



# Big Hole Watershed Committee

## Committee Report & Updates

### June 2020

#### May Meeting Cancelled due to Coronavirus

In an abundance of caution and in response to the COVID-19 restrictions on public gatherings, the Big Hole Watershed Committee cancelled its scheduled public meetings in March, April, May, and June 2020. In lieu of meeting minutes, please enjoy this committee report with information on BHWC's programs, projects, and partner activities.

#### May Committee Report

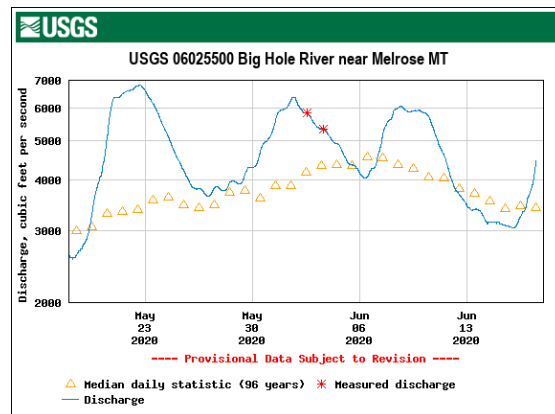
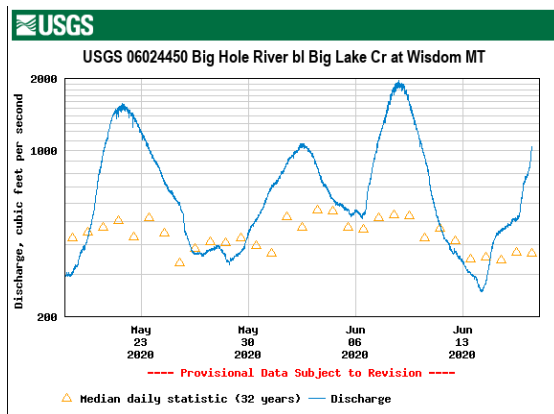
Our May 2020 Committee Report is available here: <https://bhwc.org/monthly-meetings/> (scroll down for past meeting minutes). Please contact us at [info@bhwc.org](mailto:info@bhwc.org) if you would like to suggest additions or corrections to either the May 2020 Report or this document.

#### Reports

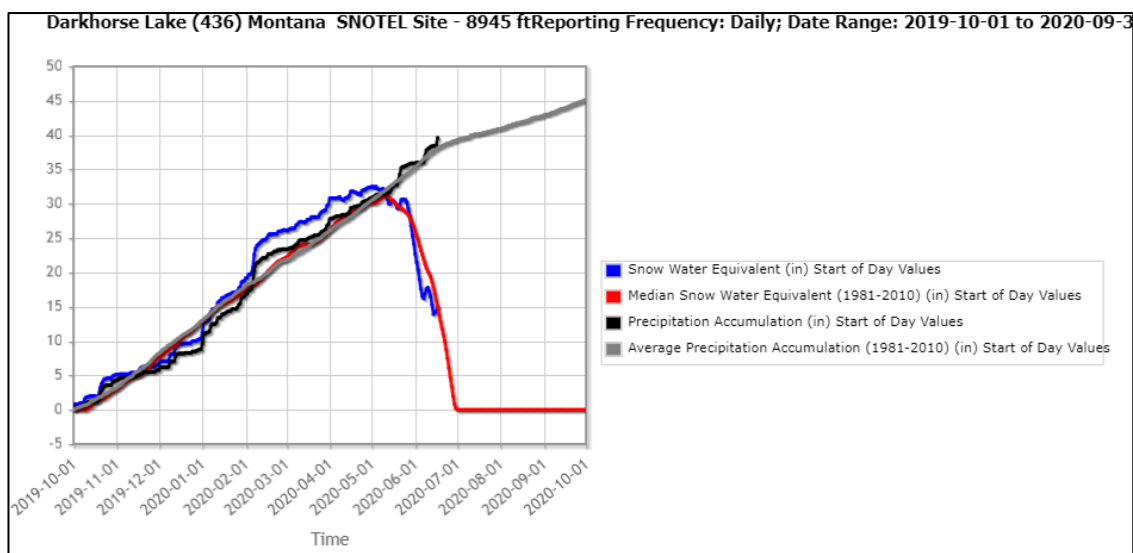
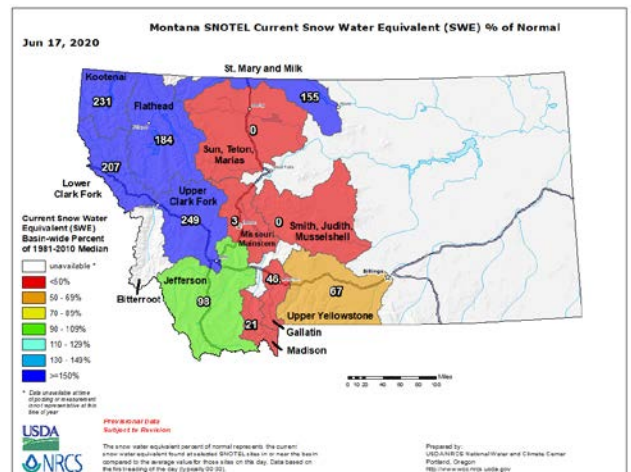
*Streamflow/Snowpack Report as of June 17, 2020 – Matt Norberg, Montana Department of Natural Resources and Conservation*

