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19 July 2005

Russ Forba
U.S. EPA
301 S. Park Drawer 10096
Helena, MT 59626

Re: Draft Remedial Action Monitoring Plan

Russ:

At the last Missoula Water Quality Advisory Council meeting it was announced you would take comments on the draft remedial action monitoring plan for the Milltown site until the end of this week. Please consider the following comments from Montana Trout Unlimited.

We acknowledge and accept that there could be short-term adverse effects on surface and ground water quality as well as the aquatic community of the Clark Fork during removal (and restoration) activities at the Milltown site. So TU has long accepted the premise that some short-term impacts are well worth the long-term benefits that will result from removal. We also recommend there will be tradeoffs regarding how long it takes to complete the project and how much short-term impact is acceptable – with the working premise that it might be better to accept higher daily or seasonal impacts over a shorter period, instead of lower daily or seasonal impacts over a longer period.

However, it's still important that the public that uses the river and who depend on local groundwater as drinking water sources feel confident that all reasonable and practical measures will be taken to reduce the short-term impacts. Because the public has not been party to discussions regarding remediation and the consent decree, because the public has had little opportunity to comment on acceptable levels of short-term impacts and because the draft plan has not been out very long – at least long enough to allow for digestion and background research – we hope you'll give serious consideration to the following recommendations. We're largely pleased with the plan, but request EPA consider some modifications.

Trigger values for copper and TSS

We recommend that the trigger, or warning, value for copper be reduced to something less than 50 percent of the TRV (< 16 ug/l). The proposed trigger value of 80 percent of the regulatory value is too high. Analytical lab error often approaches 10 percent (irrespective of conclusions drawn from the statistical analysis of standard deviation of mean values illustrated in the draft plan), meaning it's quite possible that the acceptable value could be nearly the regulatory limit. More importantly, we don't believe the regulatory limit – be it the Clark Fork TRV value or the WQB acute criterion for copper are always protective anyway. Research conducted as the basis for part of the claim the State of Montana made in its natural resource damage litigation for Clark Fork sites indicated that copper concentrations significantly less than the regulatory *chronic* criteria for aquatic life could still be harmful, at least when behavioral avoidance or food chain considerations are factored in. We are less concerned about food chain considerations than we are about avoidance. Trout will avoid concentrations of copper that are less than the WQB-7 values, the TRV and, the proposed trigger value. Avoidance reduces, at least temporarily, available habitat. Less available habitat can mean less food, higher expansion of energy and higher risk of predation and competition. This could be especially important for sub-adult fish or young-of-the year (YOY). When high concentrations of copper are added to impacts from elevated TSS (up to or over the trigger values), the stress on fish becomes additive.

Therefore, we recommend the values for a trigger level for copper be less than 50 percent of the TRV. As an alternative, we recommend EPA consider a different method for determining acceptable levels of copper and TSS. Add a biomonitoring component, perhaps YOY in live cages in at least one station downstream (Montana FWP is already planning to do this, though apparently results from this will have no bearing, as far as we can tell, on regulatory actions). Use the biomonitoring data to validate the trigger values for TSS and copper. If mortality is significant in the cages, but copper and TSS are below the trigger value, require Arco's contractors to implement additional management practices to improve water quality.

Definition of User Season

This portion of the proposed plan could have used a little public review. Recreational river use on the Clark Fork below and above Milltown Dam has been increasing during so-called shoulder seasons. Some of this use is commercial in nature, primarily outfitted fishing. Angling use on the Clark Fork in recent years starts in late-March (coinciding with particularly popular hatches). April can be very busy in the reach from Milltown to St. Regis, as well as slightly less busy in the reach between Rock Creek and Milltown. We recommend the "season of use," and therefore the season when the trigger criteria apply for water quality be moved up to April 1. We believe it might be appropriate to suspend the values during runoff, which can occur in May or June. Use drops considerably during high flows. EPA could use discharge triggers to determine a

period in late spring when it might be appropriate to temporarily suspend the trigger. We support maintaining the “season of use” to Oct. 19. This covers a critical period for fish, and most of the fall recreation season.

Groundwater monitoring and trigger values for arsenic

At the Missoula Water Quality Advisory Council meeting, Mountain Water and some individuals made some reasonable recommendations regarding additional wells and the trigger value for arsenic in groundwater. Several of these recommendations we endorse. For example, it appears it would be beneficial to include an additional well or two somewhere west-southwest of wells 922 and 923 in order to ensure a groundwater path recently identified in modeling is covered. The exact location of this well could be determined through geophysical investigation coupled with a finer-screen modeling. The Missoula City-County Health Dept., CFRTAC and others have suggested additional monitoring well locations. We urge EPA to evaluate these proposals.

We believe a trigger value of 80 percent of the maximum contaminant level (10 ppb for arsenic) is not protective. Moreover, it allows for a significant increase in arsenic over background. It makes more sense to establish a trigger value for individual wells, perhaps some flat percentage over background (but certainly lower than 80 percent), or, determine a level above background that is acceptable for the individual well based on local risk, how long it will take for the concentrations to shrink or how many people use groundwater in the area. Though we don't believe it's likely long-term risk of arsenic contamination from this project will be overly deleterious, we do believe that a little more investment up front in monitoring and management practices that reduce arsenic releases will be important to public confidence in the benefits of remediation.

We appreciate EPA's patience, competence and determination to do the right thing at Milltown. We're very much on the right track. We believe our recommendations – provided if implemented it can be demonstrated they would unduly delay project completion for a significant period -- could benefit public confidence in remediation, while also adding an important increment of protection to the aquatic community and public health.

Sincerely,

Bruce Farling
Executive Director

cc. CFRTAC
Missoula County
Montana FWP
Westslope Chapter TU