Henry's Fork Watershed Council Meeting Minutes

December 8, 2020

Introductions and Community Building

In the third and final meeting of the Henry's Fork Watershed Council's three-part annual conference series, presentations cover projects in the upper Henry's Fork. Jamie Laatsch, co-facilitator from the Henry's Fork Foundation (HFF) welcomed everyone to the virtual meeting via Zoom. The group went around with introductions and then called for a moment of silence before opening for announcements and community building.

After a moment of silence, the meeting was opened for announcements or comments.

Rob Van Kirk, Henry's Fork Foundation (HFF) shared the passing of an early Henry's Fork Watershed Council participant, Lloyd Bradshaw. Lloyd had a 30-year career with the Natural Resource Conservation Service (NRCS) and was instrumental in the Sheridan Creek project. Lloyd was someone who really made things happen in the first years of the Watershed Council.

Understanding the movement and habitat use of Yellowstone Cutthroat Trout and Utah Chub in Henrys Lake

Jenn Vincent, Idaho Department of Fish and Game

This research was conducted by a graduate student, part of the Idaho Cooperative Fish and Wildlife Unit through University of Idaho. The research is looking at movement and habitat use of Yellowstone Cutthroat trout (YCT) and Utah Chub in Henrys Lake. There are 14 subspecies of YCT and their distribution has been greatly reduced. Henrys Lake is a trophy trout fishery and a lot of conservation efforts have been put in place there through in-stream habitat improvements, fish screens, shored up riparian habitat on the shore on many tributaries, riparian fences, and hatchery supplementation. Utah Chub was first documented in Henrys Lake in 1993 through netting projects. Over the last number of years, catch rates have been decreasing of trout in the lake, but there have been great catch rates in the last year or so. Growth and body condition of YCT had been decreasing, so Idaho Department of Fish and Game (IDFG) decided to look more into the interaction with Utah Chub. Theories included environmental characteristics, like temperature in the summer and oxygen in the winter. They thought perhaps the YCT population may be just too high. They wanted to take an objective look at how population dynamics have changed over the past years for the two species and to describe movement and habitat use for both.

The graduate student used historic data and gill net surveys, and collected structures from the fish (physiological data). She also looked at how catch rates, ages, and body growth, etc. have changed over the years. They also conducted electrofishing in 2019 and 2020. They surgically implanted radio tags and then were able to track fish. They implanted 94 YCT and 95 Utah Chub

over two years then looked at where they moved and habitat conditions (i.e., why would they want to go into that a specific tributary?). Utah Chub in June are found on the edges of the lake and YCT are on the edges and center of lake. In July, chub can still be found in the outlet, but are moving into the middle of the lake. YCT are more spread out in July. In August, chubs are moving into the lake itself. In the fall, they move back to the edges. Both species tend to hang out in warmer water throughout the summer, because Henrys Lake has low depths and temperature is what it is; as summer progresses the lake gets warmer and the fish don't have many hiding places to get away from warm temperatures. The last two years haven't had the warm temperatures experienced in years prior. Both species seem to prefer locations related to habitat, higher oxygen and lower temperatures. Utah Chubs enjoy macrophyte cover.

Henrys Lake update – each year IDFG conducts an annual spring gill netting effort (50 nets), with a goal of 11 trout per gill net. The average catch rate is 0.7 fish per hour. For the last 6 years, there has been a decline in the number of trout in the lake, but in 2019 it was starting to increase, and in 2020, skyrocketed. There are a lot of trout in the lake right now and the size of the trout is increasing. In 2020, 1.3 million trout were stocked into the lake. In 2019 the catch rate was over 1 fish per hour, compared to 0.4 in 2016.

Big Springs Water Trail Recreational Use Study
Kamberlee Allison, Henry's Fork Foundation

Anglers have reported declines in various aspects of the fishery and their experience on the Big Springs Water Trail, especially related to the number of nonangling floaters on the river. Conducted May 25 to September 2, 2019, this study quantified floater use, determined whether use was exceeding capacity of facilities, and assessed angler and floater satisfaction with experience. The study estimated total use at 37,187 floaters, and that the capacity of the launch parking lot was exceeded around one-third of the time. Over 90% of floaters interviewed were satisfied or very satisfied with all aspects of their recreational experience. Only 58% of anglers surveyed rated their fishing experience as better than "fair". Relative to their expectations, anglers were significantly dissatisfied with size of fish caught, quality of fish habitat, and number of non-anglers they encountered on the river. Quality of angling experience did not depend on number of non-anglers seen on the river, but on length of experience fishing the upper Henry's Fork, which had a negative correlation with angler satisfaction. Also, angler support for management changes aimed at biological aspects of the fishing experience was at least as high as that for changes aimed at sociological aspects. The decision to increase parking or limit the number of floaters lies fully within the management authority of the Forest Service. Ultimately, addressing the larger issue of declining fishing quality on the upper Henry's Fork will require a collaborative effort involving CTNF, Idaho Department of Fish and Game, Fremont County, the Henry's Fork Foundation, the upper river fishing clubs, and other stakeholder groups and agencies.

Fish like plants (but maybe not) and other stories from the Henry's Fork
Jack McLaren, Henry's Fork Foundation/Utah State University

Good habitat quantity and quality is required to support strong fisheries of wild trout. The trout fishery in the Henry's Fork upstream of Island Park Reservoir has been in decline for some time. Locals tell us submerged plants have been in decline over the same time. To evaluate this potential connection between fish and submerged plants, HFF and Utah State University led by Doctoral Researcher Jack McLaren used snorkel surveys to observe fish habitat use. Our findings suggest fish preferred to rest and feed in deeper water mostly free of submerged vegetation but near to locations with lots of submerged vegetation, indicating an indirect link between fish habitat and submerged vegetation. Fish habitat preferences varied based on location and time of year, just as submerged vegetation also varied with location and time of year, perhaps indicating another indirect link between fish habitat and submerged vegetation growth. Future work aims to utilize more advanced techniques to understand the mechanisms governing fish habitat preferences. Knowing more about how submerged vegetation affects fish habitat will help reduce uncertainty about potential causes of the decline in fishery quality and could reveal potential management tools for improving the fishery and fishing in the Henry's Fork. The Upper Henry's Fork helps support a $30 million dollar fly-fishing industry, as well as a growing commercial and vacation home industry. The river is spring-fed, meaning it's a potential refuge against future drought for coldwater fish like trout and salmon. Understanding the Upper Henry's Fork and its issues provides an opportunity to restore a once-important fishery, and one that is bound to grow in economic and ecological importance into the future.

Community Building and Wrap Up

Aaron Dalling, co-facilitator from Fremont-Madison Irrigation District (FMID) called for one minute of silence to reflect on the meeting and prepare any final announcements or comments.

Aaron then shared that the next Watershed Council meeting would be February 9th, likely held virtually.