

Model Run Subcommittee Meeting Notes

2/1/2018

Attendees: Jim Phillips, Amy Trujillo, Carl Pendleton, Greg Loomis, Pat McMahon, Patti Lousen, Brett Stevenson, Jennifer Sukow, Heather Dawson, Peter Anderson, Wendy Pabich, Keri York

Updates and Comments from Jennifer Sukow (IDWR)

- The updated Big Wood River groundwater flow model version 1.1, which incorporates transient data, is expected to be ready by the next MTAC (Model Technical Advisory Committee) meeting in May, or soon thereafter. Model run requests should be submitted by April to enable IDWR review before this meeting.
- IDWR is planning to run the 100% curtailment scenario with the model version 1.1. once it is calibrated
- IDWR has offered to run two additional scenarios, and the WRWC can work with IDWR to develop these scenarios
- The WRWC will want to work on well-formulated requests by May, if not sooner. These requests will be run through Sean Vincent; Brian Patton will also likely review to determine if appropriate. The MTAC will also likely review these requests/scenarios
- The requests should be in the public interest, not individual users. They should be framed around general water management activities that would help support a settlement agreement. In the ESPA, IDWR ran scenarios for 10-12 defined recharge sites to evaluate retention time in the aquifer
- This subcommittee can work with IDWR to refine requests, there is no specific format. We will need to work with IDWR to define assumptions and questions.
- Probably not an option to run a scenario and the re-run based on results, but could put multiple actions or recharge sites into one request. Jennifer suggested we could specify 5-8 sites as one request.
- It will be important to define the conditions over which the request will take place; ie. Over the entire data set or worst year (2007)
- Need to consider timing aspects, when and where water would be available realistically, and what actions are realistic
- Jennifer is not completely familiar with the management actions and scenarios that WRWC members have been considering
- Information from model run scenarios could be used by consultants to further refine questions
- With version 1.1, IDWR is working on a separate calibration target in the losing reach below Glenadale, so that representation of the river stage in that area can be more accurate

Questions and Discussion

- Peter asked if we can evaluate xeriscaping with the new Best Management Practices guide that the cities and counties have agreed to; can the model help evaluate impacts to the river if a certain number of acres are xeriscaped?
- Jennifer commented "yes" that if existing turf is being converted to xeriscape and the locations are known, then the model could show impacts to the river. Because this is taking place in the narrower part of the valley, there is less of an issue with non-linearity and may be able to scale easier

- Maybe the model could be run at 100% turf being converted to xeriscape and then scale back to determine achievable acres and target locations
- With new developments, we would need to know the current land use and look at the difference between new turf or xeriscape to determine how much xeriscape would curb water use

- Greg asked if a model scenario could include both curtailment and recharge parameters
- Jennifer commented “yes” as if both actions were included in a coordinated management proposal; however the results would be of the combined impact and would need separate model runs to determine individual impact

- Wendy asked about interactive components in the model and difficulty in understanding the full story if management actions are run in separate scenarios
- Jennifer commented that, for each model scenario, we would need to refine the assumptions. For example, the Wood River Valley model is non-linear (there are temporal and geographic impacts), so we can’t necessarily make multiplicative assumptions. The ESPA model is much more linear, and if know amount of recharge and site, you can multiple and know the impact. That isn’t necessarily possible here.
- In a defined area, the output of the model can be used to determine what the impact of different decreases in consumptive use

- Patti asked about the impacts of fallowing
- Jennifer commented that model inputs are specific positive or negative stressors on the aquifer in a certain area, so fallowing might have a similar result as recharge, as they are both positive stressors. The activity doesn’t matter as much as the stress amount, timing, and location.

- Patti commented that the purpose of this process and doing the model runs is not to compromise the future legal positioning of any parties involved in water calls
- Brett stated that if the objective of these model runs is to help resolve the water call and develop a settlement, then all of the major calling parties should be part of this subcommittee and supportive of the requests. It was noted that the Little Wood wasn’t represented, but Rod would be invited to future meetings.

- Carl is encouraged that IDWR will run the full curtailment scenario with Model 1.1. One of the model run scenarios should be focused on how to curtail and/or recharge to meet a lower Silver Creek flow target. We should be looking at water management solutions for SVGWD and GGWD, maybe look at specific wells and locations of curtailment.

- Brett indicated that SVGWD has been working on developing recharge in the Bellevue triangle so that more water is delivered to the Little Wood.
- Brett asked about scenarios that involved late season recharge and recharge in the upper Bellevue triangle - how those activities would impact future years’ water availability and late season flows

- Brett asked about any requests or needs for model run scenarios from Big or Little Wood water users, and Jennifer indicated that the model doesn't include their delivery areas
- Carl commented that injection wells are run in Oakley (in ESPA), and asked if the confined aquifer could be recharged by injection wells vs surface recharge pits; he also asked about the longevity of surface recharge programs and is concerned that we may still see decreases in the confined aquifer
- Jennifer indicated that a model run scenario can put a positive stress on layer 3 (to model impacts of injection wells) but we would need to look at the geology of the Bellevue triangle, well capacity, and if injection wells are realistic
- The confining layer has a limited extent, and we may consider recharge North of the confining layer that could sustain head pressure in the confined aquifer.
- Jennifer again emphasized being realistic in our requests that the management actions could be accomplished (ex: water for recharge) before requesting a model run.

Next meeting of subcommittee: Feb 27 at 12:15 p.m. at WRLT. Sack lunches welcome. Please send materials prior so that they can be shared and also used at the Feb 27th meeting. This meeting follows the WRWC that starts at 10 a.m. at TNC.