



United States Department of the Interior

U.S. Geological Survey

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To: Brandi Lubliner, RSMP coordinator
Washington State Department of Ecology, Olympia, WA

From: Richard W. Sheibley
Research Hydrologist, Washington Water Science Center, Tacoma, WA

Subject: Second quarter report of USGS activities for RSMP small streams monitoring

Included with this memo are documents required under the Joint Funding Agreement (JFA) between the USGS and Ecology for the RSMP small streams status and trends monitoring. According to the JFA, the USGS is required to submit a short narrative update of the progress of this work during each quarter in 2015 including copies of all field sheets, meter calibration records, and a spreadsheet containing all field measurements in an EIM compatible format. This memo and associated files satisfies the second quarter deliverable A2.1 and A3.1 as stated in the JFA dated January 9th, 2015. This memo will outline the general activities and known problems with sampling that took place this second quarter of 2015.

The USGS has been sampling 34 sites monthly in Whatcom, Skagit, Snohomish, Pierce, Mason, Thurston, Kitsap, Jefferson, and Clallam Counties during the April 1st through June 30th 2015 time period. As expected, an additional site in Skagit County (075-OUGA) was picked up beginning in April. Although the USGS is currently at its original 34 site total outlined in the JFA, two sites in the month of June were not sampled because there was no flow. Those two sites are 033-OUGA and 054-OUGA, both in Clallam County.

Field data collection during the second quarter was, again, highly successful. We have been able to get a flow measurement at every site each month for a total of about 100 miscellaneous discharge measurements. However, of those 100 measurements 14 of them were considered estimates of flow. The reasons why there were estimates of flow had to do with the very low flows at some sites, either the depths were too shallow for our acoustic Doppler velocity meter to measure or the measured velocities were very low (nearly not moving). The estimated flows are identified on the EIM spreadsheet in the "Result Comments" section. On the water quality side, we did not encounter any issues with sampling or collecting field readings. It should be mentioned that the flows at some sites were nearly zero (or in one case estimated to be zero), and were still sampled (with the exception of the previously mentioned 033-OUGA and 054-OUGA).

Lastly, in the May sampling run at site 025-OUGA the wrong stream was accidentally sampled (5/12/15 15:10 sample time). The normal sample location is small tributary that feeds into Skookum Creek and the crew sampled this larger creek instead. This oversight was discovered when comparing the May flow values to those from previous months. As a result, we deleted the

rows in the EIM spreadsheet for this site in May. We do have the data in case anyone would like it. In addition, it should be noted that any data from MEL for this site in May should also be deleted or flagged as the wrong sample location. We reviewed and compared the chemistry results and there were no glaring differences observed but since it wasn't the correct site we are not including it.

In the third quarter, the USGS will continue to monitor the above mentioned 34 sites. In addition, the USGS will begin the habitat assessments of the 58 total sites (including the 34 monitored sites, plus 17 sites that are habitat only, and 7 sites that water quality sampling is done by Skagit and San Juan Counties.

Please feel free to contact me at any time with questions about this quarterly summary or any other project related issues.

Enclosure