



Big Hole Watershed Committee

Virtual Monthly Meeting Minutes

August 19, 2020 via Zoom

In Attendance

Pedro Marques, BHWC; Tana Nulph, BHWC; Ben LaPorte, BHWC; Sandy Cleary; Paul Cleary, BHWC; Matt Norberg, DNRC; Sierra Harris, BHWC/TNC; Roy Morris, BHWC/GGTU; Eric Thorson, BHWC/Sunrise Fly Shop; Chris Edgington, Montana Trout Unlimited; Marcie LaPorte; Chris Galle; Michelle Anderson, UM-Western; Peter Frick, BHWC/Rancher; Lemhi Regional Land Trust; and Jarrett Payne, FWP.

June Committee Report

BHWC does not meet in July, and our March-June meetings were cancelled due to COVID-19. During this time, we provided written committee reports in lieu of meeting minutes. Our June 2020 Committee Report is available here: <https://bhwc.org/monthly-meetings/> (scroll down for past committee reports/meeting minutes). Please contact us at info@bhwc.org if you would like to suggest additions or corrections to either the June 2020 Report or this document. The August 2020 meeting was held virtually via Zoom: the meeting recording can be viewed here: <https://youtu.be/mwgg5kS7SXc>.

Reports

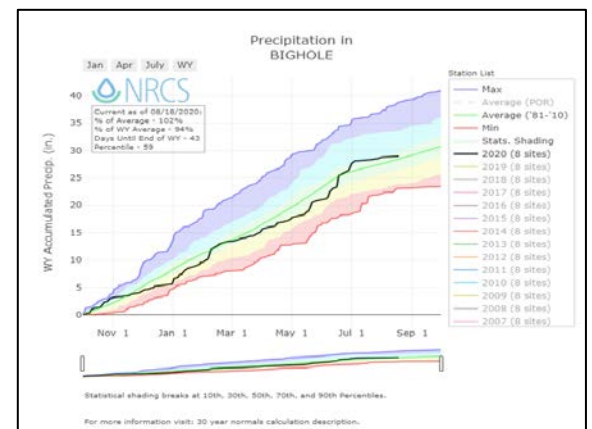
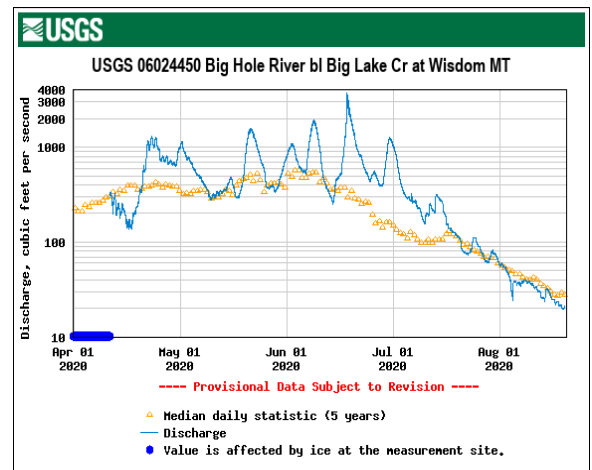
Streamflow/Snowpack Report as of August 19, 2020 – Matt Norberg, Montana Department of Natural Resources and Conservation

- Streamflows:** Spring and early summer conditions on the Big Hole River (generally) were at or above normal conditions. Precipitation events coupled with cooler temperatures extended high elevation snowmelt and extended runoff through the beginning of July. Flows nearly made it all the way through the end of July without hitting CCAA minimum flow targets at the Upper Big Hole sites. Upper basin streamflow contributions from CCAA landowners began in

