



# Big Hole Watershed Committee

## Monthly Meeting Minutes

June 16<sup>th</sup>, 2021 – 7:00 pm at the Divide Grange  
*Zoom option also provided*

### In Attendance

*In-person:* Pedro Marques, BHWC; Tana Nulph, BHWC; Ben LaPorte, BHWC; Jarrett Payne, MFWP; Jim Hagenbarth, Rancher/BHWC; Max Hanson, UM/BHWC Intern; Paul Cleary, Resident/BHWC; Sandy Cleary, Resident; Matt Norberg, DNRC; Betty Bowler, Resident; Tom Bowler, Resident; Hans Humbert, Rancher/BHWC; Randy Smith, Rancher/BHWC; Jim Dennehy, Butte-Silver Bow Water Dept./BHWC; Thomas Woolf, MFWP; Scott Reynolds, Resident; Steve Luebeck, Sportsman/BHWC; and John Reinhardt, Rancher/BHWC.

*Zoom:* Charley (no last name given); Chris Edgington, MTU; and Paul Siddoway.

### Meeting Minutes

BHWC monthly meetings are now held at the Divide Grange with a virtual (Zoom) option provided thanks to Southern Montana Telephone Company, who donated the internet service. Meeting minutes and recordings are available at <https://bhwc.org/monthly-meetings/> (scroll down for meeting minutes archive). Printed copies are available during in-person meetings. Contact Tana Nulph, BHWC Associate Director, at [tnulph@bhwc.org](mailto:tnulph@bhwc.org) or (406) 267-3421 to suggest additions or corrections.

### Reports

*Streamflow/Snowpack Report as of June 16, 2021 – Matt Norberg, Montana Department of Natural Resources and Conservation*

- *Streamflows:* Streamflows in the Big Hole River have generally been below to well below average since the start of April. The bulk of the snowpack has melted off and the river peaked earlier and lower than normal. Daily average flows for this time of year are well below normal

Big Hole River Stream Gages			Gage height, feet	Dis-charge, ft <sup>3</sup> /s	Long-term median flow 3/17	Temper-ature, deg C
Station Number	Station name	Date/Time				
<b>■ UPPER MISSOURI RIVER BASIN</b>						
<a href="#">06023500</a>	Big Hole River near Jackson MT	06/15 11:15 MDT	1.91	85.9	201	--
<a href="#">06023800</a>	Big Hole River ab Spring Creek nr Jackson MT	06/15 11:00 MDT	1.89	54.0	158	--
<a href="#">06024020</a>	Big Hole River at Miner Creek nr Jackson MT	06/15 11:15 MDT	1.66	183	586	--
<a href="#">06024450</a>	Big Hole River bl Big Lake Cr at Wisdom MT	06/15 10:45 MDT	2.21	64.5	352	15.8
<a href="#">06024540</a>	Big Hole River bl Mudd Cr nr Wisdom MT	06/15 11:30 MDT	3.87	1,150	1,250	--
<a href="#">06024580</a>	Big Hole River near Wise River MT	06/15 11:30 MDT	3.76	1,220	2,570	17.4
<a href="#">06025250</a>	Big Hole River at Maiden Rock nr Divide MT	06/15 10:45 MDT	4.27	1,590	3,120	<a href="#">Ssn</a>
<a href="#">06025500</a>	Big Hole River near Melrose MT	06/15 11:15 MDT	2.86	1,480	3,350	16.1
<a href="#">06026210</a>	Big Hole River near Glen MT	06/15 11:30 MDT	3.59	1,850	2,870	<a href="#">Ssn</a>
<a href="#">06026420</a>	Big Hole R bl Hamilton Ditch nr Twin Bridges, MT	06/15 11:30 MDT	2.560	1,300	3,000	17.4

levels with most of the gages reporting streamflow's well below the 25th percentile with some even below the 10th percentile.

