GRAZING MANAGEMENT TREATMENTS ON RIPARIAN AREAS

Riparian Pasture

small pasture within an Allotment that is set aside to be managed independently to achieve a specific vegetative response (Platts & Nelson 1985c)

Riparian Pasture

Potential Advantages

- provides for closer management and control
- possible to graze these pastures more frequently but should be evaluated on a case-by-case basis
- can be used as seasonal pasture, in conjunction with rotational strategies, special use (i.e. ultimate flexibility without forgoing use of uplands)

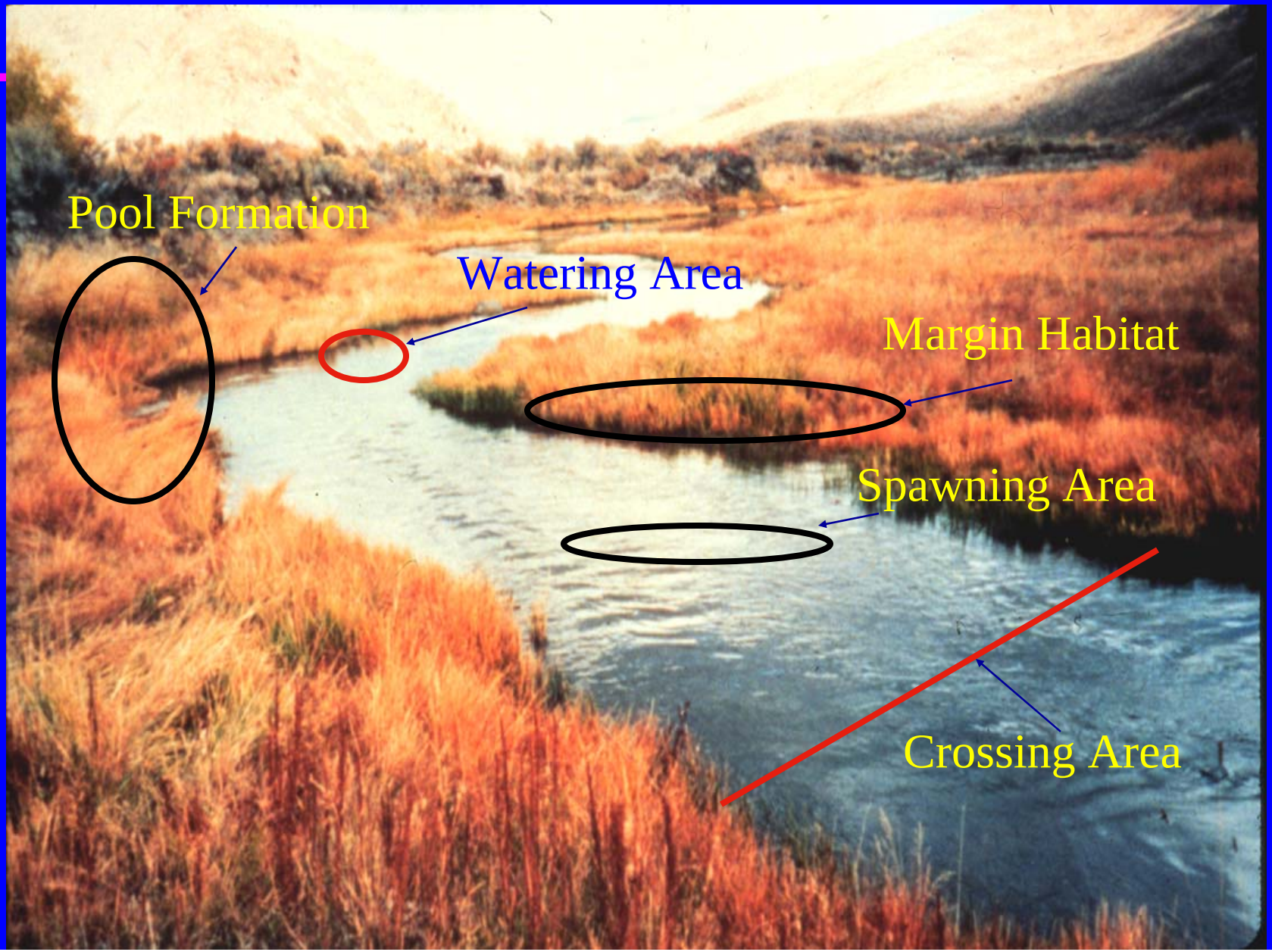
Possible Disadvantages

- often short duration
- needs to be closely managed

North Fork Humbolt River - 1989

Season long

NF Humboldt River 1994 Riparian Pasture



Winter Grazing

A pasture that is used during the plants dormant season

Winter (dormant-season) Grazing

Potential Advantages

- minimal soil compaction
- limited bank trampling
- utilization of the herbaceous species is not detrimental to the plants
- livestock distribution more easily controlled

Winter (dormant-season) Grazing

Possible Disadvantages

- reduction in streambank protection capabilities
- reduced sediment entrapment in the spring
- problematic browsing of trees and shrubs
- damage to trees and shrubs by trampling and rubbing
- potential for soil compaction if livestock are present when spring thaw occurs

