cross-pollinate and to stabilize sloped land. Grows from "nurse logs," decomposing fallen trees. Needs the nutrients of dead plants or animals. Needs sunlight.</p>
<p>Steelhead: Requires silt-free, cold, clear waters to spawn. Needs unimpeded streams to migrate to ocean and to return to spawn.</p>
<p>Scientist: Could work for an environmental organization, a regulatory agency, or a corporation.</p>
<p>Local Assembly Member: Wants to stay in office. Needs campaign contributions. Advocates for those who voted him/her into office.</p>
<p>Local Barkeep: Third generation citizen of town. Father and grandfather worked at sawmill. Bar patrons include loggers, mill workers, fishermen and townspeople whose homes have been jeopardized by mudslides and flooding.</p>



Activity B: Design A Regulatory System

Investigate how the law and regulatory agencies deal with the watershed. Because of the current laws, each regulatory agency deals with only part of the watershed: CDF deals only with timber extraction, RWQCB deals only with water, DFG deals with game species. This fractured approach neglects the interconnectedness of all parts of the watershed ecosystem. For example, salmon, a **game** fish, need clear, unimpeded **rivers** to facilitate their migration to the ocean and back. They also depend on **trees** to prevent siltation in their spawning pools.

Exercise:

Break the class into groups of 3-5 students. Have each group design a regulatory system that would more effectively deal with the complexities and independencies of a watershed. Question to consider: Is it possible to design a regulatory arrangement that gives all watershed interests an equal amount of power?

Agencies that oversee aspects of the watershed:

CDF (California Department of Forestry and Fire Protection): Mission is to oversee logging operations and to approve Timber Harvest Plans (THPs) in accordance with the law and public policy, and to manage statewide firefighting efforts. Link: www.ca.fire.gov

NCRWQCB (North Coast Regional Water Quality Control Board): Mission is to preserve and enhance the quality of California's water resources and ensure their proper allocation and efficient use for the benefit of present and future generations.

Link: www.swrcb.ca.gov/rwqcb1

DFG (California Department of Fish and Game): Mission is to manage fish and wildlife species and habitats within the state for ecological and recreational value.

Link: www.dfg.ca.gov

USFWS (U.S. Department of Fish and Wildlife Service): Mission is to work with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

Link: www.fws.gov

EPA (Environmental Protection Agency): Mission is to protect human health and to safeguard the natural environment.

Link: www.epa.gov

Humboldt County Agricultural Commissioner: Responsible for approving all local pesticide and herbicide applications within the county.



"Ravens in the Hemlock," © Andrea Rich

This clip, taken from Humboldt County's newspaper, *The Times Standard*, illustrates how the various agencies overlap, and the legal uncertainty that follows.

"The question now is whether the Regional Water Quality Control Board should hold special hearings on the Pacific Lumber logging activities, and possibly issue cease-and-desist orders if they are found to be polluting the streams. The board does this in other water pollution cases, including the recently-settled controversy over stream pollution from the Louisiana-Pacific particle board plant in Arcata.

Timber harvests, however, come under the jurisdiction of the California Department of Forestry. The water quality board, Department of Fish and Game and other agencies may comment on harvest plans, but they are not specialists on forestry issues.

The California Board of Forestry last year considered, and declined to make, changes in the present forest practice rules sought by the Freshwater and Elk River landowners, among others. There is a very real legal question as to whether one state agency could prohibit an activity that has been approved by another agency, if the latter has normal jurisdiction over that activity.

Another gray area of the law is whether runoff from a logging operation can be considered "point source pollution," such as a discharge pipe from a factory. The Environmental Protection Information Center has announced its intention to file suit in federal court on that issue."