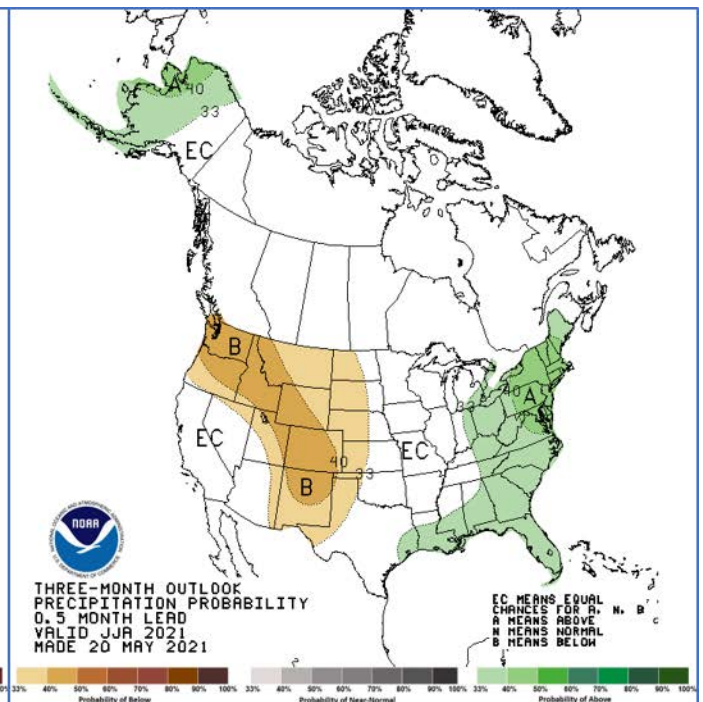
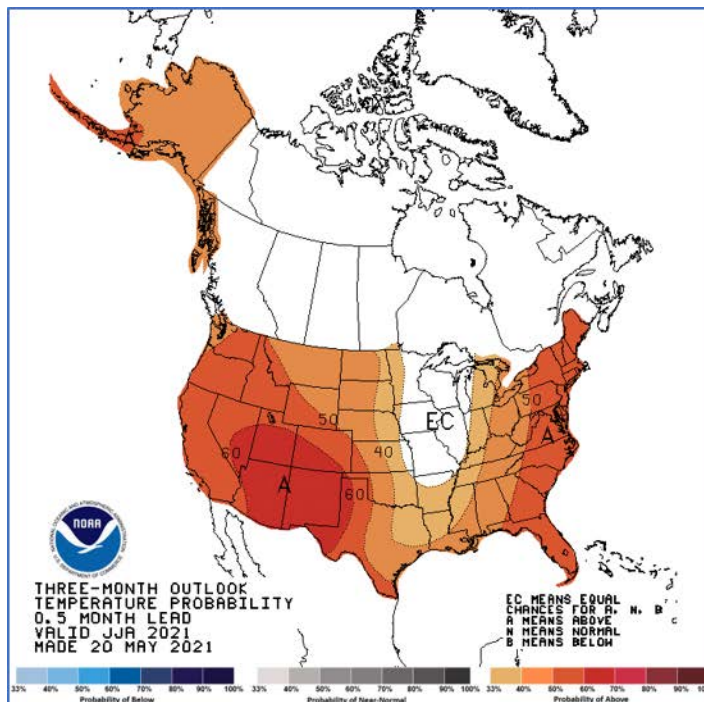
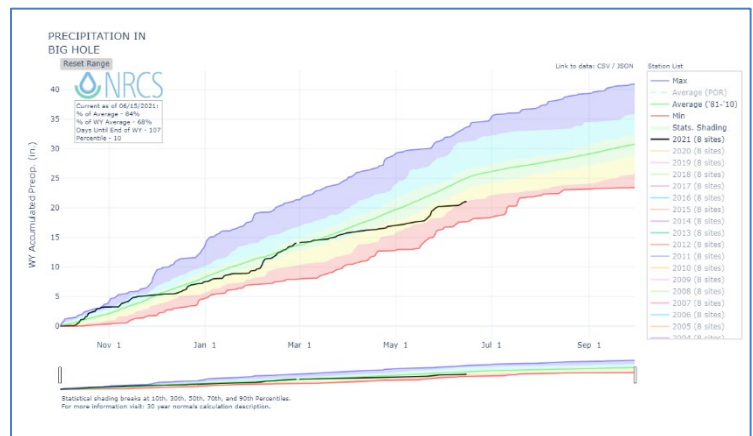
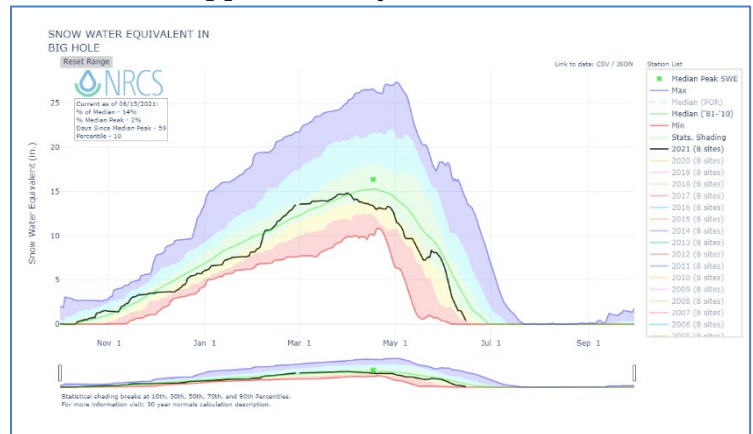
- **Snowpack/Precipitation:** Snowpack in the Big Hole is well below normal at 14% of median. The only SNOTEL site with SWE is Darkhorse Lakes at approximately 3.1" (6/15/2021), normal SWE for Darkhorse on 6/15/2021 is 16.90". Comparable years as of now are early 2000's.