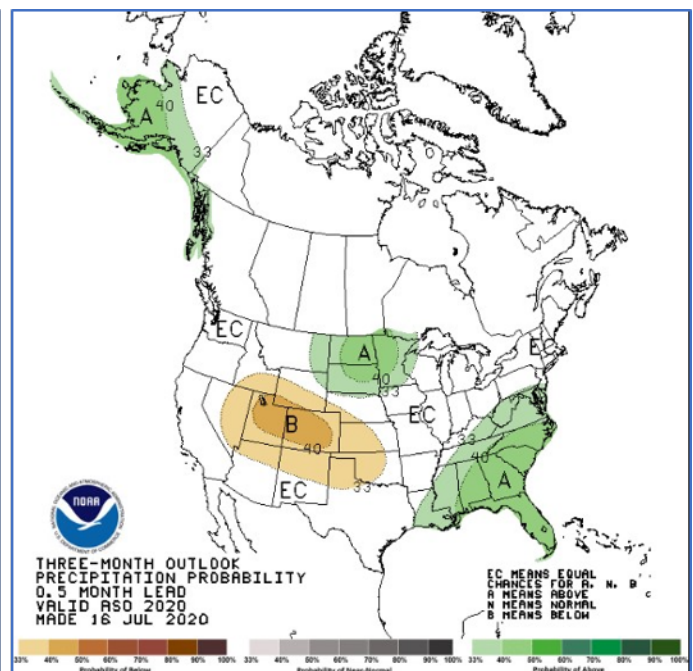
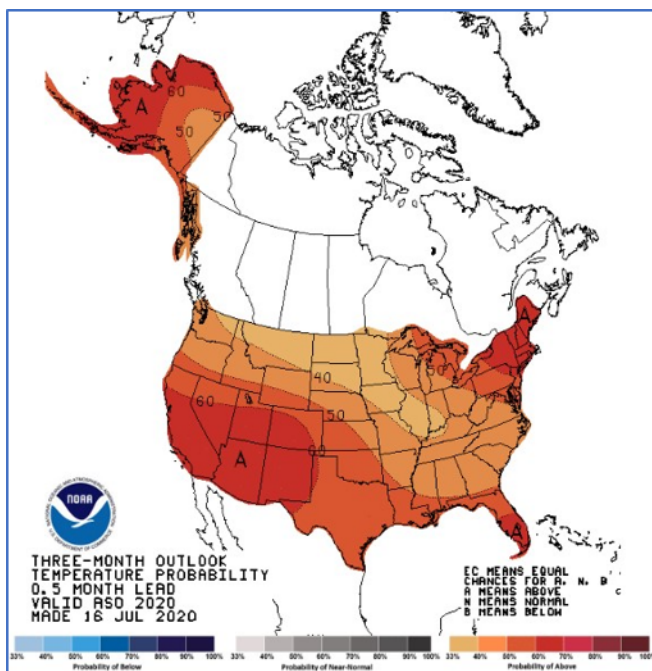
Big Hole Streamgauge Readings				Long-term median flow 4/16			
Station Number	Station name	Date/Time	Gage height, feet	Dis-charge, ft ³ /s	Long-term median flow 4/16	Temperature, deg C	
■ UPPER MISSOURI RIVER BASIN							
06023500	Big Hole River near Jackson MT	08/19 13:15 MDT	1.05	21.0	23.0	--	
06023800	Big Hole River ab Spring Creek nr Jackson MT	08/19 13:00 MDT	1.41	17.0	26.0	--	
06024020	Big Hole River at Miner Creek nr Jackson MT	08/19 13:15 MDT	0.88	37.6	68.0	--	
06024450	Big Hole River bl Big Lake Cr at Wisdom MT	08/19 12:45 MDT	1.76	21.2	28.0	18.2	
06024540	Big Hole River bl Mudd Cr nr Wisdom MT	08/19 13:30 MDT	2.55	117	104	--	
06024580	Big Hole River near Wise River MT	08/19 12:30 MDT	2.53	183	278	17.1	
06025250	Big Hole River at Maiden Rock nr Divide MT	08/19 12:45 MDT	2.89	303	329	17.6	
06025500	Big Hole River near Melrose MT	08/19 13:15 MDT	1.46	277	337	18.3	
06026210	Big Hole River near Glen MT	08/19 13:30 MDT	2.31	250	238	20.5	
06026420	Big Hole R bl Hamilton Ditch nr Twin Bridges, MT	08/19 12:30 MDT	0.680	161	140	20.4	

the last few weeks and enrolled landowners are complying with site plans. River conditions in July and August have dropped at or below normal conditions and elevated water temperatures are causing fishing restrictions (Hoot Owl) in Sections 2, 4, and 5.

- **Precipitation:** Year-to-date precipitation in the Big Hole Basin is currently 102% of average and 95% of average in the Jefferson River Basin. Late spring and early summer precipitation events coupled with average to above average snowpack throughout the basin resulted in above average streamflows in the Big Hole this season. Precipitation during the latter part of July and August (to date) are below average, which along with above average temperatures have resulted in declining streamflows and elevated water temperatures.
- **Forecast:**
 - ENSO Alert System Status: La Niña Watch.
 - Synopsis: There is a ~60% chance of La Niña development during Northern Hemisphere fall 2020 and continuing through winter 2020-21 (~55% chance).
 - The 3-month outlook for August/September/August is for above average temperatures and equal chances of above/normal/below precipitation.



Director's Report – Pedro Marques, Executive Director



- **Covid Response:**
 - PPP loan/grant and State grant.
 - Delayed volunteer events and cancelled meetings.
 - Adaptable staff!

