



File Code:

Date: 12/8/2010

Subject: Red Knob and Cherry Creek AMP– Implementation Monitoring Review

To: Bozeman District Ranger

On September 14, 2010 an Implementation Monitoring Review was held for the Red Knob and Cherry Creek allotments. In attendance were Reggie Clark, Bruce Roberts, Scott Barndt, and Mark Story. Reggie Clark later reviewed the area on 10/8/2010.

Livestock grazing in the area was evaluated in the Environmental Assessment for Grazing Allotments in the Cherry Creek and Spanish Creek Areas (6/8/2003). The grazing allotments were authorized in Decision Notice (DN) and Finding of No Significant Effect (FONSI) on 8/29/2003. The revised AMP enlarged the Red Knob North allotment by adding parts of two vacant allotments, the Cherry Creek and Red Knob South allotments. The Beaverhead NF riparian grazing standards were then adopted to manage riparian grazing impacts to be consistent with the adjacent Trail Creek Allotment on the Beaverhead-Deerlodge NF. The focus of the review was to evaluate the progress in implementation of the revised AMP with particular focus on the sensitive reach of Cherry Creek in Section 23.

The process for this review consisted of the following:

1. Identification and listing of the intended AMP revision activities in the EA, DN, and AMP plan for the Red Knob North Allotment (include areas added from the Red Knob South and Cherry Creek allotment)
2. Field review of the southern part of the Red Knob North Allotment.
3. Team ratings (consensus) for application and effectiveness of the activities implemented using the Montana Forestry BMP audit format.
4. Team recommendations for future GNF AMP's.

Objective or mitigation measure and effectiveness definitions included the following:

Application

- 5- operation exceeds requirements of objective or measure
- 4- operation meets requirements of objective or measure
- 3- minor departure from measure, objective marginally met
- 2- major departure from measure, objective sporadically met
- 1- gross neglect of measure, objective not met

Effectiveness

- 5- improved conditions over pre-project condition
- 4- adequate protection of resources, effective
- 3- minor and temporary impacts on resources, moderately effective
- 2- major and temporary or minor and prolonged impacts on resources or only slightly effective
- 1- major and prolonged impacts on resources or not effective



Evaluation Items - BMP's	source	Applic	Effect	Comments
Red Knob North Activities				
1) construct 0.5 mile of fence along the north side of Cherry Creek.	EA p10 DN p.2	4	3	0.7 mile of fence built in 2004, riparian vegetation improvement is robust but may not be related to the fence construction
2) remove the east west fence in location F to provide for wildlife movement	EA p10 DN p.2	4	4	Removed in 2008. Removed fence had much hair from wildlife indicating previous wildlife obstruction
3) construct a fence in location A and spring construction to improve livestock utilization and distribution	EA p10 DN p.2	not done	na	Not done since the fence would confine livestock to a wetland
4) move fence in location C about 100 yards from the junction with Cherry Creek to prevent livestock congregating in this sensitive area	EA p11 DN p.2, 3	4	3	New fence built in 2004, old fence should be removed to increase effectiveness
5) restrict grazing until July 15 to avoid direct effects on migratory birds	EA p10 DN p.2	3	4	Done 2 of 3 years
6) install gates at strategic locations (figure 3 triangles) to allow safe passage of wildlife, horses and hikers.	EA p10 DN p.3	4	4	Gate locations changed to better locations than the NEPA map triangles which has worked well
7) implement updated riparian grazing standards described in EA Appendix A. bank stability 80% and forage utilization 45% July and August, 30% Sept and October, 4" stubble height at the end of September	EA p11 DN p.3	3	4	Standard applies to any sensitive reach, no intent to monitor riparian grazing standards inside the Cherry Creek enclosure in S24. Bank trampling measurements averaged: 2006 5.5%, 2009, 11.5%, 2010, 10.5%. Transects marked on ground but sporadic measurements
8) avoid placing salt or minerals within ½ mile of the LMW boundary	EA p11 DN p.3	4	3	No salting happens within 0.5 miles of the LMW boundary since the elimination of the Red Knob south allotment leaves the

				nearest cattle about 0.75 miles from the LMW boundary.
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In addition to the implementation review ratings above Pfankuch channel stability ratings were re-run on some of the Cherry Creek segment sites which were originally rated in 1998 (Story, 9/14/1998, 2530 – Water Input for the Cherry Creek and Red Knob Allotments).

stream segment	Rosgen channel type	estimated natural channel stability	1998 channel stability	2010 channel stability	comments
3	F4	102 "fair"	132 "poor"	107 "fair"	some trespass grazing but substantial increase in riparian vegetation extent and vigor
5	G3	84 "fair"	99 "fair"	94 "fair"	
6	B2	44 "good"	51 "good"	48 "good"	segment now fenced off to grazing with light trespass grazing
7	B3a	48 "good"	55 "good"	55 "good"	season of use now reduced to 5 weeks

Some of the implementation review findings will be shown in photos:



