



Big Hole Watershed Committee

Committee Report & Updates

April 2020

April Meeting Cancelled due to Coronavirus

We made the difficult decision to cancel both our March and April meetings this year due to the COVID-19 outbreak. Our April meeting was planned for Wednesday, April 15th, 2020, 7pm at the Divide Grange. We had planned to discuss invasive weeds in the Big Hole watershed. It is important to us to protect our stakeholders and staff, but we also want to keep the ball moving and keep our members informed. So in lieu of meeting minute, we are providing this electronic report with committee & project updates as well as information on conservation topics relevant to the Big Hole watershed and its stakeholders.

March Committee Report & Updates

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

Reports

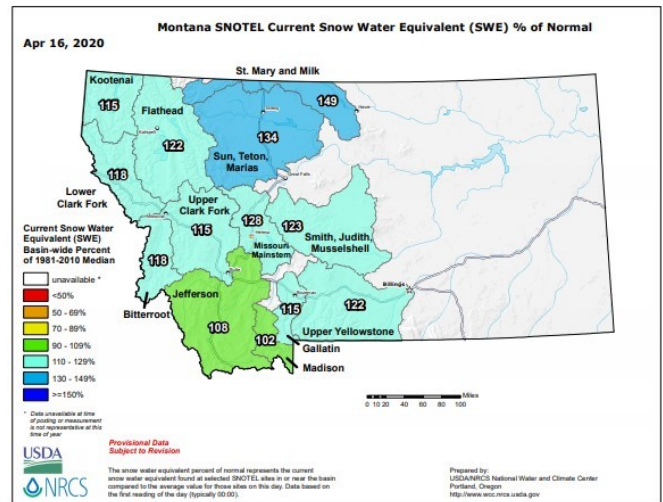
Streamflow/Snowpack Report as of April 16, 2020 – Matt Norberg, Montana Department of Natural Resources and Conservation

- **Streamflows:** Gages in the Big Hole Basin are back online, however some are still reporting ice conditions, but will be up and running shortly as seasonal spring conditions warm up. The gages that are reporting discharge are currently below median flow values, but that should change once valley snowmelt kicks in.

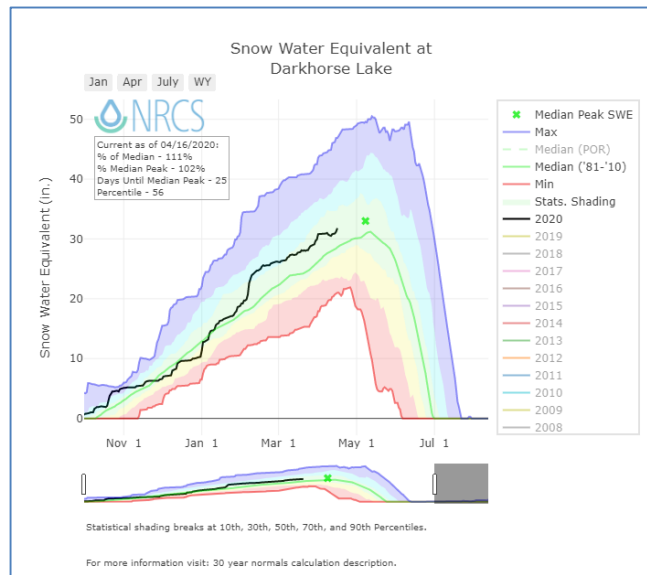
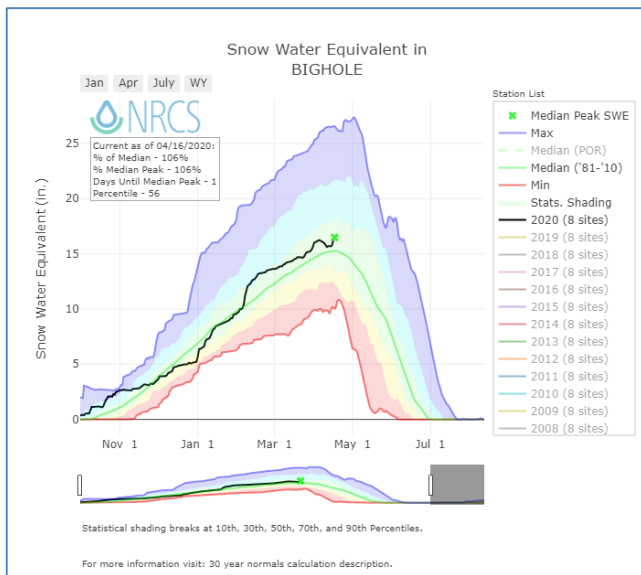
06023500	Big Hole River near Jackson MT	04/16 10:15 MDT	0.91	<u>Ice</u>	41.0	--
06023800	Big Hole River ab Spring Creek nr Jackson MT	04/16 10:00 MDT	1.65	30.3	63.0	--
06024020	Big Hole River at Miner Creek nr Jackson MT	04/16 10:15 MDT	0.95	54.6	239	--
06024450	Big Hole River bl Big Lake Cr at Wisdom MT	04/16 09:45 MDT	2.50	<u>Ice</u>	386	-0.1
06024540	Big Hole River bl Mudd Cr nr Wisdom MT	04/16 08:30 MDT	3.14	<u>Ice</u>	860	--
06024580	Big Hole River near Wise River MT	04/16 10:30 MDT	3.04	<u>Ice</u>	905	<u>Ssn</u>
06025250	Big Hole River at Maiden Rock nr Divide MT	04/16 09:45 MDT	3.48	744	1,370	<u>Ssn</u>
06025500	Big Hole River near Melrose MT	04/16 10:15 MDT	2.19	791	1,310	1.0
06026210	Big Hole River near Glen MT	04/16 10:30 MDT	3.00	904	1,260	<u>Ssn</u>
06026420	Big Hole R bl Hamilton Ditch nr Twin Bridges, MT	04/16 10:30 MDT	<u>Ssn</u>	<u>Ssn</u>	964	<u>Ssn</u>

