From:	Baessler, Jeffrey
To:	roy_smith@blm.gov; Williams, Owen
Cc:	Viehl, Rob
Subject:	RE: Schafer Gulch and Troublesome Creek
Date:	Thursday, September 18, 2008 11:30:50 AM

Roy,

I guess we may need to get the additional information on Matheson so that we can make the correct assumptions. I was thinking that we wouldn't include the area above the reservoir during the winter months when the gates are closed. I suppose we could do two separate analyses - Summer including the area above the reservoir, and winter without the area included. At the meeting last fall, I was led to understand from Bill Thompson that there was absolutely no outflow from the reservoir during the winter months. However, if there is significant seepage, then we should include that water in the analysis. Let's see what additional information Paula and/or Bill can provide us. If they can't give us additional information, then I suppose the field trip would be worthwhile. Do you really think we could get into that area in November? I thought it was fairly remote.

Do you still want to try to meet with Bill Thompson and Gary Bumgarner in September or October or would you rather try to do something in November after the Matheson Gates are closed?

-----Original Message-----
From: roy_smith@blm.gov [mailto:roy_smith@blm.gov]
Sent: Sunday, September 14, 2008 2:36 PM
To: Williams, Owen
Cc: Baessler, Jeffrey; Viehl, Rob
Subject: Schafer Gulch and Troublesome Creek

Owen -

I like your re-analysis of Schafer Gulch using the 99.99% confidence interval. It now fully supports BLM's recommended flows and it will also make the board less likely to ask questions about the existing ISF. Let's go with it.

I'm still troubled by Troublesome Creek - ha ha. I don't like the approach of substracting out all the basin yield above Matheson Reservoir because that is a very large basin and Matheson Reservoir is capable on capturing only a very small percentage of the basin's discharge because of the small size of the reservoir. Even though there aren't good diversion records, I think a thorough discussion of the reservoir's operation with the water commissioner would yield helpful information. I know Bill Thompson hates the idea of instream flows, but you could approach the conversation by simply saying you want to understand better how the reservoir operates.

If Bill Thompson is totally uncooperative, you could make some reasonable "worst case scenario" assumptions, and assume that the reservoir consumes 100% of the volume it stores, and that none of this flow is ever released down the creek. This would be far better than not assuming any input from this basin at all, I think.

Another resource is our hydrologist in Kremmling, Paula Belcher. You might want to give her a call and see what knowledge she has about reservoir operations. Her number is 970-724-3010.

Also, the time may be ripe for a field trip. If they close the reservoir gates in early November, we may actually be able to still get up there and

actually see what happens. Informal reports that I've heard say that with dam seepage, springs, and tributary inflow, the upper reach has flow again not very far downstream from the dam, even when the gates are closed.

From:	roy_smith@blm.gov
To:	Williams, Owen
Cc:	Baessler, Jeffrey; Viehl, Rob
Subject:	Schafer Gulch and Troublesome Creek
Date:	Sunday, September 14, 2008 2:36:26 PM

Owen -

I like your re-analysis of Schafer Gulch using the 99.99% confidence interval. It now fully supports BLM's recommended flows and it will also make the board less likely to ask questions about the existing ISF. Let's go with it.

I'm still troubled by Troublesome Creek - ha ha. I don't like the approach of substracting out all the basin yield above Matheson Reservoir because that is a very large basin and Matheson Reservoir is capable on capturing only a very small percentage of the basin's discharge because of the small size of the reservoir. Even though there aren't good diversion records, I think a thorough discussion of the reservoir's operation with the water commissioner would yield helpful information. I know Bill Thompson hates the idea of instream flows, but you could approach the conversation by simply saying you want to understand better how the reservoir operates.

If Bill Thompson is totally uncooperative, you could make some reasonable "worst case scenario" assumptions, and assume that the reservoir consumes 100% of the volume it stores, and that none of this flow is ever released down the creek. This would be far better than not assuming any input from this basin at all, I think.

