Hinkson Creek CAM Science Team
Invertebrate Sampling – Status and Next Events
May 25, 2016

The data and analysis:

1. Data are those shared by Dave Michaelson in the DNR annual report of results and at a recent stakeholder meeting. I used only the data Environmental Services Program proposed to use.
2. I ran statistical analyses on these data.
3. Remember that 16 is the magic number that indicates the site appears to be fully supporting of aquatic life. If you look to the far right, I have calculated the percentage of the samples that are 16 or above at each of the 11 sites for all the date (Overall), for the 2012-2014 data (Recent) and the 2001-2006 data (Old).
4. The heavy line between Sites 4 and 3.5 is mine. Note that it separates sections of the creek that have very different results. There appears to be a decided statistical break in the data as indicated on the spreadsheet. To the bottom right, I have summed all the data for above and below that heavy line.
5. Note that, if enough data exist, the department's protocol suggests using data collected within the last 7 years.
6. Some may remember that a stream does not have to score 16 or more 100% all of the time to be considered fully supporting of aquatic life. The department will compare these results to the reference stream. However, when data are sparse, the percent that have to be 16 or above for a stream to be considered fully supporting of aquatic life is 75%.
7. This is my main scientific point of the day.

Let's now talk what these data indicate and what we may wish to consider:

1. The Science team was preparing to go back to it conceptual model to determine what critical questions need our attention. I suspect that the science team will want to examine the Physical Habitat Assessment data to see if they indicate what might explain this break. Alternatively, can we determine, perhaps with help from the action team, whether there are other changes that are occurring there or whether a tributary is contributing something that might explain the difference?
2. The 2015 data are being analyzed and should be available about September.
3. In October of 2016, the department will issue the call for data to be used in creating the 2018 305 (b) list that summarizes water quality across the state. This analysis happens every two years. The 303(d) list is a sub-set of that list with the impaired waters. This deadline is set so that we do not have to continually have to redo analyses as new data arrive. This means that no 2016 data are likely to be available for use this cycle.
4. The data collected by Dave and his colleagues at ESP will automatically be used; this group need not do anything on that point.
5. To make the strongest case that a stream (or part of a stream) should be removed from the list of impaired stream two things are generally required. Data that show that water quality is sufficiently high and reasons for the improved water quality. I would note that Erin has presented a fairly significant list of projects at past meetings that would contribute to meeting the second of these two criteria.
6. The Hinkson agreement specifies that the department is to use the same water quality criteria on Hinkson Creek as it does elsewhere.
7. The agreement, however, contains a specific encouragement to this group to make its thoughts known to the department as it prepares the 305 (b) list every two years.
8. The times to offer comments are either during the time after October 2016 when all the data are in and once the department's draft 305 (b) list is sent out for public comment. Nothing precludes this group from commenting at each of those opportunities.
9. Briefing on 2015 data (timing); analysis presentation; consider what else this group might want to include in its comments (whenever it chooses to offer those comments).

Questions, comments, suggestions?