### References

Krog, David R., Shashanka Bhide, C. Arden Pope, III, and Earl O. Heady. 1983. Effects of livestock enterprises on the economies of soil and water conservation practices in Iowa. CARD Report 112. Center for Agricultural and Rural Development, Iowa State University, Ames, Iowa.

Nelson, Robert H. 1982. The public lands: Current issues in natural resource policy, ed. by Paul R. Portney. Resources for the Future, Washington, D.C.

Pope, C. Arden, III. 1985. Agricultural productive and consumptive use components of rural land values in Texas. American Journal of Agricultural Economics 67:81-86.

Pope, C. Arden, III, and H.L. Goodwin. 1984. Socio-economic motivations for purchasing rural land in Texas. Journal of the American Society of Farm Managers and Rural Appraisers 48:37-40.

Pope, C. Arden, III, and Fred J. Wagstaff. 1987. An economic evaluation of the Oak Creek Range Management Area. General Technical Report INT-224. U.S. Department of Agriculture, Forest Service, Intermountain Research Station, Ogden, Utah

Robison, Laren R. 1983. Meeting the challenge of change in resource management. Rangelands 5:16-18.

Witts, David A. 1981. Theft. University of LaVerne, LaVerne, California.

# Conflicts in California Range Management

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As California's Secretary for Resources, I am the chief administrator of the Resources Agency, which includes the Department of Fish and Game, Conservation, Parks and Recreation, Water Resources, Forestry, Boating and Waterways, and the California Conservation Corps. Range management is not a topic that fits neatly into any of the 7 departments or 20 boards and commissions that make up the Resources Agency. But I am comfortable talking about conflicts in range management because there are few aspects of resource management that are without conflict. And many of these resource management conflicts can be found near Arcata, in California's north coast region.

The ocean waters and coastal streams and rivers of the north coast support one of the nation's outstanding salmon fisheries. Major conflicts exist between sport anglers, commercial fishermen, and native Indians who enjoy special fishing rights under government treaties. To the north, just below the Oregon border, the Smith River—an outstanding salmon and steelhead stream and a part of both the federal and state Wild and Scenic River Systems—is the site of conflict between anglers and environmentalists and mining interests who want to develop a major cobalt deposit in the river's upper drainage.

The creation of the Redwood National Park brought timber interests, environmentalists, local residents, and economic interests into one of the most intense resource conflicts the state has seen in many years. Timber harvesting on private lands of the North Coast, as elsewhere in California, is conducted under the strictest set of environmental regulations of any state in the country. Although these regulations have been in effect for a number of years, they are viewed differently by timber interests—which contend they are too strict

and increase their costs unnecessarily—and others, including anglers and environmentalists, who contend they are not strict enough.

When Mark Twain visited California in the days of the Gold Rush, he said, "In the West, whiskey is for drinkin' and water is for fightin' about." I can assure you that things haven't changed much—Californians are still fighting about water. The chief problem is that nearly all of California's water is in the northern third of the state, and two-thirds of our population is in the southern third of the state. Water interests and politicians from Southern California view North Coast rivers as logical sources of water to meet future population growth and farming needs, while people from the San Francisco Say area northward fear that exports of additional water will be harmful to northern California fisheries, wetlands, and water resources.

I am no stranger to conflicts when it comes to resource management, but before talking about range management I want to define my subject. The U.S. Forest Service has its own definitions for "range," "forest land," and "rangeland" (USDA-FS, 1979). The Bureau of Land Management has definitions for "native grazing land," "rangeland," "grazeable woodland," and "native pasture" as well as ordinary "range" (USDA-SCS, 1976). The State Forest and Rangeland Resources Assessment and Policy Act of 1977 defines rangeland as land on which the existing vegetation, whether growing naturally or through management, is suitable for grazing or browsing domestic livestock for at least a portion of the year. That is the definition I will use.

#### Rangelands in California

California rangeland varies both in the amount and timing of forage production. Lush meadows in the Sierra Nevada may produce well over one AUM on each acre during the summer, while as many as 20 acres of sparsely vegetated San Bernardino County desert lands may be required to produce a single AUM of spring forage. The majority of forage consumed by livestock in California is produced on the closely associated hardwood and annual grassland ranges, and peak productivity is in late winter and spring. Of the approximately 14 million AUMs consumed by livestock on California range in 1985, almost 11 million were produced on hardwood and annual grassland ranges. About 95 percent of hardwood and annual grassland AUMs come from privately owned rangelands (CDF-FRRAP). The acreage of private rangelands reported grazed in California has steadily declined over the last 15 years, from 26 million acres in 1972 (USDA-FS), to 17.8 million acres in 1985 (California County Agricultural Commissioners, 1985).

