

Henry's Fork Watershed Council

Tuesday, May 8th, 2018

Participants began registering at 8 a.m. at the Henry's Fork Foundation Community Campus in Ashton.

Brandon Hoffner, of the Henry's Fork Foundation (HFF), called the meeting to order. Brandon thanked everyone for traveling to Ashton. Participants introduced themselves. Brandon explained that the Watershed Council began in 1993 in an effort to build trust and to find a way to collaborate, solve problems, and open lines of communications among the various stakeholders in the watershed. Brandon called for two minutes of silence, noting that it has been a tradition of the council at every meeting since its inception. Brandon then opened the meeting up to any announcements or comments.

Community Building

Brandon Hoffner, HFF, announced that June 14th from 4-7pm would be the Grand Opening for this building.

Jerry Nielsen, HFF Board, shared that he has been volunteering as part of a carcass survey and has seen that migration is happening. He indicated that from here [Ashton] to the state line, they have been pulling 3-4 carcasses per day off the road.

Amy Verbeten, FTR, shared that on August 1st the Teton County Farm Bureau and Friends of the Teton River will be conducting a farm tour. An agenda will be shared with Watershed Council participants.

Brandon, HFF, also shared that if any groups are in need of a meeting space, the conference room in the new HFF Community Campus is available.

Upper Snake River operations

Brian Stevens, U.S. Bureau of Reclamation

Currently the Upper Snake Reservoir system is at 78% of capacity and filling slowly. October-March unregulated flows upstream of Jackson and Palisades were among the highest in a 109-year period of record. There is still quite a bit of snow yet to melt at the higher elevations, but there is less snow at mid-elevations than at this time last year. Snow has completely melted from some SnoTel sites, while nearly all of this year's peak accumulation remains on the ground at others. Current forecast of May 1-July 31 unregulated streamflow upstream of Heise is 3.25 million ac-ft (114% of average), compared with 4.56 million ac-ft last year. Required flood control space in Jackson and Palisades right now is 835,000 ac-ft, and actual space is just a little higher than this. Both reservoirs are now storing water and will continue to increase along the flood-control curves until filling in mid-June. Peak outflow from Palisades Reservoir is projected

to be around 18,000 cfs. American Falls Reservoir will fill within the next week and will be held constant until inflow drops below what is needed to meet irrigation demand downstream.

Now that ice has melted off Island Park Reservoir, the rubber dam has been inflated, and outflow will be reduced for about 10 days to fill the reservoir. Once full, outflow will match inflow to hold the reservoir constant until irrigation delivery is needed. The reduced outflow will help minimize flooding in the Henry's Fork at Rexburg, which is expected to reach flood stage later this week.

Henry's Fork water supply and predictions for summer 2018

Rob Van Kirk, Henry's Fork Foundation

Cool temperatures through the middle of April capped a nine-week run of average to below-average temperatures, allowing snow to continue to accumulate until the middle of the month. Snow-water-equivalent (SWE) over the whole watershed peaked on April 18, 8 days later than average. Peak SWE accumulation was 117% of average, and as of May 8, 77% of this year's peak SWE remains on the ground, compared with an average of 83%. However, because 2018's peak started out higher than average, current SWE is still 107% of average despite high melt rates over the past week. Natural streamflow was a little above average all winter and didn't really start to reflect snowmelt until late April, unlike last year, when substantial runoff began in early March.

Last year I developed a numerical computer model to simulate water supply and reservoir operations in the Henry's Fork watershed. I made several refinements this year to make it more realistic and flexible. One of the new components I added was a variable low-flow target in the Henry's Fork at St. Anthony.

Overall, the model predicts streamflow to be above average in the upper Henry's Fork (upstream of Ashton) and quite a bit higher than last year. Fall River will contribute above-average flow but not nearly as much as last year. Flow in Teton River will be near average. Runoff timing will be a few days earlier than average across the board, a little later than last year in the upper Henry's Fork and a little earlier in Fall River and Teton River. The end result is that natural flow in the Teton River will fall below average in the middle of summer, so more water will need to be delivered from the Henry's Fork through the Crosscut Canal than in 2017. This will require more delivery out of Island Park Reservoir than last year, at the same St. Anthony flow target of 1,000 cfs that was used in 2017. Outflow from Island Park will probably be in the range of 800-1000 cfs for most of July and August, about 200 cfs more than in 2017. Higher outflow this year than in 2017 will be offset by higher inflow, resulting in reservoir draft that follows the 2017 curve very closely, ending up at around 110,000 ac-ft (81% full). At worst under the 1,000-cfs St. Anthony target, the reservoir will end up very close to average, a little less than 60,000 ac-ft (44% full). Under the very wettest scenarios, no storage will be needed.

