

Maintaining Livestock Grazing While Facing Water Quality Regulations, January 2012

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Livestock grazing has sustained societies for millennia and has a critical role in the proper functioning of many ecosystems. Despite these important contributions, livestock grazing operations continually face many threats such as unpredictable livestock markets, shrinking forage resources, negative perceptions of grazing impacts and government regulations. The new conditional waiver for grazing lands adopted by the San Francisco Bay Regional Water Quality Control Board is perceived by many in the Sonoma Creek and Napa River watersheds as the latest threat from government that will burden livestock operators with additional workload and possibly scare landowners into not renewing grazing leases.

While the regulations may be intimidating, irritating and raise liability concerns, there are many reasons to maintain grazing, including a growing body of scientific research identifying the ecological benefits of appropriate grazing practices and the negative ecological effects of removing grazing. Below are a few benefits livestock grazing can provide.

Fire Fuel Reduction

In many landscapes livestock grazing is the most practical and cost effective methods of reducing vegetation that would otherwise increase the risk and intensity of wildland fires. Alternatives to grazing include mowing, herbicide applications and control burns, but these methods are difficult and costly to apply across large areas that are typical of our rangeland landscapes.

Invasive Weed Management

California's rangelands are dominated by annual grasses and forbs that have been introduced over the past 250 years, beginning with the Spanish missionaries. Many of these species introductions were intentional to provide forage for livestock, but many were accidental introductions of species that have become noxious and invasive weeds such as yellow starthistle, medusahead and barb goatgrass.

Improved Wildlife Habitat

Well managed rangelands that are grazed to appropriate residue levels have been shown to improve habitat for many songbirds, the endangered Tiger Salamander and raptor birds. Unmanaged rangelands results in excess thatch that is poor nesting habitat, impedes Tiger Salamander migration and hides rodents from hunting raptors.

Water Quality

Studies have shown that unmanaged rangelands can be a greater source of nutrients in runoff than grazed rangelands as old vegetation degrades into water soluble particles that flow downstream. Appropriate applied grazing and animal management practices can be used to enhance water quality.

Food Production

Although often underappreciated as a source of food for human consumption, California's rangelands are an important part of the beef and sheep production industries. Beef and sheep are ruminants and have digestive systems that allow them to utilize the high fiber forage from our rangelands. This is a valuable resource that would go un-utilized if not for livestock grazing.

Supports Local Economies

Beef cattle and sheep production accounted for \$2.16 billion of farm gate value in 2010 which ranks fifth in all agricultural commodities grown in California. Although livestock value may be low in Napa and Sonoma counties relative to other high value crops, it does support the agriculture infrastructure, it generates jobs and livelihoods in rural regions and it helps maintain open space by keeping uncultivated and undeveloped land productive.

Bottom Line

The bottom line is that the conditional waiver does not change the liability to landowners and livestock producers in any way that is different than before. The Regional Board has the same authorities to regulate water quality, but the conditional waiver is a relatively new mechanism to ensure water quality improvement practices are being implemented. Choosing not to graze rangelands may prove a greater liability due to increased risk and severity of wildland fires, weed invasion, reduced wildlife habitat and the lack of regular land management activities.

The conditional waiver will require some attention and time, especially during the first year when the ranch water quality plan must be created. Livestock producers and landowners may find some comfort knowing that the adopted waiver program was designed to minimize the burden of reporting while providing the necessary information to the Regional Board and this is the same waiver program that has been accepted and implemented by ranchers in the Tomales Bay watershed since 2008.

Additional Contacts & Resources

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Rangeland Ecosystems Services
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California Rangeland Conservation Coalition
<http://www.carangeland.org/>

San Francisco Bay Regional Water Quality Control Board, Agriculture Programs
http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/agriculture/index.shtml