Today the Forest Service administers grazing on 12.9 million acres, and the BLM on 9.3 million acres in California (USDI-BLM, 1985; USDA-FS 1987). The number of AUMs sold for cattle grazing on Forest Service and BLM lands has remained constant or increased over the last 10 years. The BLM sells nearly 400,000 and the Forest Service more than 500,000 AUMs annually for cattle, sheep, and goats-an average of 6 percent of the forage consumed by livestock on California Rangelands (USDI-BLM, 1985; USDA-FS, 1985). Other public agencies, including the Department of Defense, state parks, the City of Los Angeles Department of Water and Power, and the California Department of Fish and Game lease almost another 300,000 AUM's making the total public forage resource average about 9 percent of the rangeland forage consumed by livestock in the state (CDF-FRRAP; Bartlett et al. 1983).

California's rangelands help support a cattle industry, with a value of just over 1 billion dollars in 1985, ranked eighth in the nation and second among California agricultural commodies in 1985 (Calif. Dept. Finance, 1986). Based on the annual production of California range and farm cattle, the industry produced beef worth half a billion dollars wholesale in 1985-and more than 60 percent of the feed consumed was forage grazed from rangelands. California's sheep and wool production had a commodity value of 58 million dollars in 1985, 10 percent of the national total and ranking second in the nation (Calif. Dept. Finance, 1986). About half of the feed consumed by these animals came from rangeland, with most of the remainder coming from crop residues and improved pasture. Red meat and wool produced from rangeland forage alone was estimated to be worth 318 million dollars wholesale in 1985, ranking 13th among all California agricultural commodities.

Recreation is also an important use of the state's rangelands. Even water sports are important because most California reservoirs are located in rangeland areas. Wood, especially firewood, is a significant resource on some rangelands. About 160,000 cords per year—about 10 percent of the total consumption—are produced by hardwood harvest (Doak and Stewart, 1986).

## What do people want from California rangelands?

Livestock producers see rangeland as their source of livelihood. Often, it is valued as the foundation of a way of life. Livestock producers value the pleasure of living in rural surroundings, cherish their right to manage their land as they think best, and recognize that the bottom line is making a profit. Many inherited their land from their parents, and see ranching as a family tradition, one that they grew up with and hope to pass on to their children.

Wilderness advocates seek places where they can experience lands where nature is in control rather than people. In general, they want rangelands to be as close to pristine as possible, and see them as the territory of wildlife and native plants, rather than of people or livestock.

Many camping enthusiasts want more development and improvement of campgrounds, and increased public access to remote rangeland areas. For them, rangelands are a place to relax and get away from it all.

Anglers, for the most part, would like to see plentiful fish and the management of riparian areas for improved fish habitat. Timber managers want to manage forest rangelands for timber production. They often see other uses as secondary to the objective. They would like to be as unrestricted as possible. Forest lands are a source of employment for forest workers and provide the livelihood of many forest landowners.

Off-road vehicle users want more lands accessible for ORV use, while environmentalists see rangelands as a valuable source of open space, wildlife habitat, and recreation opportunities. To them, maintaining healthy rangeland ecosystems is an important part of maintaining a desirable quality of life.

Some developers view rangelands as worthy investments, their ultimate objective being development for residential or agricultural purposes.

These different uses and values often are the source of conflicts. Livestock use of riparian areas may degrade stream water quality, and changes in stream environments may reduce fish habitat quality. Campers, environmentalists, and wilderness enthusiasts may believe that livestock detract from their recreational experiences.

In some places, wildlife habitat may be altered or forage reduced by livestock. Mining also can have effects on steams and on rangeland ecosystems that are considered undesirable by other users, including livestock producers.

Recreationists may trespass on private rangelands, may damage roads and forget to close gates, or harass stock. Hunters have been known to shoot a cow or two. Different kinds of recreation uses can also generate conflicts. Some campers want highly developed camping facilities and good roads that maximize their access to remote areas. Backcountry campers and hikers may feel that developed facilities and roads detract from their experiences. Non-ORV users often find ORVs offensive. Livestock producers may believe that ORV's are used to harass stock. Noise from ORVs may detract from the experience of campers and hikers; environmentalists deplore damage to vegetation and soils.

Some anglers may want more stream stocking, and "put and take" fishing. Other may want to fish for native stock and will support catch and release angling. Ranchers and some hunters may want to see predators controlled, while other users of rangelands—including people who have never seen a wild predator—may feel that plentiful coyotes or mountain lions are important.