Results of varying the St. Anthony flow target show that reservoir carryover decreases as the St. Anthony flow target increases, and the curve becomes steeper as the St. Anthony flow target increases. Predicted reservoir carryover ranges from 120,000 ac-ft (89% of capacity) at a target of 800 cfs to 100,000 ac-ft (74% of capacity) at a flow target of 1,200 cfs. Under all St. Anthony

targets between 800 cfs and 1,200 cfs, the wettest scenarios still allow the possibility that no reservoir storage is needed. On the bottom end, the effect of the St. Anthony target is even more pronounced; the bottom of the 90% prediction interval falls from 80,000 ac-ft to 20,000 ac-ft as the St. Anthony target increases from 800 cfs to 1,200 cfs. This is because above-average flow at St. Anthony is inconsistent with below-average supply and above-average irrigation demand, requiring disproportionately high storage delivery to maintain. Winter flow in 2018-2019 also decreases as the St. Anthony flow target increases. Winter outflow is predicted to be lower than that in 2017-2018 but still above average. However, under the worst-case scenario, winter flow drops from around 270 cfs to 100 cfs as the St. Anthony target increases from 800 cfs to 1,200 cfs. However, these values are based on constant outflow from October 1 through March 31. In practice, outflow is reduced during October and November to store more water when temperatures are warmer and aquatic plants provide fish habitat. This allows winter outflow to be higher. If outflow is reduced to 100 cfs during October and November, winter flow improves by about 80 cfs at the 800-cfs St. Anthony target, but the improvement possible by decreasing flows during October and November shrinks to 0 at a St. Anthony target of 1,200 cfs.

Now that we have quantified how sensitive reservoir carryover and winter flow are to the St. Anthony target, HFF will be putting a large amount of effort over the next four years into studying relationships among streamflow at St. Anthony, streamflow in the reach between St. Anthony and the Parker-Salem highway, groundwater return flows from irrigation seepage and from managed recharge in the lower watershed, water temperatures, and trout habitat availability. The goal will be to develop physically and biologically based flow targets at St. Anthony—as well as managed aquifer recharge objectives—that maximize benefits to the fishery in the lower Henry's Fork while minimizing delivery of storage from Island Park.

Ora Bridge Construction Update

Brandon Harris, Fremont County

The environment mitigation has been approved and Fremont County is waiting on the Department of Lands to sign off on the right of way. Brandon has been told that when Fremont County gets the ROW certificate, the project will go out to bid. The county is working on the new parking lot so there will be no disruption for fishing.

The South Fork Initiative

Brady Taylor and Bryce Oldemeyer, Henry's Fork Foundation

The South Fork Initiative (SFI) is a project within the Henry's Fork Foundation (HFF) that is focused on conserving, protecting, and restoring the unique fisheries, wildlife, and aesthetic qualities of the South Fork Snake River. The SFI started a grassroots movement of concerned citizens and stakeholders that enjoy the South Fork Snake and wanted to build an organization to increase research and monitoring within the South Fork Snake watershed. To minimize the immense effort that goes into building such an organization from scratch, these citizens and stakeholders approached the HFF and proposed that the HFF expand their research, environmental monitoring, and scientific/technical expertise to the South Fork Snake River.

The Henry's Fork River is not managed in a vacuum and what happens on the South Fork Snake can directly impact the Henry's Fork fishery. As such, a resolution was passed through the HFF Board allowing for expanded research and collaboration within the South Fork Snake, so long as SFI funding is brought forward from South Fork Snake specific grants and fundraising.

Proposed initial SFI projects include:

- Creating a South Fork Snake daily water report similar to the water report Dr. Rob Van Kirk disseminates via email for the Henry's Fork River.
- Conduct a collaborative assessment of the Yellowstone Cutthroat Trout "three prong management approach" currently being implemented on the South Fork Snake.
- Increase the spread of information regarding flow changes, public meetings, etc. through a variety of media outlets.
- Design long-term invertebrate and water quality/quantity monitoring programs.
- Collaborate with other agencies, NGOs, and stakeholders to achieve SFI goals.

The HFF approaches the SFI as a great opportunity for conjunctive conservation and collaboration between the two river systems and the entities working within these watersheds.

Community Building and Wrap-Up

Aaron Dalling, FMID, asked for one minute of silence to wrap-up the meeting before closing comments and announcements.

Idaho Dept. of Fish and Game announced their Youth Skills Day coming up May 19th. Kids 6-16 can learn fly-fishing, bow shooting, and other skills in the hope that it will get more people interested in the outdoors. Event runs from 9 AM – 2 PM.

Dave Weskamp, TNC, announced that the Flat Ranch will be hosting their summer speaker series again. Dates are forthcoming.

Rob Van Kirk, HFF, announced that HFF has also started a weekly summer seminar series on Thursdays starting at 11 AM. First seminar will be held June 21st at the HFF Community Campus.

Dan Garren, IDFG, announced that there will be an open house at the Henry's Lake fish hatchery to welcome the new biologist there. The open house will be the Friday before Memorial Day from 4-7 pm.