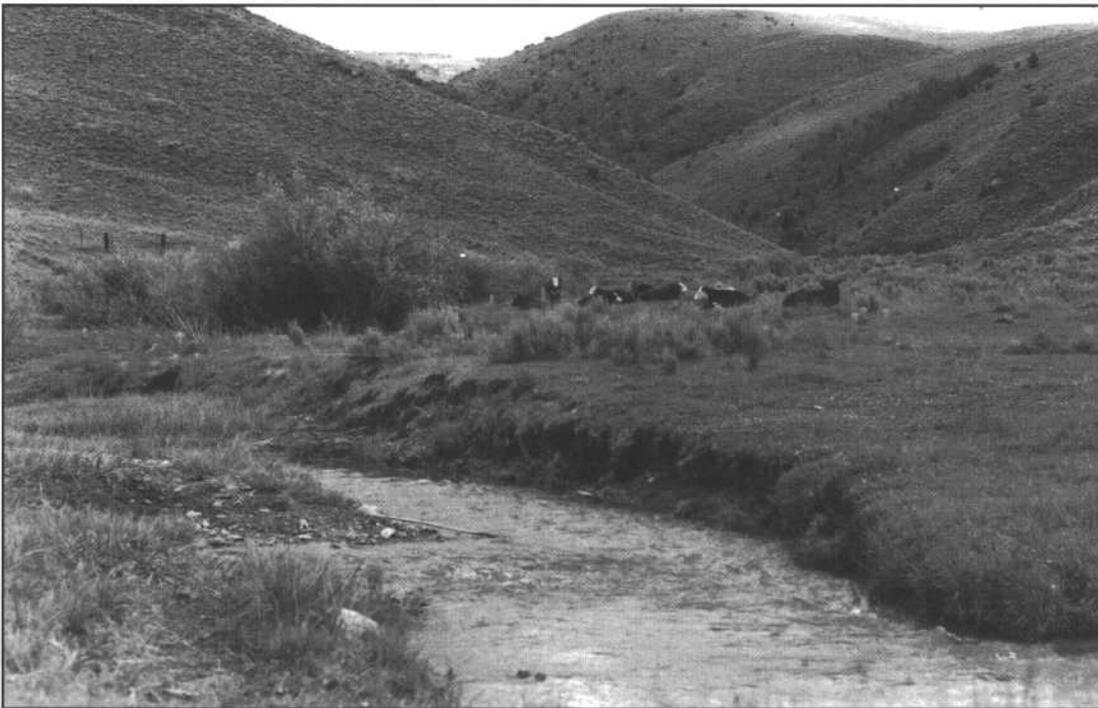


*1. Passive, Continuous Grazing; Spring-Summer, Summer-Fall, or  
"Season-Long" Grazing*

In this document, the term "passive, continuous grazing" means grazing throughout the growing period, with little or no effort to control the amount or distribution of livestock use in particular areas. Riparian areas will usually be overgrazed under passive, continuous grazing (Figures 2 and 3). During portions of the grazing period when air temperatures are hot, riparian sites are usually preferred by livestock over upland sites on arid and semiarid ranges due to the presence of water, lush forage, more consistent regrowth, cooler air, shade, and relatively flat terrain. Until utilization becomes excessive, livestock do not need to spend as much time and effort in riparian areas as they do on uplands to satisfy their daily nutritional requirements (Skovlin 1984). In Montana, during August and September, approximately 80 percent of the forage used by livestock may come from riparian sites, even though they often comprise less than 4 percent of the total pasture (Marlow 1985).

Similarly to passive, continuous grazing, riparian areas may also be overgrazed under a program of deferred rotation or rest-rotation grazing with an extended season of use. Use on adjacent uplands in such pastures may be moderate or light. This concentrated use of areas next to water in effect results in the creation of "upland exclosures," and often reduces the effectiveness of the grazing prescription for the uplands (Elmore pers. comm.).



**Figures 2 & 3.** Typical impacts from passive, continuous grazing. Note bank hoof shear, lack of vegetation on point bars, encroachment of dry land vegetation, willows well above the channel elevation, heavily hedged willows, presence of only one age class of willow, lack of adequate vegetation for silt filtering and bank protection, and the wide, shallow stream profile.

## *2. Spring and Fall Grazing*

Spring and fall grazing in the same year may work in some cases, but it usually fails to meet riparian vegetation needs because it doubles the potential limitations of either spring grazing or fall grazing alone. If temperatures are still warm when fall grazing begins, livestock concentrate in the riparian zone while palatability of both herbaceous plants and willows is high. Appropriate use on willows can easily be exceeded and residual vegetation for protection of banks during high flows is removed before uplands are grazed (Figure 4). Livestock preference for the riparian area is compounded the following spring because the removal of standing dry matter increases the palatability of riparian forage over ungrazed upland plants.

Successful spring and fall grazing was observed by BLM's National Riparian Service Team on a private, irrigated riparian pasture in south-central Idaho. Factors contributing to success in this case included plentiful herbaceous forage, water availability throughout the pasture, and a short duration of use (approximately 2 weeks) in the fall. Above all, the owner/operator observed use daily.



**Figure 4.** An example of typical spring and fall use on the right compared to winter use on the left.

## *3. Riparian Pasture*

Riparian pastures may be smaller areas of rangeland containing both upland and riparian vegetation that is managed together as a unit to reach riparian objectives. They may also be streamside pastures containing only riparian vegetation. They differ from other pastures that are managed primarily to achieve results in upland

areas. A riparian pasture is particularly applicable where the riparian zone encompasses an area large enough to be managed separately from the uplands. Because it is separate from the rest of the ranch or allotment, it can be grazed or rested depending on current conditions and stream riparian needs (Elmore and Kauffman 1994), providing the ultimate in control and flexibility. Riparian pastures can be used seasonally, in conjunction with rotation strategies, or as special use pastures (i.e., gathering pasture, bull pasture, etc.).

In the design of riparian pastures containing both upland and riparian vegetation, the balance of forage between upland and riparian areas is important. Forage in the upland sites should not limit proper distribution or utilization; for example, there should be enough forage in the upland areas so that livestock are not forced to the riparian areas to find sufficient forage. Forage balance may change with changes in season of use and kind or class of livestock.

Platts and Nelson (1985) found that on six 10-acre pastures in Idaho, Nevada, and Utah, the timing and location of grazing in specially managed riparian pastures could be controlled much more effectively than in large allotment pastures, providing an easier way to make grazing compatible with other resource uses. Using riparian pastures offers alternatives to eliminating livestock grazing and fencing riparian boundaries, which can be costly. By experimenting with different types of riparian and upland range, different sizes and shapes of pastures, and different ratios of riparian forage to upland forage, it may be possible to efficiently graze riparian vegetation without damaging this sensitive zone.<sup>1</sup> In mountain meadow ranges, special management pastures would need to be larger to better match benefits derived from improved riparian and fish habitat with the costs of fencing. The influence of a livestock herd's home range on grazing use requires careful analysis; pastures may have to be larger than a herd's home range in less productive range types. When fencing narrow streamside corridors or eliminating livestock from the allotment are the only alternatives for maintaining productive riparian and aquatic habitats, the cost of special management pastures may not seem exorbitant.

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<sup>1</sup> This may not be practical in many cases due to cost.