- **Streamflows:** Irrigation is in full swing throughout the basin. Streamflows during May and June have been up and down, primarily due to precipitation events coupled with active snowmelt runoff, which have produced multiple peaks. In the last week (2<sup>nd</sup> week of June) flows began to drop, especially in the upper basin, dropping to or below median daily flows at many gages as the last of the snowpack was melting off. The last couple of days of precipitation has brought flows back up to well above normal as well as cooler temps. Expect flows to drop rapidly again when the rain stops since our snowpack did the bulk of its work in May and early June, however the high elevation SNOTEL sites have gained some additional SWE from this storm, which will be helpful in potentially extending runoff a couple of more days.

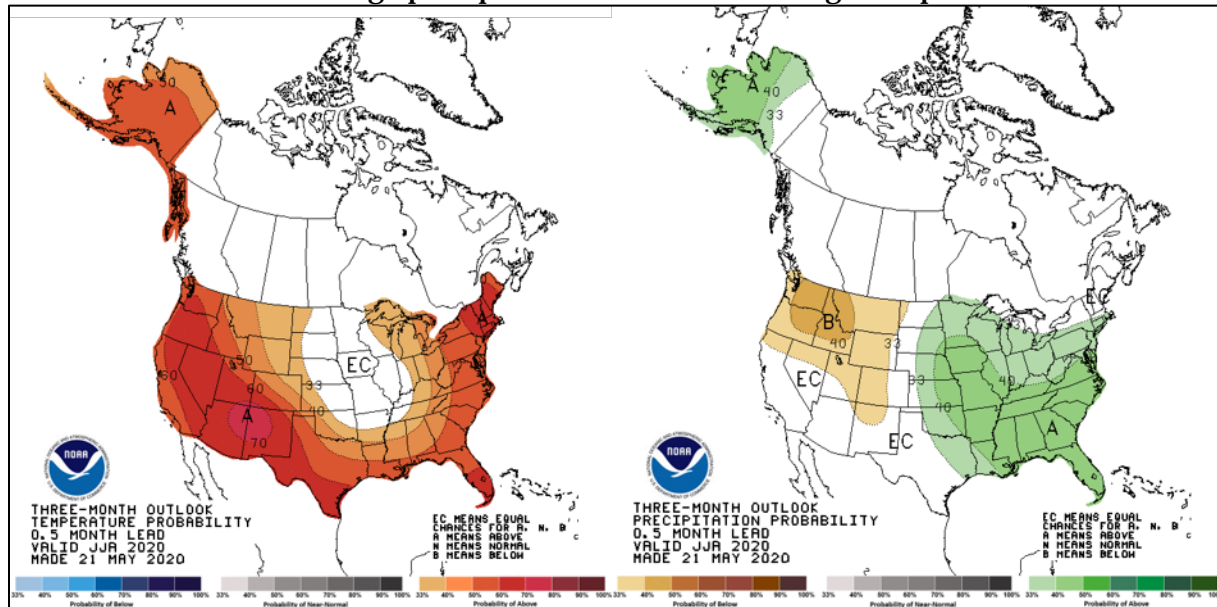
Big Hole Streamgage Readings							
Station Number	Station name	Date/Time	Gage height, feet	Dis-charge, ft <sup>3</sup> /s	Long-term median flow 6/17	Temperature, deg C	
■ UPPER MISSOURI RIVER BASIN							
<a href="#">06023500</a>	Big Hole River near Jackson MT	06/17 11:15 MDT	2.36	176	299	--	
<a href="#">06023800</a>	Big Hole River ab Spring Creek nr Jackson MT	06/17 10:00 MDT	3.02	268	215	--	
<a href="#">06024020</a>	Big Hole River at Miner Creek nr Jackson MT	06/17 09:15 MDT	3.38	891	1,040	--	
<a href="#">06024450</a>	Big Hole River bl Big Lake Cr at Wisdom MT	06/17 11:45 MDT	4.47	1,040	369	7.6	
<a href="#">06024540</a>	Big Hole River bl Mudd Cr nr Wisdom MT	06/17 12:30 MDT	4.67	2,400	1,010	--	
<a href="#">06024580</a>	Big Hole River near Wise River MT	06/17 11:30 MDT	5.20	3,450	3,110	<a href="#">Ssn</a>	
<a href="#">06025250</a>	Big Hole River at Maiden Rock nr Divide MT	06/17 11:45 MDT	5.91	4,460	3,430	<a href="#">Ssn</a>	
