

Ten-Mile Allotement
By
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On Nov 20, 2008 I visited portions of the Ten Mile Allotment on the Beaver Ranger District with Art Partridge and Doug Sorenson. We looked at a number of checkdams that were installed in the 1970's to determine the best course of action to take as far as maintenance needs and possibly adding a few more structures between the existing checkdams. We looked at some headcuts, side gullies, and one riparian area and discussed possible needs to improve the channel system.

Of particular notice was a large headcut, about 6-8 feet deep located immediately below a small wet meadow/riparian area. The wet meadow, probably less than an acre in size, was extremely compacted (not due to freezing conditions as temperatures had not yet dropped below the freezing point this year). Generally speaking, wet meadows that have been overgrazed often exhibit a hummocky soil surface. This meadow did not have these features but had obviously been overgrazed as evidenced by its' extreme compaction. This small wet meadow needs to be fenced as soon as possible and the soil compaction measured on an annual bases, in the summer time. The large headcut needs to be armored and stabilized before it migrates upstream and cuts through the wet meadow and converts the riparian vegetation into upland sagebrush types. This meadow in its' present condition fails to perform its' hydrologic function, which is to catch and hold water for slow release during the later part of the season when flows are generally low. In failing to act as a catchment its' flood retention capabilities are destroyed. Water from the stream will have greater erosive power, especially during high flows. This results in greater cutting power and more channeling (downcutting) as can be observed within this allotment and in other areas. Sedimentation is also increased and the FS has an obligation under the Clean Water Act to keep waters of the nation clean, including from excess sediment.

Other headcuts located upstream also need to be stabilized as well as do the side gullies. Possible designs include installation of grade control structures that will raise the level of the streambed over time. This will possibly raise the water level of the surrounding area and bring back riparian vegetation where upland vegetation (mostly sagebrush) presently exist. Soils, largely of granitic and volcanic origin, are sensitive in this area, making them more erosive and perhaps more difficult to armor the headcuts. Designs will need to be done correctly and only after grazing management is undertaken, otherwise the end condition may be worse than the present, not to mention lots of wasted money.

Some of the checkdams could use some maintenance and some are probably ok as is. It may be helpful to install a few structures between the presently existing checkdams, but again, grazing management needs to first be undertaken and if any grazing occurs at all after new structures are put in they will probably need to be fenced for at least the first few years.

Much of the vegetation on the allotment is sagebrush. This could be treated to partially replace the sagebrush with herbaceous ground cover. This will not only improve forage for livestock but will improve watershed conditions by decreasing accelerated erosion due to increased ground cover. None of this will do much good if the allotment is not actively managed. If cattle are just put out to pasture in the spring and left unattended until fall, no structures or treatments will do any good in the long run and will likely result in more damage. Even if the season of use is changed, it is unlikely that improvements will occur without constant active management on the part of the permittee throughout the grazing season. Inasmuch as cattle like to spend time in the riparian zones, management that keeps them out of these areas as much as possible is necessary for getting the allotment back into proper functioning condition.

Cattle need to be kept away from the riparian zone because this area is more sensitive than the uplands and is important ecologically due to the increased biodiversity within these wetter areas. Much of our riparian areas have already been lost over the last 150 years and we now need to protect what we still have. Nuff said?? Here are just a few thoughts on some strategies for bringing this about on this allotment. Again, **active management** (a rider or something close to it). Other ideas: what do we have in the way of off site (away from stream) water sources? Is there any potential for piping water from some of the higher elevation springs? If the terrain is right we could put pipes in and let gravity do its work all the way from the spring to the trough. Vince Pace is quite proud of his piping project from Koosharem Spring down to the lowlands below Monument Peak. Other low cost pumping methods may be useful. Salt and mineral block placement on ridgetops or areas away from streams may help. Good old fashion fencing is always an option.

Is there much on this allotment in the way of woody species like willows or aspen that get hammered by livestock? Cattle may tend to browse on these in the late summer if the herbaceous species are gone. For this reason early season grazing may be beneficial in protecting the woody species. Early season grazing may also help in keeping cattle out of the riparian areas if there is enough forage on the uplands. I'm not sure what the growing season is for the palatable herbaceous species in this area. With mid summer grazing cattle may tend to spend more time in the riparian areas to keep cool if there is little shade in the uplands. I'm not a rancher, but the literature states that turning cattle in on the uplands, if the area has enough herbaceous vegetation and off-stream water sources, can result in better dispersal and likely less pressure on the riparian.

Lastly, if it is at all possible the permittee should be educated as to the economic benefits of better management. The literature is full of examples of how ranchers have improved the range and their profit by using better management techniques. This has always involved active management (have I said that before?). Sometimes just a change in technique (ie: season of use, herding, upland water sources, usually a combination of several techniques) has resulted in phenomenal improvements.



Three foot headcut just below one of the check dams.