- **Snowpack:** Snowpack conditions across Montana are currently above to well above normal. Currently the snowpack in the Big Hole Basin is slightly above average, sitting at 106% of normal and the Jefferson Basin as a whole is 108% of normal. High elevation snowpack conditions for this year are reporting average to slightly above average conditions and mid elevation sites are also at or slightly above average conditions. We have almost reached the

overall peak snowpack date in the Big Hole as low to mid elevation sites begin melting off, but high elevation sites hopefully continue to gain SWE (peak date for Darkhorse is approx. May 8th). According to the April 1st NRCS Water Supply Outlook Report, near to slightly above average snowpack has resulted in Jefferson River basin forecasts that are near to slightly above average for the April 1st – July 31st period. Spring snowfall at higher elevations and rainfall at valley elevations contributes a significant amount of the annual moisture to the region. Should things take a turn towards the dry side, streamflows could



Big Hole River Representative SNOTEL Sites		15-Apr-19 WY 2019	15-Apr-20 WY 2020	1981-2010 median	WY 2020 % avg
Station	elevation		inches	inches	
Barker Lakes	8250	15.2	16	15.2	105%
Basin Creek	7180	8.5	8.5	8.5	100%
Bloody Dick	7600	11.3	12.6	10.7	118%
Calvert Creek	6430	5.8	5.9	5.3	111%
Darkhorse Lake	8600	29.3	31.8	28.6	111%
Moose Creek	6200	12.9	15.2	14.3	106%
Mule Creek	8300	16	15.8	15.4	103%
Saddle Mtn.	7940	23.1	24	24	100%
TOTAL		122.1	129.8	122	
BASIN AVERAGE %		100	106		



