

Minutes

Wood River Water Collaborative Meeting
Date and Time: Thursday, October 29 at 10 am
Location: Virtual

Attendees: Keri York, Kendra Kaiser (BSU), Carl Pendleton, Chris Johnson, Cooper Brossy, Grant Loomis, Greg Loomis, John Wright, Justin Stevenson, Kira Finkler, Peter Anderson, Sarah Lien, Sharon Lee, Ryan Santo, Kevin Lakey, Bill Hazen, Sally Toone, Michelle Stennett, Muffy Davis, Brian Yaeger, Larry Schoen, Hattie Zobott (JUB engineers), others (sorry if I missed you!)

Surface Water Prediction Tool Research Update – Kendra Kaiser, BSU

1. Modeling Objectives
 - a. Predicting streamflow volume and timing at four points
 - b. In order to do so, this includes predicting temperature, streamflow volume, and timing of streamflow
 - c. Predict curtailment for three main priority right dates
2. Modeling workflow
 - a. Data automation pulls in public data automatically and harmonizes (restructures) so it is useable in the model – this data is available for 10 snotel sites, 4 USGS streamflow gauges, and Agrimet stations in Picabo and Fairfield
 - b. Once the model is created and run, it will look back at previous years and finds an ‘analog year’ to predict streamflow for the current year
 - c. It will also calculate exceedance and accuracy
3. Restructuring and sorting data have been the big tasks so far-
4. Landsat snow cover data was explored
 - a. Automated retrieval for this basin in Google earth from 1984 – 2013
 - b. In winter months, very few images that are cloud free so additional modeling would be required in order to use this data; maybe in the future a BSU grad student could look into
5. Temperature model
 - a. Temperature data imported from snotel sites
 - b. May need individual temperature models for subbasins
 - c. Results of temperature modeling are used in streamflow model
6. Streamflow volume
 - a. Look at R^2 values to see how well the model predictions fit the observed data
 - b. Anticipate some variability in statistical models
 - c. For the Big Wood at Hailey and Stanton, R^2 values are representative of good model fit
 - d. At Silver Creek and Camas, need some modification of model to get better fit
 - i. May need to adjust Silver Creek to account for spring input
7. Streamflow timing
 - a. There are several ways to evaluate streamflow timing; usually based on winter baseflow
 - b. The Big Wood models resulted in good fit for center of mass method for streamflow timing
8. Model run reports
 - a. Reports can be generated and results can be made available via the WRWC website

- b. We can further develop website tools so that others can run reports – maybe a use of BOR funds?
 - c. Kendra will produce draft model reports, and we can suggest different outputs that would be useful; can be exported as html or pdf
9. Next steps
- a. Incorporate diversion data and information about Silver Creek influences
 - b. Look at Camas and Silver Creek models to increase fit

Questions

1. Michelle asked about flows in the headwater of the Big Wood and if we can identify where those flows start to decrease
 - a. Headwater flows provide great information, but usually there is a lack of data to use in a model
 - b. We may be able to incorporate qualitative information in the future
 - c. The first gauge the Collaborative asked for predictions is the Big Wood at Hailey, so anything above that will be difficult to predict
2. Larry asked why Sportsman's gauge on Silver Creek was chosen because it is above any input from the Little Wood
 - a. This led to a discussion on which inputs are important to Silver Creek, which was further discussed during the Diversion tour on 11/2/20
 - b. Silver Creek is fed by groundwater, so groundwater levels and baseline groundwater flows should be incorporated into surface flows; related to groundwater use
3. Larry asked about including level or demand or use on system
 - a. Diversion data can be a measure of use; maybe use ET data
 - b. Maybe we can look at a separate model for predicted diversions and volumes
4. Cooper asked if Kendra has run into any challenges that might prevent model availability for this spring
 - a. Kendra asked the Collaborative for information about the Little Wood because Sportsman's gauge was chosen in the RFP, but should we consider a lower gauge (Station 10?)
 - b. Cooper suggested that the Little Wood snotel sites would not be useful in the Silver Creek model because that snowmelt does not go into Silver Creek
 - c. Kevin suggested that Little Wood data would have little relationship to curtailment, maybe more in bigger water years; Station 10 on the Little Wood would be hard to predict because of other influences not currently considered in the model
5. Questions about using groundwater well data
 - a. Kevin suggested that using groundwater levels may be a better predictor than sportsman's gauge
 - b. Ryan said that groundwater well data has limited availability; only from 2012 on
 - c. Kendra will look at the well data that Greg and Ryan have compiled and Alan Wylie's data

Groundwater Districts Management Plan and Groundwater Management Area Advisory Committee – Justin Stevenson, Cooper Brossy, Larry Schoen

1. Management Plan update by Justin
 - a. South Valley / Galena GWDs submitted the management plan to IDWR in August; BWLWWUA submitted their own document
 - b. Spackman requested more information and proposed Oct. 7th meeting with all parties

- c. Spackman formed a Groundwater Management Area advisory committee – no voting, will make recommendations to IDWR on resolution; includes Camas
 - d. Committee meetings will be facilitated by IDWR and locations will change
 - e. IDWR will make final decisions
- 2. Cooper suggested that Spackman recognizes the need for the parties to gather to make progress
 - a. The hydrologists have been meeting at least monthly and addressing technical questions
 - b. Spackman had been sending letters to advisory committee applicants to appoint members; first meeting is on Nov. 4th
- 3. Larry stated that a groundwater management area was formed in 1990 per state statute the encompasses most of Basin 37
 - a. A more recent order was formed stating that surface and groundwater would be managed conjunctively; enforcement of is not unique to basin 37
 - b. Spackman expects results from the advisory committee; meetings are open to the public
- 4. Questions and comments
 - a. There are representatives from municipalities and public water resources on the advisory committee – Brian Yaeger (Hailey)
 - b. Discussion about how the advisory committee was going to interact with the WRWC, and how the WRWC might function in the future. At the next meeting, Peter will be reviewing different collaborative structures and incorporation options to see if we want to change the structure of the WRWC.

Station 10 Surface Water Flows during Summer 2020 – Kevin Lakey

- 1. At Station 10 on the Little Wood (2-3 miles upstream of Richfield), really low flows in August during peak demand; similar to 2007 (delivery records attached)
 - a. There were about 7 cfs of water, at that time only Silver Creek contributes
 - b. Not a lot of surface water being delivered above; no options to curtail out of Magic
 - c. Question about water going into wetlands at the Hwy 93/26 project site
 - i. Probably some water going into the streambanks at the wetlands, when really low maybe losing a little water but not a lot
 - d. Concern about groundwater still being used and how that was affecting the system
 - e. There were a few irrigators that voluntarily shut off groundwater pumping due to grain harvest (water was not being used)
 - i. Picabo Livestock stopped using 10 cfs
 - ii. Others also stopped using groundwater
 - f. Once some groundwater ceased pumping, flows at Station 10 went back up
 - g. Example of what happens in low water years and how fast the system responds
- 2. In 2008, another very low water year, Baldy was using snowmaking and the Big Wood went dry at Glendale; when snowmaking stopped, the river started flowing at Glendale
- 3. 2020 (drier than 2007) and could not deliver water below the Bypass canal
 - a. Kevin may have had to curtail water delivery to golf courses to get irrigation water to the Heart Rock Ranch
 - b. Hagey's agreed not to call on 1881 decrees so golf courses could continue irrigating

Bellevue Triangle Diversion Tour – Monday, Nov. 2nd – meet at 9 am at Timmerman rest area

Next Meeting: December 10 at 10 am; main topic is Peter Anderson reviewing collaborative structure options