<a href="#">06025500</a>	Big Hole River near Melrose MT	06/17 12:15 MDT	4.51	4,450	3,420	9.1	
<a href="#">06026210</a>	Big Hole River near Glen MT	06/17 12:30 MDT	4.84	4,220	2,510	<a href="#">Ssn</a>	
<a href="#">06026420</a>	Big Hole R bl Hamilton Ditch nr Twin Bridges, MT	06/17 11:30 MDT	3.930	3,370	3,720	10.0	



- Snowpack:** The Big Hole Basin is currently at 105% of average and the Jefferson Basin as a whole is at 98% of average. Percent of average values for this time of year can change drastically due to spring storms, so take this into account when looking at snowpack % for this time of year. Majority of the SNOTEL sites across the basin have melted out, with only the higher elevation sites holding the remaining snowpack. Snowmelt this year started melting right on schedule, but melted at a faster pace in May and continued into June, until this recent storm slowed high elevation melt (and even added some SWE). As we move forward into summer, this could be of concern. Darkhorse Lake currently has 15 inches of snow water equivalent which is just above average for this date. (average is 14.9). Summer precipitation and temperatures will heavily influence streamflows moving forward this season.
- Precipitation:** June precipitation is currently above average for majority of the Big Hole River basin. This has certainly benefitted streamflows but precipitation is expected to be below normal for the rest of the month and into the summer. Calvert Creek SNOTEL site has received 2.4 inches of precipitation for the month of June (209% of average) and Darkhorse Lake SNOTEL has received 3.7 inches of precipitation (136% of average). These above average precipitation accumulations have been reflected in multiple streamflow peaks across the basin.