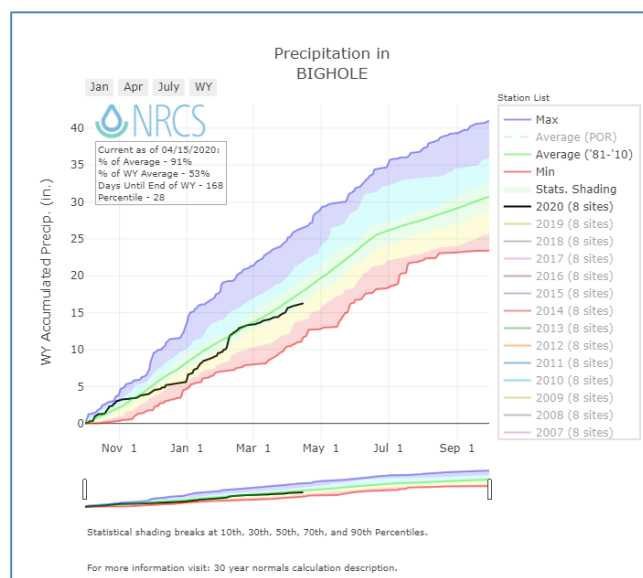
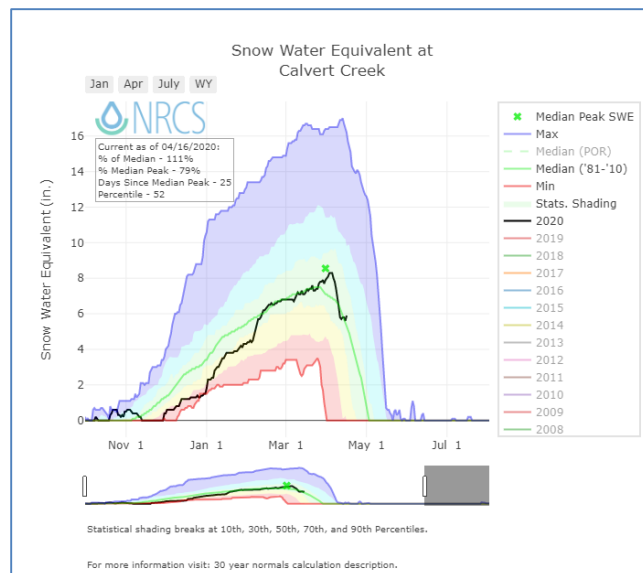
be less than expected. is slightly above average, sitting at 107% of normal and the Jefferson Basin as a whole is 108% of normal. High elevation snowpack conditions for this year are reporting average to above average conditions and well above high elevation 2019 snowpack conditions. Keep in mind that 2019 was an above average snow year but the high elevation conditions (Big Hole) were below to average and the mid to low elevation snowpack was above to well above average which resulted in early runoff and coupled with diminished precipitation during the May and June months streamflow conditions receded earlier than normal.

Currently, according to the NRCS, near to above normal snowpack has resulted in Jefferson River basin forecasts that are near to slightly above average for the April 1st – July 31st period.

- **Precipitation:** Year to date precipitation for the Jefferson River is 95% of average and the Big Hole Basin is currently at 91% of average. Precipitation accumulations were below average during the November and December months. January and February bolstered the precipitation totals to 42% of the total WY average. March was dryer than average, however; April has produced a couple of storms to increase our year to date precipitation. We are a little over ½ way through the water year at this point. As discussed earlier, spring storms can produce significant amounts of moisture to the region on an annual basis.

Forecast: ENSO-neutral conditions are expected to continue through the spring (65% chance) and into the summer months (50% chance). Generally, the three-month outlook calls for above normal temperatures and equal chances of above, normal, or below normal chances of precipitation during the March, April, and May time frame. SST have remained at or above the 0.5°C threshold for the last couple of months, but forecasters are still favoring ENSO-neutral conditions instead of El Nino conditions to persist through the summer. Most recent NOAA 3-month outlook is for equal chances of above average temperatures and equal chances of average precipitation through the spring/early summer.

- **Forecast:** ENSO-neutral conditions are expected to continue through summer (60% chance) and into the autumn months. Generally, the three-month outlook calls for above normal temperatures and below normal to equal chances of average precipitation during the May, June, and July time frame. SST have remained at or above the 0.5°C threshold for the last couple of months, but forecasters are still favoring ENSO-neutral conditions instead of El Nino conditions to persist through the summer. Most recent NOAA 3-month outlook is for above average temperatures and below normal to equal chances of average precipitation through the May/June/July months.



Director’s Report – Pedro Marques, Executive Director

- Greetings everyone from a safe distance! I have spent most of this month on COVID-related family leave to stay with my kids. Apologies for my slow responses to emails.
- While some things have dramatically changed, many aspects of our work have not. Tana, Ben, and John Costa are doing a phenomenal job keeping our programs going and I feel blessed to have such talented and dependable staff. Also want to thank Steve Luebeck for helping me navigate federal stimulus programs!

