

## What is a riparian area?

A riparian area is the transition zone between an aquatic environment such as a stream or river, and the uplands. Plants vary from site to site but generally have deep, strong roots. Healthy riparian areas have a diversity of plant species and age classes with little bare ground.



## ...and why is it valuable?

Properly managed riparian areas can support a high quantity and quality of forage. A ranch plan that contains management tools that maintain riparian health and protect water quality can benefit a livestock operator through improved feed intake and weight gain.

## Adaptive Management

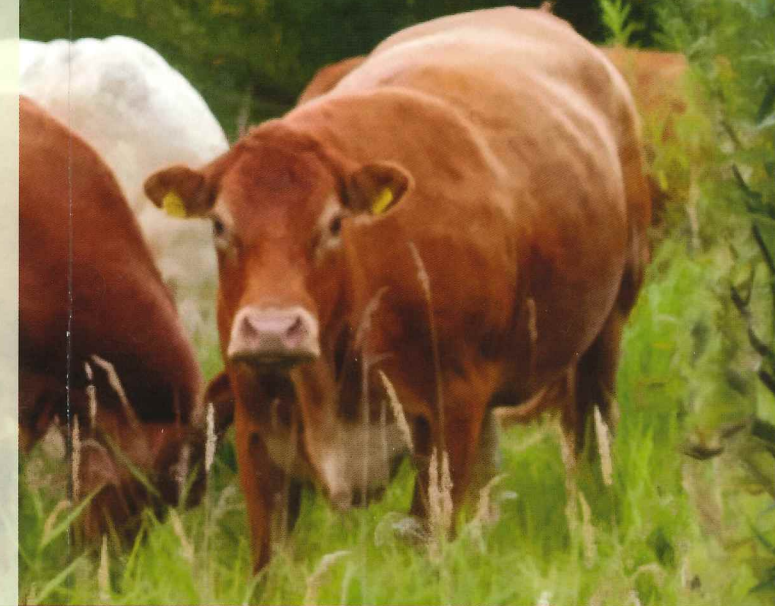
Just as there are no quick fixes, there is no particular tool or technique that will work in all riparian grazing scenarios. A livestock operator must be committed to developing a strategy that meets the needs of the resource as well as the business, and as with any natural system, change takes time. Clear objectives and realistic expectations are a good place to start, and there are technical and financial resources available to help you develop and achieve your riparian grazing goals.

## Additional Resources

For more in-depth information on riparian areas, management tools and techniques, and case examples from across the west, download or request a copy of *Grazing Management Processes and Strategies for Riparian-Wetland Areas (TR 1737-20)*, a technical reference developed by the Bureau of Land Management. [https://www.blm.gov/or/programs/nrst/files/final\\_tr\\_1737-20.pdf](https://www.blm.gov/or/programs/nrst/files/final_tr_1737-20.pdf)

The Oregon State University Extension, the Farm Service Agency, and the Natural Resources Conservation Service may be able to provide local support for livestock producers. Additionally, nonprofits such as Klamath Watershed Partnership, Trout Unlimited, and Klamath Soil and Water Conservation District, as well as entities such as Partners for Fish and Wildlife, may be able to provide technical and financial support to operators looking to implement riparian grazing management practices.

# RIPARIAN GRAZING MANAGEMENT



**Maintaining riparian  
health as a sustainable  
grazing resource**

## Riparian Areas in the Ranch Plan

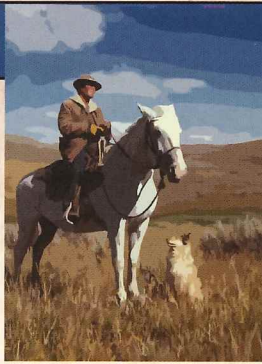
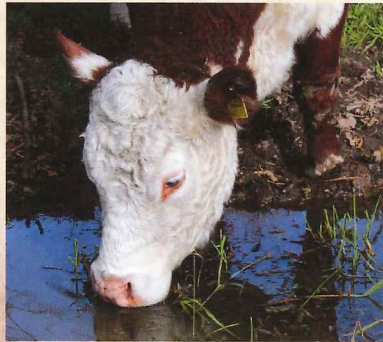
Riparian areas may constitute a fraction of ranch acreage, but if well-managed, can provide higher forage values than upland pastures. Management decisions for riparian areas should be balanced with the other pastures to ensure that the timing, duration, and frequency of grazing are appropriate and allow sufficient time for the system to recover. Riparian management also requires special consideration of vulnerable periods such as when banks are soft in the spring, or when trees and shrubs may be damaged by browsing in the fall. Ranch plans that include riparian areas require active and adaptive management to maximize forage production and protect the water resource.

### Forage pressure

In situations of continuous, season-long grazing, livestock will selectively graze and often loiter in riparian areas. If cattle are allowed open access to all areas, uplands may be underutilized while preferred riparian vegetation may be overgrazed, which in time can lead to decreased plant vigor and a shift in vegetation composition.

### Water resources

Livestock watering by direct access to a waterbody may create problems for animal health, safety, and productivity. Mud, steep banks, and ice present direct threats to animal safety, while pathogens and contamination from defecation and trampling of streambanks can pose risks to the herd as well as downstream users. Poor quality water is less palatable to cattle and has been shown to negatively impact feeding and weight gain.



The following are a few of the techniques that may be used as part of a riparian grazing management plan; however, it should be emphasized that an involved and committed operator is ultimately more important for the long-term maintenance of riparian health and productivity than the particular tools that are used.

### Deferred rotational grazing

Subdividing the ranch into smaller paddocks can improve animal distribution and facilitate more even use of the pasture. It provides flexibility to manage each paddock to allow plant growth before grazing and/or recovery after grazing. Altering the time of use and rotations each year can further promote vigorous plants with large root systems that are better able to withstand drought and other disturbances.

### Fencing

Permanent fencing is a long-term management tool that allows livestock managers to control the use of riparian and other paddocks within their operation. Water gaps or temporary fencing may be incorporated to facilitate seasonal or rotational needs, or to distribute animals. Techniques such as low-stress herding and alteration of turnout locations may be used in conjunction with fencing to focus use away from riparian areas.

## Tools for Management

### Remote water sources & supplements

Off-stream watering systems can provide stable footing and better water quality, and may be an effective and adaptable tool to reduce or eliminate stream use. The water source (surface vs. well) and power source (solar, electricity, manual, etc.) will depend on the site, but options such as solar tanks and animal-driven nose pumps are flexible systems that may integrate well into large systems or diversified rotation plans.



Photo courtesy of USDA NRCS



Supplement blocks placed at least 0.25 to 0.5 miles from a stream can be used in addition to off-stream water to further distribute livestock and encourage consumption of upland forage.

### Hardened stream crossings & access points

In cases where cattle need to cross a stream, or where off-channel watering does not align with the management plan, crossings or access points may be reinforced to provide safe, sure footing, decrease bank trampling, and reduce time in the water, which will minimize injury and contamination opportunities. Cattle will choose to cross or water at these areas, even if they are further away than previous access areas.



Photo courtesy of USDA NRCS

