

Appendix A- Riparian Management Guidelines for the Lower Clover Project

Introduction

Riparian areas are transitional areas between the aquatic and terrestrial ecosystems. The delineation of the riparian area geographical boundary is dependent on characteristics of landform, water regime, soil and vegetation. Riparian area boundaries for this project will include all of the following, if they are present: aquatic ecosystem, riparian ecosystem, wetlands and floodplains.

Perennial Streams

Apply these guidelines to all streams within the Lower Clover project area that are perennial, regardless of watershed size. Perennial streams run water yearound and frequently extend much further up in the drainage network than what is shown as perennial on USGS quads.

Riparian Area Width: The width of the riparian area will be a minimum of 100 feet upslope from the toe of the slope, or greater as dictated by the riparian area delineation characteristics described above. Distances are measured as slope distances.

Riparian Area Management: No programmed harvest within 100 feet either side of the channel, measured from the top of the channel bank. Timber cutting within this 100 foot strip will only be done to meet riparian area management objectives. The remainder of the riparian area, from 100 feet out to the designated riparian boundary, will be managed to maintain a minimum 70 basal area.

Intermittent Streams

These guidelines apply to all functioning stream channels within the Lower Clover project area with watershed areas **greater than or equal to 50 acres**, which are not perennial, but have a generally continuous flow for most of the year. Intermittent streams have flow that persists for more than just periods of storm runoff or snowmelt.

Riparian Area Width: The width of the riparian area will be a minimum of 100 feet upslope from the toe of the slope, or greater as dictated by the riparian area delineation characteristics described above. Distances are measured as slope distances.

Riparian Area Management: No programmed harvest within 50 feet either side of the channel, measured from the top of the channel bank. Timber cutting within this 50 foot strip will only be done to meet riparian area management objectives. The remainder of the riparian area, from 50 feet out to the designated riparian boundary, will be managed to maintain a minimum 70 basal area.

Intermittent Streams and Ephemerals

These guidelines apply to all functioning stream channels within the Lower Clover project area not previously described, which are watersheds typically **less than 50 acres**. Where short interruptions in the functioning stream channel occurs, riparian area protection should be continued through these areas. Interruptions in a continuous channel network can occur, such as when flow disappears into deep colluvium or underground channels.

Riparian Area Width: The width of the riparian area will be a minimum of 50 feet upslope from the toe of the slope and above the uppermost extension (the head) of the ephemeral channel; or greater as dictated

by the riparian area delineation characteristics described above. In the case of most ephemerals, the toe of the slope will be considered to be the top of the channel bank. Distances are measured as slope distances.

Riparian Area Management: No programmed harvest within 25 feet either side of the channel, measured from the top of the channel bank, and above the head of the ephemeral channels. Timber cutting within this 25 foot strip will only be done to meet riparian area management objectives. The remainder of the riparian area, from 25 feet out to the designated riparian boundary, will be managed to maintain a minimum 40 basal area. EXCEPT that for **two-aged harvest units**, there is no programmed harvest within 50 feet either side of the channel and above the head of the ephemeral channel.

Wetlands

No wetlands have been found at this time in the Lower Clover project area. However, if wetlands are found during implementation, then these guidelines would be followed. These guidelines apply to all wetlands 0.1 acres or larger. Riparian values of smaller wetlands would be considered and protected if appropriate.

Riparian Area Width: The width of the riparian area will be a minimum of 50 feet around the edge of all wetlands greater than 0.1 acres in size, but less than 1 acre in size; and 100 feet around the edge of all wetlands 1 acre or greater in size.

Riparian Area Management: No programmed harvest within the minimum riparian area width. Maintain an intact vegetative community, including overstory and understory.

Additional Guidelines and Considerations

1. All prescribed riparian area width distances are measured as slope distance on the ground.
2. There will be **no site prep** within the designated riparian area width.
3. Wildlife "leave clumps" can be incorporated into riparian management areas, as appropriate.
4. Mechanized entry into the riparian area is permitted when site specific conditions allow the use of ground-based logging systems (track or rubber tire machines). In these cases, overland skidding is allowed; bladed skid roads are **not** allowed. However, winching trees by cable is the preferred method in most cases. Helicopter systems may be used to remove trees from riparian areas. Minimize specified and temporary road construction and reconstruction, and skid road construction, through riparian areas.
5. When applying these guidelines on the ground, there may be situations where riparian widths need to be adjusted. Some of these could include:
 - sites having sensitive soil types,
 - sites with many intermittent or ephemeral streams in close proximity,
 - presence of or high potential habitat for a threatened, endangered or sensitive species,
 - bank instability, and
 - sites with stable soils and no other conflicts could permit less restrictive guidelines; these instances will be reviewed to ensure impacts are within what was analyzed in the Lower Clover Environmental Assessment and then documented.