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MISSOURI RIVER CONSERVATION DISTRICTS COUNCIL

June 6, 2008

341st Civil Engineer Squadron
Environmental Flight
Malmstrom AFB, MT

Sent via e-mail to john.hale@malmstrom.af.mil

RE: Draft Final Whitmore Ravine Watershed Assessment, Upper Missouri Dearborn Rivers Sub-Basin, Sub-Unit 686

To Whom It May Concern:

The Missouri River Conservation Districts Council, a collaboration of the 15 Conservation Districts along the Missouri River in Montana, has reviewed the above-referenced report and, while we do not agree with everything that's in the report, we understand that in order to move the process forward and begin working toward a solution to the erosion, the report has been acknowledged in its draft form by the Cooperative Conservation Committee (CCC). Based on that understanding, commenting and discussing the specific items in the report is probably not in the best interest of time; however, we do take issue with the "factors influencing erosion" cited in the report.

Regarding the discussion of geology, it should be noted that the "presence of hydrophilic clays in the soil sequences and the underlying geology of the watershed" as cited on Page 39 of the report would not play the principal role in the ravine erosion if the heavy and constant runoff from Malmstrom had not initiated the erosion process. The soils and erosion taking place now are a natural reaction to a process that first started with the unnatural flows entering the ravine form Malmstrom. Additionally, if not for the constant dry weather flows in the ravine from Malmstrom as cited on pages 39 and 40, the process of toe saturation, slope failure, and erosion would not be occurring in the ravine. A comparison of the west and east forks of the ravine illustrates that the area's geology can withstand naturally occurring stormwater flows, but Malmstrom's stormwater runoff events combined with the continual dry weather flows that enter the west fork are the real reason for the continued erosion of the ravine.

The Council whole-heartedly disagrees with the statement on Page 41 and elsewhere in the report that "Another factor contributing to the erosion in Whitmore Ravine is the presence of cultivated fields directly above the forks throughout the watershed". If you take the time to walk the ravine, you will notice that the drill rows run parallel to the ravine and those drill rows have not been breached by runoff water; therefore overland flows across the cultivated fields and into the ravine are not occurring and the presence of cultivated lands is not a significant factor in the erosion. Additionally, the assertion that "cyclical tilling of the soil for planting loosens the soil" (page 41) would most likely result

in wind erosion which would be evidenced by piles of loose soil blown up against barriers surrounding the field – this is simply not the case in that field. There is little, if any evidence of soil erosion caused by tilling and crop harvesting and any assertion that those practices add to the erosion of Whitmore Ravine is inaccurate. It is also worth noting that several areas of the ravine adjacent to natural grassland vegetation have eroded just as badly as the areas adjacent to the cultivated fields. In fact, some of these are shown in your report, most notably Figure 4.3 where you point out the cultivated field on the left side of the photo, but fail to acknowledge the native vegetation on the right side of the ravine which has eroded just as badly if not worse than the side adjacent to the cropland. Additionally, while the practice of providing greater buffer distances is a good conservation measure, in the case of Whitmore Ravine it has been shown over the years that even when a buffer is left, the erosion will carry away the buffer along with several rows of crop.

The Council also takes exception to the comparison of the delta caused by erosion of the Whitmore Ravine to the delta at the mouth of Box Elder Creek. The Box Elder Creek watershed is so much larger than the Whitmore Ravine area that there is no comparison between the two. Box Elder Creek is listed on the Montana Natural Resource Information System website as 42.4 miles long, hardly comparable to the Whitmore Ravine.

Additionally, during the May 6, 2008 CCC meeting, the assertion that Missouri River flows were contributing to the erosion was made. It would seem that in a natural river system where the water is free-flowing and actively eroding the channel, it could lead to enhanced erosion of tributaries; however, in this case, the Missouri River at the mouth of the Whitmore Ravine is backed up behind a dam. It is highly unlikely that the Missouri River flows are intense enough to cause enhanced erosion along the Whitmore Ravine or other tributaries in that area.

Thank you for considering our comments on the draft Whitmore Ravine Watershed Assessment. Even though we disagree with several points made in the report, we look forward to working with you to find a solution to the erosion. It's time to stop the erosion and change the Whitmore Ravine from a blight on our landscape to an example of cooperative work enhancing our neighborhood.

Sincerely,

Vicki Marquis
Coordinator

cc: Cascade County Conservation District
Montana Department of Environmental Quality
Montana Department of Natural Resources and Conservation
Montana Congressional Delegation