- Precipitation YTD in the Big Hole is also below average at 84%. May and June are typically the wettest months of the year, but except for the storm in mid-May, the Big Hole watershed has seen dry conditions this spring.

- **Forecast:** With the transition to neutral ENSO conditions the forecast persists in Montana for above average temperatures and below average precipitation. Water shortages are expected to persist throughout the summer unless we get timely precipitation events from Mother Nature.

- From NOAA:

- ENSO Alert System Status: Not Active
- Synopsis: ENSO-neutral is favored through the Northern Hemisphere summer (78% chance for the June-August season) and fall (50% chance for the September-November season).



- *Discussion:*
  - *Do you know when we peaked (in terms of streamflow) this year?*
    - *At Melrose, we peaked June 3<sup>rd</sup> this year – about the same time as most years, but much less flow comparatively.*

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

- *FWP native fish management public comment letter: comment by July 11th*
  - *FWP seeking input on proposed brown trout regulations. See attached press release.*
    - *Catch and release only for brown trout*
    - *Spawning area closures*
    - *Standing Hoot Owl Restrictions July 1 – August 15 each year (regardless of conditions).*
  - *Survey: <https://surveymonkey.com/r/browntroutscoping.com>*
  - *Discussion:*
    - *Important for agency to hear overwhelming interest in this issue, whether for or against additional regulations. They need to know how important this is to local economies and communities. BHWC submitted public comment via letter,*
    - *Blanket Hoot Owl Restriction – have some misgivings because not EVERY year is a drought year. In a year with good flows in July, we would still have Hoot Owl restrictions and would have to go to the commission to request that they change the restrictions. Our Drought Management Plan already puts Hoot Owl restrictions in place when flows and temps require it. What's proposed is pretty much the opposite of that.*
      - *BHWC did not support or suggest blanket Hoot Owl restrictions in our letter.*
    - *I think this is MFWP's easy-out. This way they don't have to open and close sections as conditions change. This is something to pay close attention to when filling out this survey.*
    - *ALL of the rivers proposed are going to get the SAME treatment if these changes go through.*
    - *These proposed changes would take the control/management away from the people on the ground.*
    - *What if conditions require Hoot Owl conditions BEFORE July 1<sup>st</sup>?*
    - *MFWP used to encourage take of brown trout because browns are nonnative and compete with Arctic grayling – how does this play into the current situation?*
      - *Well, we need MFWP here to explain that to us. Tonight, they're all at the Anaconda Sportsmans' meeting. Maybe we should have a special meeting before July 11<sup>th</sup> – or a Steering Committee meeting – to discuss this further.*
    - *What about rainbow trout? Their numbers are down too. Why is all the focus on brown trout?*
      - *I thought rainbow trout numbers were increasing according to Jim Olsen's report last month?*
        - *That was just in one section of the river – overall, their numbers are down throughout the rest of the river.*
    - *We've had our Drought Management Plan for 25 years – now they want to do away with it, and if that happens, they will lose the goodwill and cooperation of the ranchers. It really upsets me that we've been doing this cooperatively for so*