- BHWC has been approved for a PPP loan, which will help mitigate for an expected downturn in nonprofit giving this year and keep us afloat to deliver conservation wins for the Big Hole. Updated financial projections for the year are in the works and will be provided to the steering committee and board later this month.
- We received two private donations to update our website and build out a private sector partnership program that I am excited to roll out when the business climate is right again. Please support businesses in the Big Hole as much as you can. Recreation-based businesses will be among the last to re-open and they'll need all the support and clients they can get. Hang in there, business owners!
- Pick up your copy of **Montana Outdoors** this month, which includes a wonderful feature article on the Big Hole!
- I helped finalize the state's streamgage user survey, which resulted from our involvement in passing SB 32 mandating a review of Montana's streamgage infrastructure. More details below- find the survey HERE- <https://www.surveymonkey.com/r/95JZPPCC>.
- At the end of last month, I presented a talk along with superstars of conservation from the Blackfoot Challenge, Geum Environmental, and Trout Unlimited to the UofM's Seeking Sustainability lecture series. The topic was on floodplain restoration and can be found here (my talk starts at 39:00): <http://69.144.69.99/CablecastPublicSite/show/11734?channel=1>.
- Led by Montana Tech professor Robert Pal and graduate student Augustina Osabutey, a manuscript I co-authored was submitted to Ecological Restoration documenting our revegetation work and greenhouse study results. Continuing to push the integration of applied research with our restoration programs!
- BHWC won a contract through FWP to support the development and implementation of weed management activities, based on our previous success delivering similar plans. As with our last contract, Jeff Copeland will be sub-contracted and will count on Ben's support to inventory weeds and treat with biocontrol.

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.

Wildlife Report – Tana Nulph, Associate Director

- Carcass removal services are available March 1 – middle of May. Call John Costa (*information on attached flier*). Carcasses are hauled to our livestock carcass compost site near Wisdom. Removing carcass attractant from local ranches can help prevent conflict with predators like bears and wolves.
- Bears are starting to wake up in the Big Hole Valley! Please be bear aware and carry bear spray when you're out recreating. Also be sure to secure garbage, bird feed, and other potential bear attractants.
 - We have bear-resistant garbage cans available, free-of-charge, to Big Hole Valley residents. They can be picked up at the USFS Ranger Station in Wise River, but please call us (or the station) first to make sure they are open.
- BHWC has been working with People and Carnivores to put together a Livestock Loss Prevention Loaner Toolkit, which includes scare devices, electric fencing, resource guides, and more. *Contact Tana for more information. tnulph@bhwc.org or 406-267-3421.*

Restoration Report – Ben LaPorte, Program Manager

- Over the last month, Ben has been working diligently on grant proposals and funding strategies for upcoming restoration projects:

- Continued to formulate BHWC's DNRC RDGP Project Grant proposal for our Upper French Gulch Fish Passage and Restoration Project. 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.
- Working to secure match funds for our East Fork Divide Creek Natural Water Storage 2.0 project. This project is an expansion and intensification of the BDA (beaver dam analog) project completed on the Morris Ranch property in 2019. That project installed 75 BDA structures along three reaches of the East Fork of Divide Creek. The next iteration of this project consists of adding another 55 beaver mimicry structures to the stream and also re-activating offsite water storage locations. Montana Watershed Coordination Council (MWCC) is a project partner and has contributed \$20,000 through a Watershed Fund Project Grant. The project will be completed in the fall of 2020.
- Continuing forestry and upland-related program work. Currently working with a landowner in the upper Big Hole to find funding to reduce the hazardous fuels around structures and thin the dense forest on the property to mitigate against fire and disease. Look for Ben's article, "**Upland and Forest Health is Watershed Health**," in this month's addition of the *Big Hole Breezes* for more information.
- BHWC recently received \$4,212 for lab analysis funds through DEQ's 2020 Volunteer Monitoring Lab Analysis Support Program. These funds will go toward water quality sampling and lab analysis costs associated with our DNRC Planning Grant proposal to investigate the Elkhorn Mine and Mill (upper Wise River). Our proposed project will look at potential ways to slow the flow of contaminated water coming from an active flowing adit and seeps that enter into Elkhorn Creek. We also wish to gain more insight to the level of contamination to the site. These DEQ VM Lab Analysis funds will go a long way in this effort.
- Last week, Ben helped MFWP harvest willows for a river bank restoration project outside of Wisdom. He will continue to help as the project progresses in May. We will be able to use the willow stinger pump Peter Frick (BHWC board member) donated to the BHWC a few years ago. It's a great tool for planting willow whips and stakes deep into the ground. Thanks again Peter and thanks to MFWP for giving Ben a chance to get some fresh air in these COVID-19 times.
- Lastly, I have been gearing up for another great field season and spring in the Big Hole. Looking forward to it!

