



# United States Department of the Interior

U.S. Geological Survey

## USGS Washington Water Science Center

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To: Brandi Lubliner, RSMP coordinator  
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From: Richard W. Sheibley  
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Subject: Third quarter (Q3) 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 third quarter deliverable A2.1 and A3.1 as stated in the JFA dated January 9<sup>th</sup>, 2015. This memo will outline the general activities and known problems with sampling that took place this third quarter of 2015.

The USGS has continued to visit 34 sites monthly in Whatcom, Skagit, Snohomish, Pierce, Mason, Thurston, Kitsap, Jefferson, and Clallam Counties during the July 1<sup>st</sup> through September 30<sup>th</sup> 2015 time period. Two sites stopped flowing in late Q2 and continued to be dry in Q3, these were 033-OUGA and 054-OUGA. However, 033-OUGA started to flow again and was sampled in September. Due to the extreme low flows and drought conditions in the region additional sites stopped flowing during Q3, 075-OUGA (July), 022-OUGA (August, stagnant) and 056-OUGA (August). These three sites were not flowing in September as well. Lastly, 032-OUGA had been estimated as zero flow and sampled from July through August, although it was stagnant and should not have been sampled. As a result, we did not sample this site in September. As of the writing of this memo, we have begun our October water quality sampling and some of these no flow sites are flowing again, so we believe the next few months we will be back to collecting a full set of 34 samples a month.

We have been able to get a flow measurement at most sites each month for a total of about 67 miscellaneous discharge measurements. There were 22 cases where flow was not measureable and estimates of were made. 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. There is one instance of an estimated flow that was due to equipment malfunction, which was for 026-OUGA on July 16. We did not encounter any issues with collecting field readings.

During the third quarter the USGS also began the WHM sampling at 64 sites (58 from the main list plus 6 backups). In Q3, USGS visited most of the sites and completed WHM samples at 46 sites. There were a total of 16 sites that were dropped because there was no flow, the site wasn't suitable, we did not get permission from the landowner, flow was stagnant, or in one case, the water was too deep to wade. In early Q4, the USGS will finish 2 sites that recently started to flow and aid King County on 3 sites where they did not get permission to sample yet. A detailed summary of all WHM activities will be provided within the next few weeks, prior to the Q4 deliverable in order for the RSMP coordinator to keep track of what was done.

In the fourth and final quarter, the USGS will continue to monitor monthly water quality at the 34 sites, as well as finishing the remainder of the WHM sampling.

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

Enclosures