- **Forecast:** ENSO-neutral conditions are favored to remain throughout the summer (60% chance). There is a 40-50% chance that La Nina or ENSO-neutral conditions will occur in the winter (2020-2021). Let's hope the "weather man" is wrong and the recent precipitation trend continues to provide ample moisture throughout the basin. Most recent NOAA 3-month outlook is for below average precipitation and above average temperatures.



#### *Director's Report – Pedro Marques, Executive Director*

- Getting out to see our projects come to life this spring was a highlight of this month. I hope everyone is finding ways to stay engaged and outdoors while staying safe.
- The streamgage survey has received over 500 survey results. And the DNRC recently released a video showing what is in a real-time stream gage and the work that goes into keeping them running- [http://mediaserver.dnrc.mt.gov/Inside\\_a\\_Real-Time\\_Stream\\_Gage\\_final.mp4](http://mediaserver.dnrc.mt.gov/Inside_a_Real-Time_Stream_Gage_final.mp4). BHWC is again committed to paying nearly \$9,000.00 to keep data flowing from 5 gages on the Big Hole and 1 on Wise River. (Survey link below.)
- We've been working hard updating our newly refreshed website with up-to-date content and images from all the good work we've been getting on the ground. Hope you take a second to check it out at <https://bhwc.org>.
- Stakeholders, including Madison County Commissioner, landowners, engineers and a contractor met at Pennington bridge to discuss plans moving forward to come up with a solution to bank destabilization issues there. This work will be funded by a grant we received from the Bureau of Reclamation.
- The governing board and I sent a letter to our elected representatives, particularly to the Indian Affairs committee who are meeting to discuss the CSKT compact. BHWC supports signing of this legislation.
- I contributed to a piece by the Intermountain Joint Venture on the collaborative conservation work of the CCAA program in the upper river. Read it here: <https://iwjv.org/beyond-the-banks/>.
- Cultural inventories will be conducted for future projects on a mesic area above French Creek and we are supporting FWP on a project on lower French Creek.
- I participated in two calls with the High Divide Collaborative, helping guide the roll of the organization's coordinating committee.
- BHWC's spring/summer newsletter was published recently and [can be viewed here](#).



*Steering Committee – Randy Smith, Chairman; Jim Hagenbarth, Vice-Chairman; Steve Luebeck, Treasurer; and Roy Morris, Secretary*

- Steering Committee is happy with the progress BHWC is making and will be meeting with Pedro the week of July 6<sup>th</sup> to review financials and mid-year performance.

*Wildlife Report – Tana Nulph, Associate Director*

- People and Carnivores has confirmed 2 grizzly bear sightings (both adult male, possibly the same bear) in the Big Hole watershed this year (1 near Jackson, 1 near Wisdom). Please be aware that there is at least 1 grizzly bear in the area (in addition to many black bears) and be prepared when recreating or working outdoors in the Big Hole!
  - BHWC has bear-resistant garbage cans available free-of-charge to Big Hole Valley residents. Contact Tana for more information: [tnulph@bhwc.org](mailto:tnulph@bhwc.org) or 406-267-3421. First come-first served basis, limited quantity.
  - BHWC recently put together a Livestock Loss Prevention Loaner Toolkit for Ranchers. Producers are welcome to borrow/test any or all of the supplies, which include: CritterGitter motion-activated alarms, FoxLight motion-activated spotlights, airhorns, game cameras, temporary electric fencing, resource guides RE: tracking, Livestock Guard Dogs, etc., and more. The kit now also includes bear spray and bear safety supplies. Contact Tana (info above) for more information.
- BHWC's Carcass Removal & Composting program processed 53 livestock carcasses from 9 ranchers this spring. UM Journalist, Katie Hill, recently published a story about the composite site. It can be accessed here: <https://bhwc.org/mountain-journal-highlights-bhwc-composting-program/>.
- The Upper Big Hole Range Rider program starts July 1<sup>st</sup>. Chet Robertson will patrol 6 USFS grazing allotments for 7 livestock producers, monitoring predator activity and livestock conditions. We purchased some new cameras for the program, so we're hoping to get some great wildlife photos this year!
- BHWC is participating in the Western Landowner Alliance's Livestock-Carnivore Prevention & Compensation Work Group.

