

Public Comment for Upper Elk River Technical Sediment TMDL

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Introduction

At the outset please note that I agree with the conclusion found in section 7.2 of the report that since load capacity is currently exceeded by sediment input, a zero LA is the only acceptable management strategy for the impacted reaches of Elk River. However, there are a few points in the report worth mentioning critically and those are to follow.

Natural Loading

First point in interest is the direct correlation between fluctuations in the natural loading data and the management related sediment loading data as discussed but easily visualized in the Figure 15 on page 62 of the report. The direct correlation between increase in management sourced sediment and natural sediment begs the question of whether the two sources are being accurately measured and independently assessed. The direct correlation between an increase in management related sediment input and natural sources (absent a showing of similar fluctuations in natural causes such as rain quantity and intensity) seems to indicate that management related sediment sources may be “bleeding” into natural load data.

Absent a showing that rain (or other natural events) are the cause of the fluctuations in natural loading it appears that management sources are the actual cause of an increase in this natural load source and therefore management activities are actually causing more of the load than are being assessed to that management. That is management is having more of an affect than is measured in the report because as sediment increases more of that

sediment is being allocated to “natural load source” even though it is likely management sources are the cause.

Additionally as relates to actually assessing natural sources of sediment Figure 14 on page 58 of the report illustrates this point well. Upper Little South Fork Elk River (i.e. the headwaters preserve... a largely undisturbed forest ecosystem) is by far delivering the least sediment of any contributing sub-basin. It is therefore logical to conclude that actual natural sources are less than seem to be attributed to those sources in the report.

The bottom line here is that it appears that management sediment sources are actually delivering more sediment than is attributed to them due to the fact that some of the management related sediment is being attributed to natural sources.

Silviculture Improvement and Sediment Delivery Decrease

Figure 11 on page 36 of the report shows a very interesting trend related to Silviculture improvements and the affect of those improvements on sediment delivery. We know that in theory how logging is implemented has improved over time from the use of creeks as skids back in the day to leaving creek side buffers and soil retention oriented extraction. However, it is clear in this table that improvement in implementation is not sufficient to support on going extraction if good water quality is to be achieved. Basically Figure 11 shows that although silviculture technique improves over time sediment delivery goes up and down depending on rate of harvest primarily (see discussion below).

Additionally Figure 11 shows in the pie graph portion an inevitable reality that this TMDL process must deal with. That is as you follow the pie graphs from left to right as a progression through time you see that once the soil is disturbed the sediment has to go somewhere and as the old saying goes “sh*# rolls down hill”. That is to say that once the harvest boom of the decade between 1988-1997 occurred the silt rolled down hill and now in no uncertain terms if water quality is to improve the only logical conclusion is that silviculture improvements are not the solution. As discussed below the answer is to slow the cut rate, and given the goal of a zero LA for the time being the only acceptable cut rate is zero until a time when WQO’s have been achieved.

Harvest Rate of Greatest Significance

The most telling decade of interest in Elk River's history as discussed in this report is the time period of 1975-1987. During this time period Elk River sees the least sediment delivery and the greatest percentage of that delivery is from surface run off. Some of this improved condition seems attributable to the improvements in silviculture as discussed above through the passage of the Forest Practice Act.

However, it is also the period that saw the lowest cut rate. The most logical conclusion is a lower cut rate produces less sediment. Simple. It is true that over time less sediment is produced per acre cut, but still what we have here is a watershed that is impacted beyond its ability to deal with the management related impacts.

In addition to improved silviculture methods rate of harvest must be decreased and in the short term halted until the watershed can recover.

Data Source

Though it is commendable that the waterboard has chosen to use many data sources to achieve the broadest most inclusive document, the prudence of accepting estimates from the polluting entity and basing regulations off those estimates is questionable at best. Asking the foxes input on how to best guard the hen house might not be the best tactical approach.

The Goal

In section 4.2 it is stated, "Any change from pre-permit condition toward the numeric targets will be considered as making measurable progress." It is appropriate to recognize and appreciate motion towards a goal and encourage that trajectory but it is also import to not define any motion towards a goal as reaching the goal itself. The goal of reaching WQO's is the goal. Progress toward that goal is progress, but not the goal it self. Striving toward and reaching WQO's would be well served by redrafting this portion of the report to represent that distinction.

Restorative Efforts Prescribed

It is a very common human approach to a problem to want to do something about an existing issue. Here we have a dramatically impaired watershed suffering from sedimentation due to a cut rate dramatically in excess of what is sustainable. As mentioned above the only logical management plan at this point is to give the watershed time to recover. It is tempting to think we can help that process along with restorative measures like placing of LWD etc. as discussed in section 8.2 but this approach should be taken with extreme caution. All too often in human history there are examples of people meddling in natural systems, “messing” them all up, and then doing more harm than good in trying to repair the condition of imbalance we created in the first place. Some times the best cure is time alone. Not that a helping hand could not be lent and help improve water quality, it would just be prudent to take a very cautious approach to these measures. Sometimes more disturbance is just more disturbance even when done with the best of intention.

Please use caution, be attentive to the results, and keep an eye open to the possibility that the intention to do more good can and does sometimes produce more harm and change the plan if that appears to be the result.

Conclusion

The watershed is over burdened with sediment as the report indicates. The report concludes that a watershed wide management plan with zero management related sediment input is required at this time since the watershed cannot affectively move the existing sediment load. I support the findings and conclusions of the report in general and hope the board can actuate the plan to reach the goal of zero sediment input from management related sources in both the short and long term.