New Business

- None

Special Topics:

- Please complete the Montana Stream Gage Survey:
 - Do you check stream gage data in Montana for flooding information, stream flow data, or water rights? 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 for people to use. 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. If we want to change that, we need to be able to show that these gages are valued and used by Montanans.

- The Stream Gage Data Users 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. Whether you are a rancher, farmer, water commissioner, tribal representative, watershed group, outfitter/guide, irrigator, or water rights holder, please complete the Montana Stream Gage Data User's Survey, which can be found here: <https://www.surveymonkey.com/r/95JZPPCC>.

Do you use streamgages?

**Take the
Montana
Streamgage
User's Survey**

Government *Watershed Group*
Irrigator
Yes you!
Tribal
Recreationist
Fisherman *Farmer/Rancher*
Guide

*We need to
hear from
you!*

**Help us
understand how
people and
organizations
use streamgage
data**

Scan the QR code on your
smartphone or visit the URL to take
the survey now!

www.surveymonkey.com/r/95JZPPCC

- Please pass this along to any friends or colleagues that also may be gage data users. We are working to get the survey out far and wide, apologies ahead of time for cross postings, and this potentially showing up in your email more than once.

Upcoming Meetings

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

Adjourn



BIG HOLE
WATERSHED COMMITTEE
Conservation Through Consensus.

Free Livestock Carcass Removal Offered Spring 2020 *in the Big Hole Valley*

CALL TO MAKE ARRANGEMENTS

John Costa: (209) 628-2225

The Big Hole Watershed Committee offers free carcass removal each spring, when mortality rates can be higher due to calving and lambing. We will meet you at your ranch with a dump truck and we ask that you help load the carcasses. We do this to remove predator attractant from the landscape in hopes of deterring livestock depredation. Carcasses are hauled to our compost site near Wisdom (next to the MDT maintenance shop). All information regarding livestock operations & mortality is kept confidential.

Bears are waking up in the Big Hole Valley...



Photo credit: Steve Heiland

Grizzly bear tracks were reportedly seen this past weekend west of Wisdom off the Foothills road, a sign of Spring and a reminder that bears are waking up around the Big Hole Valley.

With calving season underway, bears waking up across the landscape, and wildlife returning to the Valley, we want to let landowners, ranchers, and residents know that we have various tools and resources to help reduce conflicts with wildlife. The Big Hole Watershed Committee (BHWC) is partnering with People and Carnivores (P&C) to prevent conflicts with large carnivores throughout the Big Hole Valley, keeping people and their property safe and large carnivores wild. This is a good time of year to check around your property for anything that may attract a bear or other wildlife: pull down birdfeeders, store garbage inside hard-sided buildings or in a bear-resistant manner; and the same goes for other attractive items such as livestock feed and pet food. Barbeques and other smelly items can also attract bears and should be stored properly. Vulnerable livestock can be protected using electric fences.

BHWC offers free livestock carcass removal to ranchers in the Big Hole Valley (and in the Sage Creek area on behalf of the Centennial Valley Association), removing boneyards and carcasses that may lure carnivores to your property. With grizzly bear populations expanding and recent grizzly bear reports in the Valley, removing carcasses improves the safety of both people and livestock. Ranches interested in participating in the program can contact John Costa, BHWC Wildlife Program Technician, at 209-628-2225 or contact the BHWC for more information.

We also have conflict prevention tool kits available right now for ranchers to check out for free that come with various scare devices and information about ways to prevent conflicts. Tool kits can help protect vulnerable livestock during times of high risk like calving or lambing. Additional tools like electric fencing may also be available.

Bear-resistant garbage canisters are also available to any Big Hole Valley resident in need. These specialized containers can be used to keep bears and other wildlife from accessing garbage as well as livestock feed. Canisters are available on first-come, first-served basis.

For more information on any of the tools and resources mentioned, contact us at:



Big Hole Watershed Committee

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People and Carnivores

Kim Johnston, Field Project Manager

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Livestock Carcass Removal

John Costa, Wildlife Program Technician

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