Little Bear Creek, 1977

Season long

Little Bear Creek, 1987
Winter Grazing

Wickiup Creek, 1939

29 Years Winter Grazing

Wickiup Creek, 1991

- Culls riparian loafers
- Salt away from stream
- Different turnout location yearly

Spring Grazing

(early on - early off)

A pasture used during the early growing period for upland vegetation

Spring (early season) Use

Potential Advantages

- better livestock distribution
- reduced use of riparian vegetation
- reduced amount of soil compaction and bank trampling
- allows time for subsequent regrowth of vegetation
- presence of palatable herbaceous plants reduces pressure on woody plant species

Spring (early season) Use

Possible Disadvantages

- potential for soil compaction and bank trampling is greatest
- utilization may occur during the critical period of plant growth and development
- repeated grazing of desirable herbaceous species at this time may affect plant vigor
- may adversely affect wildlife in the area

Bully Creek 1982

Season long

Bully Creek 1988

Spring Use

South Fork Crooked River 1979

Season long

South Fork Crooked River 1986
Livestock exclusion & Spring use

Hot Season Grazing

(Mid-summer)

A pasture that is used during the plants' critical growing season

Hot Season (mid-summer) Grazing

Potential Advantages

- streambanks more stable than earlier in the year
- frequently sufficient soil moisture to allow for regrowth
- riparian herbaceous vegetation may be more palatable and nutritious than desiccated upland plant material

Possible Disadvantages

- greater tendency of livestock to remain in the riparian area and stream channel
- reduced plant vigor and possible changes in vegetation communities from the more intense use that results
- possible damage to tree and shrub species

Hot Season Grazing

Season Long Grazing

Fall Grazing

1.Season long grazing and degraded conditions as you've seen many times.

(Late Season)

A pasture that is used after the plants' growing season

Fall (late season) Grazing

Potential Advantages

- most plants have completed their growth cycle
- soils are drier, which should reduce soil compaction and bank trampling
- generally less impact to wildlife

Possible Disadvantages

- regrowth of vegetation generally doesn't occur
- may limit the capability of plant communities to fulfill their riparian functions during spring runoff
- livestock much more likely to browse woody species
- poor livestock distribution
- palatable upland forage often is not present

Systems That (Generally) Don’t Work

- Season - long (spring - summer - fall)
- Spring - fall (same year)

Winter Grazing Left Side
Spring-Fall Grazing Right Side

Ft. Pierre National Grasslands, SD

Season Long Grazing

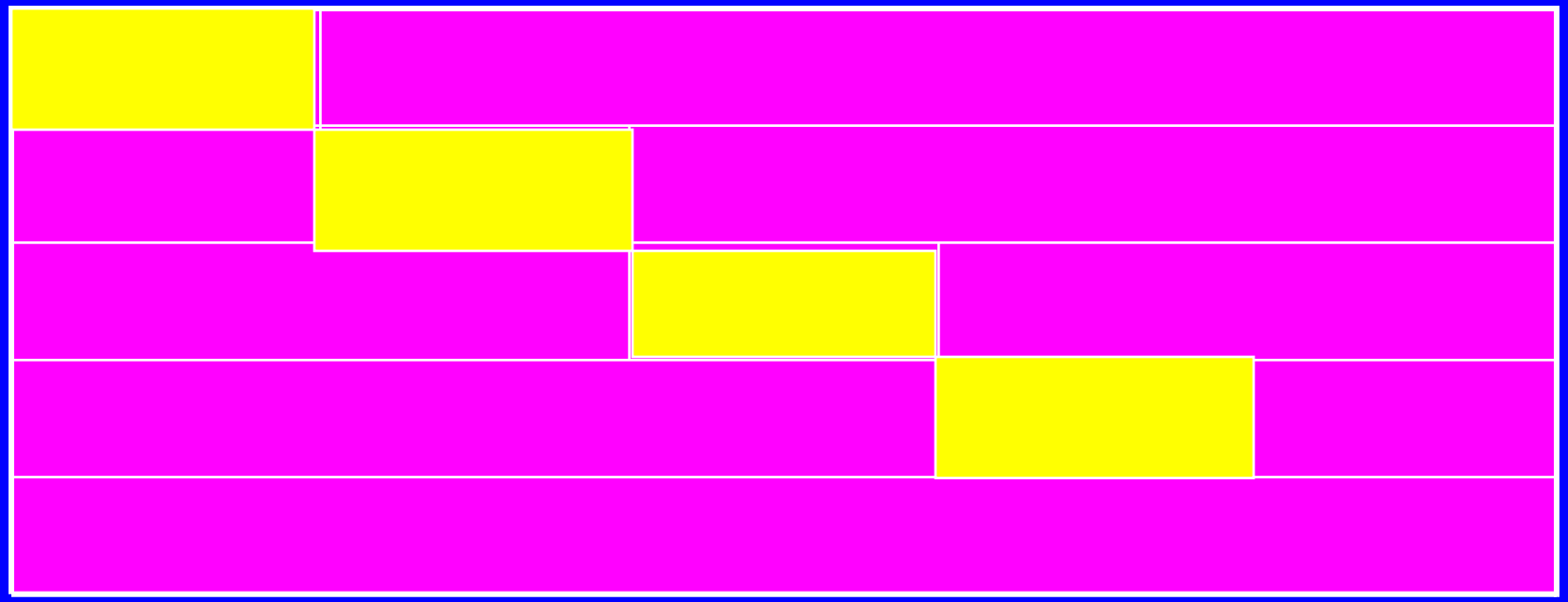
Ft. Pierre National Grasslands, SD
After Improved Grazing Management

