

Below are the main points/action items I noted from the August 13, 2013 Model Work Session:

Upcoming Model Work Session Schedule

- No meeting on August 20 due to other schedule conflicts
- Next weekly meeting August 27, 2013 10 a.m. @ DEQ

Decision Points (all of these decisions are “final” pending need to further reevaluate)

Freshwater Trust provided their shade data that was analyzed for the City of Boise. Additionally, Mark Shumar provided his professional opinion for interpretation of the data and his own experience on the LBR. Troy Smith created a hybrid of the two, which resulted in the following shading (when leaves are present). This is currently in the AQUATOX model unless new information becomes available:

- Segment 1 = 5 percent
- Segment 2 = 10 percent
- Segment 3, 4, 5, 6, 7 = 15 percent
- Segment 8 = 10 percent
- Segment 9, 10, 11, 12, 13 = 5 percent

Action Item Updates

- All
 - A. DEQ contract to fund Jonathan Clough and Dick Park for approximately 60 total hours to consult on the AQUATOX modeling effort is in place.
 - B. Review the model documentation, Dick Park’s previous memo, and substrate data collected by DEQ to better understand how input/output should best be interpreted and/or normalized to represent actual conditions.
- Troy
 - A. Troy and Darcy to summarize and provide run/riffle/pool, substrate, and other data for Diversion to Star – will strive to present by August 27 meeting.
 - B. Check with Alex about how to resolve groundwater questions in the model. Need to look at the mass balance data for flows and quality – may need a seasonal adjustment.
 - C. Write periphyton-substrate problem statement for Dick and Jonathan to respond. Write-up to include questions on how to include newest substrate and periphyton visual assessment data, adjustment of algal groups needed, etc. for calibration. How to use USGS periphyton data in the model and interpret relative to model output. Determine if Dick or Jonathan can participate in August 27 meeting to discuss shed light on proper analyses.
- Michael/Tom
 - A. Continuing to update Indian Creek data and groundwater component based on Alex’s input and will repost input files on the ftp site for evaluation when ready.
 - B. Re-ran the existing condition scenarios to compare output to observed data, based on updated information provided by Dick Park (e.g. adjusting f-crit and other parameters).
- Darcy
 - A. Continuing to work on the morphometry and looking more closely at the velocity components of the model. Currently, trying to rectify modeled flows vs. data – will present at August 27 meeting.

- Ben et al.
 - A. Make sure that we have a calibration “fiesta” period in which everyone has a shot at thoroughly vetting the model calibration and raising questions/issues.
 - B. Visually display historical periphyton values vs. model output to get a sense of how model may be performing...Darcy suggested that a periphyton/flow/load duration curve could be useful, as well.

- Jack ~~(although he was unable to attend the meeting, his items from the 6/11 meeting were kept on the agenda so that they could be fully addressed)~~ – These items will be placed aside pending the results and use of the LBR data collected on 6/20 and 6/21 and 8/9 and 8/12.
 - A. ~~Frame/outline 3 questions related to the interpretation of pebble count and periphyton data, model results, and targets (roughly paraphrased below):~~
 1. ~~How to best characterize riffles/runs/pools on the LBR for use in the model?~~
 - ~~Some methods discussed by the group included algorithm review, sensitivity analyses, field documentation, remote sensing, etc.~~
 2. ~~How to apply the USGS periphyton data collection to riffles vs. runs in the model and interpret results?~~
 - ~~Alex’s and Dick’s professional opinions were interpreted as believing periphyton growth would likely be similar in riffles and runs, given the appropriate substrate. However, it was also identified that other factors could come into play such as turbidity, water velocity, water depth, etc.~~
 3. ~~Ensuring that the target and data transformation procedures are clear, aligned, and appropriate.~~
 - ~~It was suggested to deal with questions 1 and 2 first, which may help formulate how question 3 is addressed.~~

As always, please let me know what I missed or misinterpreted and thanks for your participation today! Cheers,
-Troy

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