

**RIPARIAN AND WETLAND ECOLOGICAL HEALTH EVALUATION OF  
SELECTED STREAMS ON THE CHARLES M. RUSSELL NATIONAL WILDLIFE  
REFUGE <sup>TWS</sup>**

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Between August 7 and October 15, 1995, the Riparian and Wetland Research Program of the University of Montana evaluated 113 stream segments on the Charles M. Russell National Wildlife Refuge (CMR NWR) in northcentral Montana. The evaluations provided USDI Fish and Wildlife Service managers on the CMR NWR with information to help them appraise their current management practices, and to help them develop strategies to meet objectives regarding riparian and wetland health on the refuge. Sixteen factors relating to hydrology and streambank, geology and soils, and riparian vegetation were scored for each stream reach. Based on the scores, the reach was classified as functioning, functioning at risk, or nonfunctional. Sixty-nine percent of evaluated stream segments scored in the nonfunctional category. Evidence from livestock exclosures and adjacent ownerships suggests that current livestock grazing practices may be inappropriate for some CMR NWR streams given the fragile soils that occupy much of the land area. Other factors affecting health scores may include water removal (via stock ponds and upstream irrigation withdrawals) and the absence of beaver (*Castor canadensis*).