- Steering Committee meeting in June:
 - Maintaining current capacity is priority 1.
- Partnerships:
 - High Divide Coordinating Committee:
 - Getting real about “connectivity”.
 - Exploring RCPP funding.
 - Heart of Rockies look at sustainable funding for wildlife conflict.
 - LWCF funding passage.
 - CCAA, USFS:
 - No listing for Grayling.
 - Supporting fence removal and wet meadow restoration projects- Selway, Saginaw and North Fork BH.
 - Participating in BVRD Working Group meetings.
- Drought and Gages:
 - Streamgage Survey- more ag user data needed.
 - Working Group- Influencing the process. Pushing for statewide funding of all gages.
 - TU, and FWP drought response and communications.
- Projects
 - BoR planning grant being contracted.
 - Developing proposal for 319 program.
 - Forestry Cooperative and other vegetation management projects.
 - Bender Creek.
 - LSR and other vegetation management projects.
- Communications:
 - Website update and upgrade!
 - More social media! Instagram and Facebook keeping people connected to our work.
- Big Hole Conservation Fund:
 - Big Hole is a Big Deal.
 - 1% for the River- businesses and tourist engagement.
 - Remove the non-federal match bottleneck.

Steering Committee – Roy Morris, Secretary

- Steering Committee is happy with the progress BHWC is making.

Wildlife Report – Tana Nulph, Associate Director

- Upper Big Hole Range Rider Program:
 - Chet Robertson, Range Rider:
 - Patrols 6 grazing allotments.
 - July 1 – September 30.
 - Monitors predator activity, livestock condition.
 - Goals:
 - Deter livestock depredation.



- Help producers find carcasses & get reimbursed.
 - 2020:
 - New game cameras.
 - Wolf activity.
 - Resident grizzly bear (Jackson).
 - Funding:
 - Livestock Loss Board.
 - National Fish and Wildlife Foundation.
 - Carcass Removal & Composting:
 - John Costa, Wildlife Programs Technician:
 - Manages BHWC compost site (Wisdom).
 - Drives carcass removal dump truck.
 - 2020 Funding:
 - Livestock Loss Board.
 - National Fish and Wildlife Foundation.
 - 2020:
 - 53 carcasses.
 - 9 producers.
 - Press coverage: [Mountain Journal: Composting Carcasses In Cattle Country Keeps Livestock And Predators Alive.](#)
 - Loaner Toolkits:
 - Livestock Loss Prevention:
 - Producers can borrow/test.
 - Scare devices, temporary e-fencing, bear spray, resource guides, etc.



- 2020 funding:
 - Livestock Loss Board.
 - Vital Ground Foundation.
- Bear Safety:
 - Big Hole residents can borrow/test.
 - Scare devices, bear-resistant backpacking containers, resource guides, bear spray, inert practice bear spray, etc.

- 2020 funding:
 - Vital Ground Foundation.
 - Contact BHWC for more information:
 - info@bhwc.org
 - 406-267-3421
- Wildlife Conflict Reduction: Beaver!
 - Goal: To reduce human-beaver conflicts using non-lethal and habitat sustaining methods.
 - Beaver Culvert Fence (Sugar Loaf Lodge, private):
 - ADLC struggling with beavers blocking culverts.
 - BHWC helped coordinate installation of beaver culvert fence (a.k.a. beaver deceiver).
 - Mule Ranch Pond Leveler (FWP):
 - Working with Elissa Chott, Beaver Conflict Resolution Field Technician, Clark Fork Coalition.
 - Building partnerships:
 - FWP, ADLC, CFC, private landowners, etc.

Restoration Report – Ben LaPorte, Program Manager

- Elkhorn Mine & Mill:
 - BDLNF-Eastern Pioneers-tributary to Wise River.
 - Large scale hard rock mining activities from 1913-1930 and periodically from 1944-1970's.
 - Reclamation and remediation efforts from 1998-2005:
 - Removal of waste rock dumps/mine tailings to a capped repository.
 - Removal of mine tailings in the floodplain and reconstruction of abandoned channel.
 - Removal of contaminated building materials associated with demolished structures.
 - Still chronic impairments to the environment and public health= acid mine drainage flowing out of adit (horizontal mine shaft).
 - Active flowing adit is currently discharging up to 150 gallons per minute of heavily contaminated groundwater from the inner workings of the mine that eventually flow directly into Elkhorn Creek.
 - Constructed ditches from early 2000's remedy have failed.



Elkhorn Mill circa 1919

- Active flowing seep below mill site (through old mine tailings) is adding additional contamination.



Elkhorn Mill circa 1935



Previous restoration efforts on Elkhorn Creek and surrounding area

- Elkhorn Mine and Mill Site Characterization and Investigative Alternatives Analysis:

- DNRC Reclamation and Development Grant and DEQ's 319 Volunteer Monitoring Lab Analysis Program.

