

2012 Mad River Watch Report

Summary

The 2012 Mad River Watch program sampled phosphorus, turbidity and *E.coli* on six dates as planned. Through the LaRosa partnership, samples from 18 sites were analyzed for phosphorus and turbidity on each of the six dates.

The Friends of the Mad River lab analyzed E.coli samples from a total of 36 sites (using the IDEXX QuantiTray method), and collected other information on each sampling date including pH, temperature and flow (data from USGS gauge in Moretown).

Phosphorus and Turbidity

Data collected in 2008, 2009, 2010 and 2011 showed consistently higher phosphorus levels in Folsom Brook (site 10). Levels in 2012 seem to continue this trend and were high relative to other tributaries under all flow conditions sampled.

In 2011, the data show levels of phosphorus and turbidity in High Bridge Brook, which are (consistently) 6-10 times higher than in all other tributaries on 5 out of 6 sampling dates (when water conditions were not rising). These levels could likely be attributed to a cloud burst and related ongoing road and bed erosion in the area. This trend of elevated TP and Turbidity levels did not seem to continue in 2012 despite additional damage during Irene.

Quality Control

- The average relative percent difference (RPD) of phosphorus field duplicate samples for the six sampling dates was 7%, which is within the estimated range of precision specified in the QAPP (less than or equal to 30% RPD).
- The average relative percent difference (RPD) of turbidity field duplicate samples for the six sampling dates was 17%, which is just above the estimated range of precision specified in the QAPP (less than or equal to 15% RPD).
- Data completeness for the 2010 season is 100%

Visual Surveys

Visual surveys were completed by interns during the summer of 2012 in the following tributaries: High Bridge Brook, Shepard Brook, Stetson Brook and Lincoln Brook. Results (data collected and photos) can be found online at: <http://goo.gl/maps/8XOI>