These kind of conflicts are more often publicized with

respect to public lands, where the multiple-use concept means that public land managers have the difficult task of considering all these uses and trying to resolve the myriad of conflicts over on public lands. Issues on private lands may be different. Uses are generally arbitrated by the landowner, and determined by the landowner's objectives. Yet conflicts still arise.

California's booming population has resulted in many changes in the state's demography. Conflicts on private rangeland are often the result of expanding residential and urban development. County planners, faced with a choice of directing development to agricultural lands, timberlands, or rangelands, often chose rangelands. Even if a rancher does not sell property for development, proximity to development often means costly increases in vandalism, rustling, and stock losses to roaming domestic dogs. Too often, the only way to break even financially is to sell out. In some cases, zoning and open space regulations may restrict the landowner's options for selling or subdividing property.

Conflicts about management practices of private landowners are important in California, as our expanding urban population looks increasingly to open lands for recreation and a chance to escape the shoulder-to-shoulder lifestyle of modern urban life.

#### What's ahead?

More conflicts, not fewer. California's population was 10.5 million in 1950, 23.6 million in 1980, 26.1 million in 1986, and it continues to grow (Calif. Dept. Finance, 1986). But just as important as the changing numbers are the changing characteristics of our population. In 1970, non-white ethnic groups made up 26 percent of California's population; in 1980 they made up 33 percent of the total. By 2010, it is projected that more than half of California's population will be non-white (Calif. Dept. Finance, 1986). These ethnic groups have different traditions and cultures than the majority of our people have had in past years. And they will have different views about committing public funds to natural resource management, and about the role of parks and other open space lands, public and private, for recreation.

Another factor affecting rangeland management and generating its own set of conflicts is conversion of rangeland to other uses. Between 1950 and 1980, 282,000 acres of grassland, and 136,000 acres of hardwood woodland were converted to urban use. Conversion for agricultural use included 2.7 million acres of grassland and 481,000 acres of hardwood (CDF-FRRAP).

How can private landowners and public managers cope with changing public attitudes and new economic climates? One way may be with specialized resources management programs such as California's Integrated Hardwood Management Program. California's hardwood rangelands are an important source of livestock forage in the state. They are also the habitat of a wide variety of wildlife species, as well as many species of oak, highly valued for their natural beauty

and as firewood. Some of these oak species do not appear to be regenerating at a rate adequate to assure their continued abundance on hardwood rangelands.

This program provides a framework for agencies, researchers, and private landowners to work together to resolve a complex issue involving conflicting interests in and use of hardwood rangelands.

Ultimately, however, decisions about the future of rangeland will be made in the political arena—not by university scientists or land managers or owners. It's important that we remember—and remind others—that our prosperity and quality of life depend on the productivity of our natural resources. And of all our resources, land is the most basic. Food comes from the land. Fiber comes from the land. Wood comes from the land. Even the rare metals that scientists and engineers will use to build the supercollider come from the land.

We need to be concerned that those future decisions will be made by taxpayers and voters—may of whom believe that milk comes from a waxed-paper carton, water from a faucet, and that beef somehow grows—neatly sliced—in vacuum packed plastic packages. We already know how to manage our resources. But if we are to have the freedom to use that knowledge, we need to create a new base of knowledge and understanding among our political leaders—and the people who elect them—of the true value of rangelands and other renewable natural resources. Taking into consideration the changing nature of our population, that will be no small challenge. Unless we are successful, though, conflicts will continue to be an important part of range management.

Thank you for this opportunity to share some of my ideas with you.

#### Literature Cited

Bartlett, T., J.R. McKean, and W. Winger. 1983. Grazing lease and fee arrangements of western governments and agencies, for: study of western state, local governments, and other federal agencies grazing lease arrangements and user charges. Final Report to USDA Forest Service June 29.

California Department of Forestry and Fire Protection—Forest and Rangelands Resources Assessment Program. 1987. Unpublished data.

California Department of Finance. 1986. California Statistical Abstract. California County Agricultural Commissioners. 1985. Annual reports. Cox, Terrance. 1987. pers. comm.

Doak, Sam C., and Bill Stewart. 1986. A Model of Economic Forces Affecting California's Hardwood Resource: Monitoring and Policy Implications. Report to CDF-FRRAP.

United States Department of Agriculture-Soll Conservation Service. 1976. National Range Handbook.

United States Department of Agriculture—Forest Service. 1985.
Grazing Statistical Summary (annual report).

United States Department of Agriculture-Forest Service. 1979. An Assessment of the Forest and Range Land Situation in the United States—Review Draft.

United States Department of Agriculture-Forest Service. 1972. The Nation's Range Resources: A Forest-Range Environmental Study. Forest Resources Report No. 19.

United States Department of the Interior—Bureau of Land Management, 1985. Public Lands Statistics (annual report).