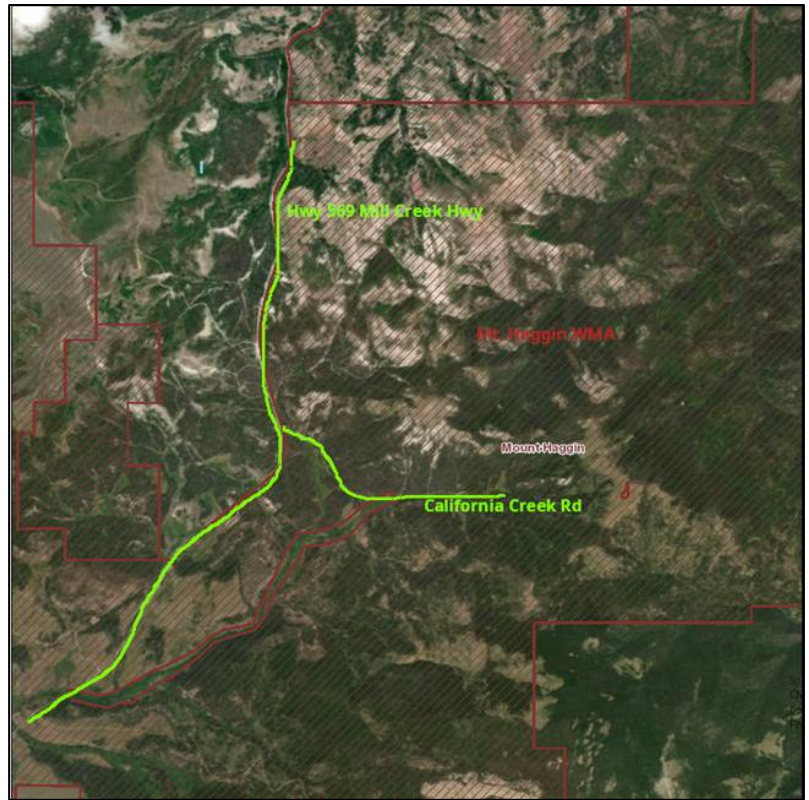
*Restoration Report – Ben LaPorte, Program Manager*

- Extra! Extra! Read all about it! FREE FENCING material along the California Creek road!!
  - Are you in the market for some fencing material? What about free fencing material? Well, you are in luck! Several years ago, BHWC, with project partners DEQ, FWP and NRDP installed fencing enclosures and plant protectors along the California Creek road as part of our restoration efforts. The fencing was meant to protect the freshly planted shrubs and trees against browse from ungulates and other critters. The fencing has done its job and is no longer needed. Its time to clean it up! Posts, fence, plastic protectors, wooden stakes-it can all be yours, as long as you're willing to dismantle it and haul it away. What a screaming deal!





- Contact Ben LaPorte for more detailed material locations. Ben is also happy to help dismantle and load.
- As you are in the area, take a few moments and take a look at the successes of the past restoration work. You will notice copious beaver mimicry structures in California Creek and all of the additional water we are spreading out on the floodplain.
- Watch out for willow stakes popping out of the ground too. Future riparian area growing there!
- All of this restoration work is in response to aerial emissions from early 20<sup>th</sup> century smelting activities in Anaconda that gave way to large scale erosion and degradation. You can read about all of our past work in the California Creek drainage in the [California Creek final report](#) here.