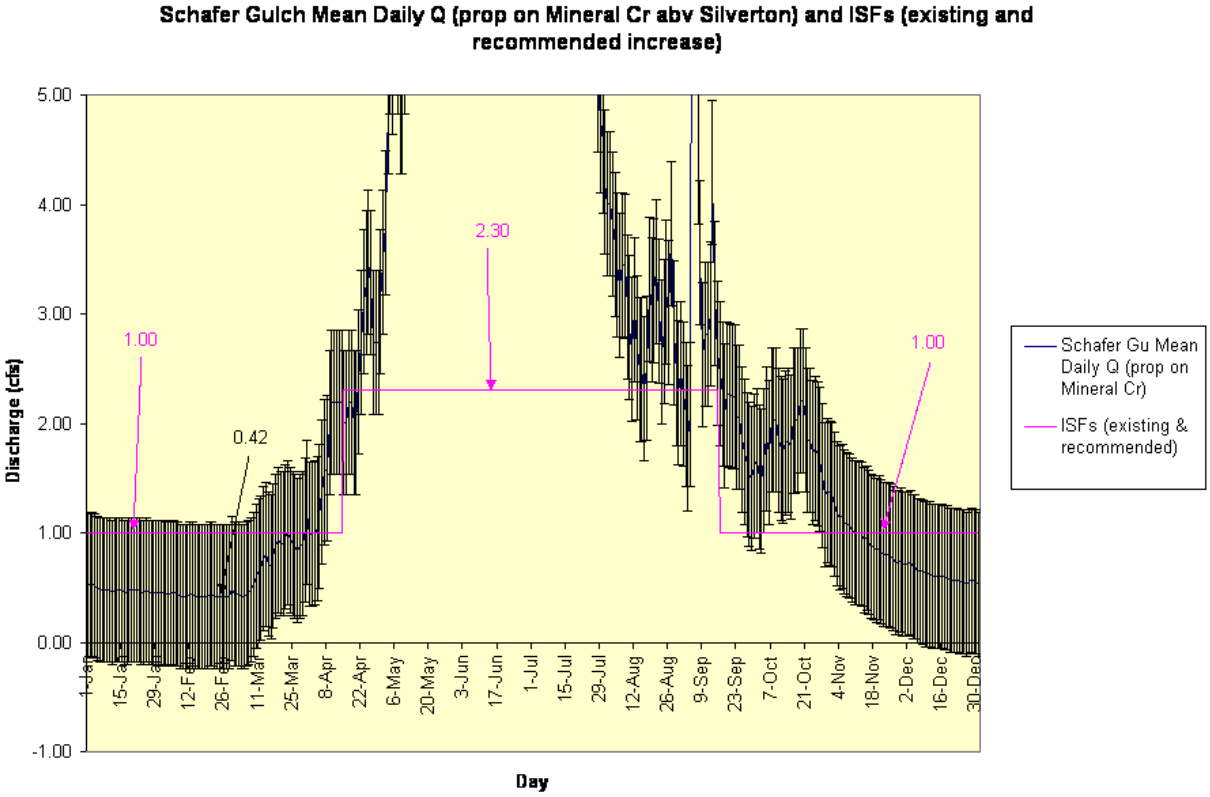
Another resource is our hydrologist in Kremmling, Paula Belcher. You might want to give her a call and see what knowledge she has about reservoir operations. Her number is 970-724-3010.

Also, the time may be ripe for a field trip. If they close the reservoir gates in early November, we may actually be able to still get up there and actually see what happens. Informal reports that I've heard say that with dam seepage, springs, and tributary inflow, the upper reach has flow again not very far downstream from the dam, even when the gates are closed.

From: Williams, Owen
To: "roy_smith@blm.gov"
Cc: Baessler, Jeffrey; Viehl, Rob
Subject: SchaferGuIncFlowAnalysisb.xls
Date: Friday, September 12, 2008 11:36:07 AM

Roy,
I have made the modifications you requested on the three creeks and have prepared draft hydrographs for each. Schafer Gulch is, as you noted, a bit of a dilema. I have tried to revise my hydrograph to better depict the situation and the attached hydrograph is the result. As you can see, I have used the 99.99% confidence interval, which includes the existing cold season ISF and your recommended increase. Considering the nature of the flow data, it seems reasonable to use the higher confidence level to describe the highly variable low flows. As I said, this is a draft and I would, therefore, welcome your comments and those of Jeff and Rob. I think what I'm doing is obvious, but I also think I can make a reasonable case for it. For what it's worth, there you have it. Owen

---



From: Williams, Owen
To: "roy_smith@blm.gov"
Cc: Baessler, Jeffrey; Viehl, Rob
Subject: SchaferGuIncFlowAnalysisb.xls
Date: Friday, September 19, 2008 12:47:34 PM

Roy,
I'm back with Schafer Gulch again. I have to apologize for this, but in rechecking the graphs I found that I had made an error in plotting. I used the full 99.99% confidence interval for the data set and not the vaue prorated to the smaller sized basin. As a result the lowest value upper bound is 0.67 instead of something over 1.0. I'm sorry for messing this up and giving you more work as a result, but once I found the error I figured someone else would, too. Let me know what you think. Owen

---