- Monitor and sample the site to better understand the degree and extent of water quality exceedances and heavy metal concentrations

- LiDAR

- Geo-reference old mine survey maps and underground maps to better understand mine workings and water dynamics

- This information is critical to informing future restoration decisions.

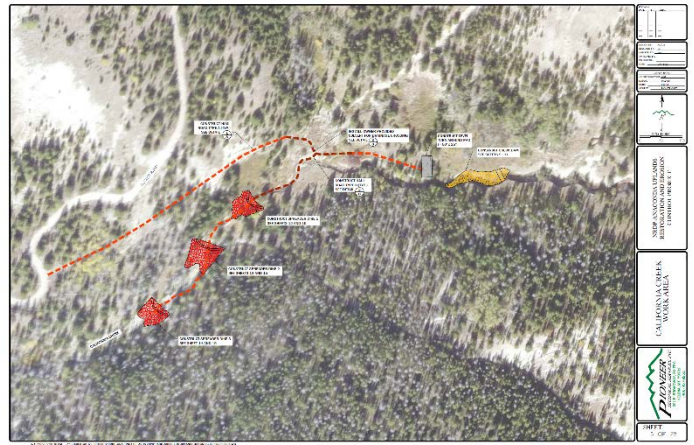
- The goal of the project is to investigate the extent to the ongoing contamination and ways in which to stop/slow this toxic water from entering Elkhorn Creek.

- It is our hope that this investigation will lead to a larger restoration effort for this area.



- **Anaconda Uplands 2020 Construction:**

- First week of construction
- N. California Creek
 - 3 “Spreader Dikes” (Red)
 - 1 large “Gully Check Dam” (Yellow)
- Partners:
 - MCC
 - Watershed Consulting

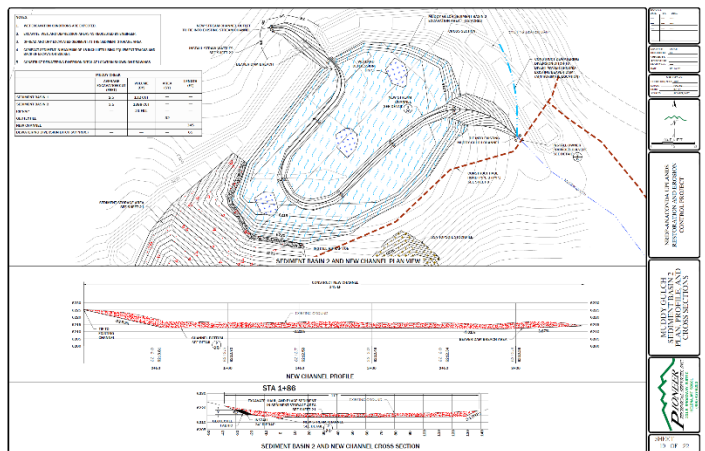


- **Muddy Gulch:**

- Restoration of a historic beaver dam.
- Lowering surrounding floodplain.
- Building 5 “depressional wetlands”.



- Creating longer meander.



- **East Fork Divide Creek 2.0:**

- Second round (2.0) of a “Beaver Dam Analog” project on the Morris Ranch.
 - East Fork Divide Creek.
- Installation of 55 BDAs on two reaches:
 - Low Tech Processed-Based.
 - Hand-built structures that mimic and promote the processes of beaver.
 - Native materials-mixture of woody and sod material.
 - Sediment capture.
 - Water storage.
 - Floodplain activation.
- Holding Back the Snowpack!

- **Oregon Creek:**

- Monitoring & reporting.
- Before & after photos (available on our website at <https://bhwc.org/project/oregon-creek-placer-mine-restoration/>).



New Business

- None

Special Topics

- Meeting included the premiere of our latest film, *Holding Back the Snowpack*, available on our YouTube channel: <https://youtu.be/UG8YWqSHF88>
 - About the film: The Big Hole Watershed Committee collaborates with a variety of partners to create life-giving wetlands in SW Montana. Taking cues from flood irrigation and beavers, natural water storage projects help us adapt to climate change by slowing spring runoff and soaking the soil sponge. The film highlights our pro-active work to increase the availability of water for all uses by making the most of abundant winter snowpack.
 - Film production by FilmWest.
 - Project funding: The Wildlife Conservation Society, Natural Resourced Damage Program, Montana Department of Environmental Quality, Montana Watershed Coordination Council, and Montana Department of Natural Resources and Conservation.
 - Project Partners and Contractors: BHWC, Water and Environmental Technologies, Watershed Consulting, Pioneer Technical, Morrison-Maierle, Basic Biological Services, and Montana Conservation Corps.
 - Support our life-giving work by donating today at <https://bhwc.org/giving/>.

Upcoming Meetings

- BHWC Virtual Monthly Meeting, September 16, 2020 – 7pm via Zoom

Adjourn