- The majority of my month has been spent on the steep, bare slopes of the Mount Haggin WMA. I have been working with project partners, Watershed Consulting LLC to prep 54 acres of bare eroding slopes for helicopter fertilizer and seed applications. This work consists of roughing the bare slopes by hand and machinery to give the fertilizer and seed surfaces to grab on to and establish. Fertilizer applications will be in July. Seed applications are scheduled for the fall. Other work has consisted of low-tech, hand installed erosion control treatments throughout the Injured Area. Work will pick back later this summer with the start of the large-scale remedy project scheduled for around August.



Watershed Consulting LLC filling and neutralizing an erosive gully on the Mount Haggin WMA. The machine work also consisted of roughing (dozer basins) the bare areas to give upcoming seed and fertilizer applications surface area to establish and grow.

- I submitted the final application of our *Upper French Gulch Fish Passage and Restoration Project* proposal to DNRC's Reclamation and Development Grants Program (RDGP). This is the last major project in a suite of projects in the French Creek watershed to address basin-wide water quality, habitat issues and native fishery restoration. The primary goal of this



project is to provide passage connectivity for native fish to the upper reaches of the French Creek drainage. This requires replacing the existing cascade and culvert barrier with a sinuous, step-pool system. Another goal is restoration of two eroding streambanks downstream of the cascade by revegetating and applying bioengineering techniques with hand crews and equipment. Our proposal will be reviewed this summer, with final ranking and funding recommendations submitted to the Governor for approval in the fall.

- Over the past few months, I have been working with a landowner in the upper Big Hole to treat some forest health related issues on their property. This month, I met with Sun Mountain Lumber, The Nature Conservancy and the landowner to find the best solution to meet landowner's goals, while also meeting conservation targets. SML will be selectively thinning the forest stand while also targeting encroaching Douglas-Fir/Lodgepole into sage steep and aspen stands. The result of the project will be a healthier/fire resilient forest stand, better habitat for wildlife and a perfect example of conservation through consensus!
- We kicked off our Elkhorn Mine and Mill Site Characterization and Investigative Alternatives Analysis project! Project partners USFS, BHCW and Watershed Consulting met at the historic Mine and Mill to tour the site and kick off the project. Over the course of the summer, Watershed Consulting will monitor the site to better understand the degree and extent of water quality exceedances and heavy metal contamination in Elkhorn Creek and in the vicinity of Elkhorn Mine and Mill. This information is critical to informing future restoration decisions. An aerial topographic (LiDAR) survey will be flown later this summer. The LiDAR data is another major component to this project and will be instrumental to future restoration decision making.
- Ongoing formulation of potential future projects and funding scenarios.



Acid mine drainage flowing out of the "1000 ft" adit at the old Elkhorn Mine and Mill. Our current project, funded by the DNRC's RDGP Planning Grant and DEQ 319 Volunteer Monitoring Lab Analysis Program is investigating the extent to the ongoing contamination and ways in which to stop/slow this toxic water from entering Elkhorn Creek. Clearly a high priority site!

## New Business

- None

## Special Topics:

- STREAMGAGE USERS: Please complete the Montana Stream Gage Survey here, today: <https://www.surveymonkey.com/r/95JZPPC>.
  - Montana is home to 264 gages funded and maintained by state, federal, and local governments; private companies; and nonprofits. Each organization has its own goals and needs for the gage data. The data for most of the gages is publicly available through apps and websites.



- We know that gage data sites are being visited much more over the last 5 years, but we don't know who is checking on the data and for what reasons. Public funding for the gage's maintenance has remained flat or decreasing over the last decade.
- The Streamgage Data User's Survey was created by representatives from local nonprofits and state and federal agencies to help us understand how people and organization are using and accessing data.
- Please be sure to pass this along to any friends or colleagues who may also be gage users!

### **Upcoming Meetings**

The current COVID-19 situation has made things uncertain over the next few months. We will resume our regular monthly meeting schedule (the 3<sup>rd</sup> Wednesday of each month, except for July and December) when conditions allow and will make the necessary announcements when that time comes.

### **Adjourn**