Rest Rotation

Rest Rotation

Five Pasture Grazing System

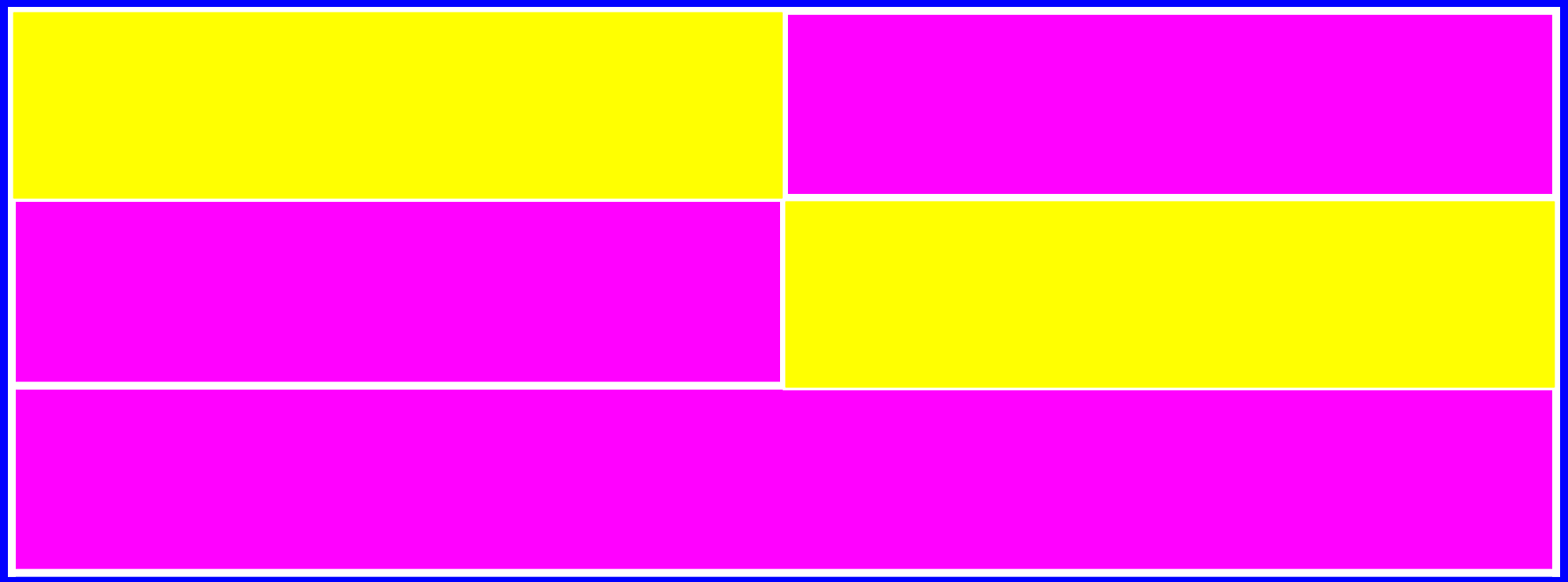
Year 1: Graze during growing period
Year 2: Graze flowering to seed ripe
Year 3: Graze after seed ripe
Year 4: Graze after seed ripe
Year 5: Rest entire year



Rest Rotation

Three Pasture System Grazing

Year 1 Graze during the growing period
Year 2 Graze after seed ripe
Year 3 Rest the entire year



Rest rotation - Strawberry Creek

Strawberry Creek - Rest Rotation

Wildcat Creek - Rest Rotation Didn't Work!

Beaver Creek

Higgins Creek
3-pasture Rest Rotation

Deferred Rotation

Deferred Rotation

- Provides critical growing season rest for each pasture each year, but each pasture is also grazed.
- Usually varies the time of year any one pasture is grazed.

Van Duzer Creek

Mining & Intensive Grazing

Van Duzer Creek 1982

Van Duzer Creek

5-pasture deferred rotation

Van Duzer Creek
Woody Recruitment

Goosey Lake Flat Creek 1965

Season Long

Goosey Lake Flat Creek 1991

Early use 1 year, 2 years late use

Goosey Lake
Flat Creek

Rock Creek, Rio Grand NF
Season long Grazing

Rock Creek, Rio Grand NF
3 Years after Deferred Rotation

Successful Grazing ...

- Commitment of the operator/manager to achieve riparian objectives
- Specific needs of each unique riparian area relative to potential & capability
- Compatibility with the entire ranch operation

"In fact, as long as good management is practiced so there is control of livestock distribution and grazing intensity, the specific grazing system employed may not be significant."

–Warren Clary & Bert Webster