State of Utah

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DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

Western Watersheds Project
ATTN: Jonathan Ratner
P.O. Box 1160
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Dear Mr. Ratner,

Thank you for your comments on the revised *Draft 2012-14 Integrated Report*. We appreciate the data you have provided us for the IR and your thorough review of the report. In our response below, we provide detailed answers to your specific questions and comments.

You provided an example of SF Sixmile Creek, which, based on your interpretation of our assessment methods, you argue should be listed as impaired based on Rule 1. We agree with you that our assessment methods contain some logical inconsistencies. For instance, you point out that we should have applied Rule 1 since we specify in our methods under the section "E. coli Numeric Criteria"**,** that we apply a five-sample geometric mean of 206 MPN. Our methods further describe the application of Rule 1 and Rule 2. Rule 1 is applied for sample sets of 10 or more samples, while Rule 2 is applied for sample sizes of 5 or more samples. Rule 1 was not applied to SF Sixmile Creek, due to the sample size threshold. However, your assertion that the geomean exceeded the 206 MPN is correct. Also, had you submitted 5 more samples for a total of 10, the result would have likely been that one of the geomeans exceeded the criterion.

This inconsistency is currently under review by DWQ in its ongoing assessment method review and revision. While we agree that your 5 sample geomean exceeds the criterion, we can not list the segment without the requisite 10 samples using our current assessment methods. We do plan to make the requisite revisions to the assessment methods to reconcile our chronic criteria in our standards and its interpretation in the methods. In that way, we can universally apply those revisions to all sites assessed in the 2016 IR rather than just SF Sixmile Creek. We will be issuing a draft of the revised methods in January 2015 and we welcome your review and comments. The data you have submitted on SF Sixmile Creek is recent enough to be considered in our 2016 IR.

Furthermore, we are committed to integrating your data and augmenting it with additional data of our own as we are currently focusing on the Bear River Basin in our Targeted Monitoring through September of 2016. We look forward to working with you on sampling design at these locations as we build datasets for TMDL studies and future assessments.

With respect to your comments on primary and secondary uses, we maintain that a standards

change is required to upgrade a waterbody to primary contact. The UAA process is reserved for situations in which an existing use is removed or replaced with a use that has less protective criteria. In the case of Otter Creek, we feel that a standards review is more appropriate and we welcome you to petition DWQ during our next triennial review of water quality standards. Regarding your comments on turbidity measurements, the 10 NTU change in turbidity contained in our standards refers to an increase over background turbidity. This standard is reserved for situations such as discharge permits and construction projects to demonstrate that no increase in turbidity occurs as a result of those activities. Background conditions are defined through paired, upstream and downstream sampling directly linked to a pollution source. Change in turbidity over time is not an appropriate application of the standard, as surface waters experience wide swings in turbidity seasonally.

Once again, thank you for your comments and constructive criticism of our Integrated Reporting Program. We are always striving to improve and better protect Utah's waters and we encourage you to collaborate with us on the revision of our assessment methods and our 2016 IR.

Sincerely,

James Harris, Manager
Monitoring and Reporting Section