Cherry Creek in stream segment 3 in S 24 of the Red Knob allotment. The left photo was taken on 9/26/2005 and the right photo on 9/14/2010. This segment in 1998 was rated in "poor" condition due to high 1992, 1996, and 1997 stream flows and subsequent blowout of beaver dams, residual cattle grazing, and heavy elk grazing. This segment was exclusion fenced in 2004 with some recovery evident in the left 2005 photo from Bruce Roberts. The right 2010 photo shows extensive continued riparian vegetation and stream channel stability recovery. Sedges are starting to recolonize along the greenline and willow establishment is robust. The

stream channel is now rated as a CSR score of fair and only 5 points above natural stability compared to the 1998 rating of poor and 30 points above natural stability. The GNF Forest Plan channel stability monitoring standard is < 20 point CSR increase (high score = less stability) so the 2010 rating moves segment 3 into Forest Plan compliance.



Cherry Creek segment 5 in section 24. This segment has a fairly durable channel bottom with multiple braids characteristic of coarse alluvial deposition. Willow recovery was sufficient since 1998 to raise the CSR score by 5 points, still "fair".



Red Knob burn slash. This slash work was done in 2008 and 2009 in preparation for broadcast burning of meadows in the allotment to reduce conifer encroachment and increase use of the meadows as a fuel breaks. The tree slash, however, has reduced livestock mobility and access to forage in the meadows. The meadow could either be broadcast burned as planned or the slashed trees could be piled and burned.



Transect 1 in the upper Cherry Creek Pasture taken on October 20, 2010. On September 29, 2009, Reggie Clark measured bank trampling at 12% using the Beaverhead Deerlodge method. Other transects measured trampling at 8.75% and 9%. Allowable trampling is 19%.



Transect 2 Cherry Creek. October 8, 2010. Bank trampling measured 10.5% B-D method. Looking downstream.





Cherry Creek within the riparian enclosure. Note cattle trailing within the enclosure. Beaver have dammed the creek in several places. Water levels on October 8, 2010 had risen within the stream channel since the September 14, 2010 review.



Riparian fence in section 24. The fence has not worked to keep cattle out of riparian area. The left side of the fence is within the enclosure, which shows more grazing use than outside the enclosure (right). The fence needs to be repaired in this area as well as both ends strengthened. This enclosure has not been effective at excluding livestock. Bank trampling within parts of the "enclosure" were measured in 2007 at 24%.

Key findings:

1. The Red Knob Allotment has shown substantial improvement in 2010 compared to the initial inventory in 1998 and riparian photo points in 2005 – particularly in the lower Cherry Creek segment 3. Most of the fence moving or construction in the EA has been completed or appropriately modified to on the ground conditions. Elk use in the allotment in 2010 has reduced to about 1/3 of the elk use in 1998 and no extremely high flow discharge events have occurred since 1998 allowing upper bank stabilization and revegetation on lateral bars. Overall riparian vegetation trend is up. Increased beaver activity has locally elevated water tables further expanding riparian vigor.
2. The Appendix A riparian grazing standards have been met for all of the Red Knob North pastures although the streambank trampling and stubble height standards have not been measured every year. The Red Knob Decision Notice and AMP does not specify the exact frequency of bank trampling monitoring.
3. The exclusion fence in Cherry Creek segment #3 has not been effective in keeping all cattle out of the riparian area of Cherry Creek. In the wet summer 2010, with robust vegetative production, utilization has been light and well within riparian grazing standards.
4. At least 3 years of Westslope Cutthroat trout year classes were observed from the WCT re-introduction program in Cherry Creek. The WCT re-introduction program includes a habitat maintenance and improvement component for which the Cherry Creek riparian improvement is beneficial.

Recommendations:

1. The exclusion fence around Cherry Creek in the Red Knob North pasture has not been effective in keeping livestock from grazing in the enclosure. The cattle evidently enter the enclosure by stepping over the wire strands. Permittees have suggested adding a barbed wire strand to make a 5 wire fence. Braces and end sections of the fence need to be rebuilt. Consider making this a true let down fence so fence could be let down as a unit. An electric fence was considered but because the public disconnects power on the 2 existing fences during bow-hunting season might be ineffective.
2. Remove the fence from location G (EA figure 3).
3. Because of the large Range workload (D6 has 34 allotments), and very limited GNF range staff, GNF range monitoring is not completed as often as desirable. The limited monitoring extends to the Red Knob Allotment. The problem has become more difficult in recent years due to a declining NFRG budget. The review team endorsed a concept of prioritizing and planning AMP administration and monitoring work GNF wide and placing limited range staff time to high priority allotments.
4. The tree slash associated with the Cherry Creek fuels reduction project has reduced livestock mobility and access to forage in the meadows. The meadow could either be broadcast burned as planned or the slashed trees could be piled and burned.

Mark T. Story
Forest Hydrologist

Bruce Roberts
Fishery Biologist

Reggie Clark
Range Conservationist