*long – and it WORKS! – and now the government wants to come in and take over.*

- *If MFWP does this, are they going to ask all ranchers to put water back in the river every July 1<sup>st</sup> regardless of conditions?*
- *It's a lot of work to manage these rivers individually, but it's the right way to do it based on each river.*
- *Pedro: So, do we want to update the letter we've written?*
  - *Our letter should say that we've had Hoot Owl restrictions on the Big Hole for many years based on our DMP, and we encourage MFWP not to alter them, at least on our river.*
  - *Another option is to keep Hoot Owl restrictions on once they are in-place. It's a lot of work for MFWP to turn the restrictions on and off as conditions change.*
  - *Your comment about being really specific with the letter is important – this whole Hoot Owl thing is distracting from protecting the brown trout. We need to stay focused on what we DO recommend.*
  - *Other option: status quo/no changes – at this point, completely unacceptable.*
- *Do we need to add more specificity to the letter?*
  - *Yesterday's proposal changed everything. We need to address the 3 proposed management actions and ALSO let them know what is important to us.*
- *Are these proposed changes coming from a biological standpoint or a political/bureaucratic standpoint?*
  - *That's really hard to answer right now. There are a lot of conversations going on and it's a bit cloudy what's happening. Local management is an important solution – preferable to superimposed restrictions – and that's why it's SO IMPORTANT to provide your comments to MFWP.*
- *If we lose our local management of the river/our DMP, a lot of goodwill will be lost on the part of ranchers. That would basically disregard all of the effort we've put in over the years. Our ethic of shared sacrifice is what makes our river special.*
- *We need to know more about what's going on. What is causing the brown trout decline? It's tough to implement management actions without knowing the cause of the problem.*
- *All of our rivers in Montana are unique – this idea that “one size fits all” just doesn't work.*
- *Note: This year is the 3<sup>rd</sup> driest year (in terms of Big Hole River streamflows) after 1987 and 1994.*
- **Restoration Planning: 13 sub-watersheds (pictured right): Wise River first**
- **French Creek assessment and delisting – Max helping with this**
- **Partnership agreements:**
  - **USFS – Elkhorn (signed)**
  - **BLM – East Pioneers 2022 (working on it – riparian work)**
  - **MFWP – uplands in progress (continue work we've been doing on Mount Haggin)**
- **Montana Bureau of Mines – GWIP nomination: groundwater study – lower river water budget. Will inform potential irrigation updates in the lower watershed. Received letters of support**



from NRCS and DNRC (one pending from MFWP). Looking like a decent proposal and we should hear later this summer. Would be a 3-year study.

- Big Hole River Conservation Fund: Text “bighole” to 26989. Working on rolling this out with local businesses – will provide river users a way to give back.

*Steering Committee Report – Randy Smith, Chairman; Jim Hagenbarth, Vice-Chairman; Steve Luebeck, Treasurer*

- Steering Committee is so proud of the team we have working for us, they have done a wonderful job.

*Wildlife Report – Tana Nulph, Associate Director*

- BHWC will have table at Montana Range Days, June 21-23 in Dillon.
- 2021 Carcass Removal and Composting:
  - Free to Big Hole Valley Ranchers, Donations accepted
  - Funders: Vital Ground Foundation, NRCS CIG
  - Offered March-May
  - 2021: 47 carcasses removed (all cattle)
  - TEXT “Carcass” to 26989 for more information or to support the program with a donation.
- 2021 Range Rider Program:
  - July 1 – September 30
  - Chet Robertson monitors 6 USFS grazing allotments for 7 livestock producers.
  - Looks for predator activity, dead/injured livestock.
  - 2021: Chet media coverage
    - CIG Research Group interview
    - Upcoming film series
  - Funders: Livestock Loss Board, NRCS CIG
- 2021 Wildlife Speaker Series:
  - BHWC and Southwest Montana partners (Beaverhead CD/ Watershed Committee, Ruby Valley CD/ Watershed Council, Madison CD, Centennial Valley Association, and Ruby Habitat Foundation) are holding 3 virtual events this year.
  - Events begin at 6:30 pm and are expected to be done by 8:00 pm.
  - Click the links to pre-register.
    - [May 27: Pollinators \(watch recording\)](#)
    - ~~[June 24: Trumpeter Swans \(cancelled\)](#)~~



**GIVE BACK TO THE RIVER**


*Pay it forward for future generations!*

*We are a proud partner of the Big Hole Conservation Fund!*



**Invest 1% at cashier**

Every dollar will be matched and put to work through conservation and restoration projects.



*get to know your*  
**WILDLIFE NEIGHBORS**

**arctic grayling**

Presented by:  
Jarrett Payne, Montana Fish, Wildlife & Parks  
Ryan Kreiner, Montana Fish, Wildlife & Parks  
Jim Magee, US Fish and Wildlife Service


**A FREE SPEAKER SERIES**

**July 22nd, 2021  
6:30 PM**

Get to know your wildlife neighbors! This free and virtual speaker series connects community & wildlife in Southwest Montana.

**Zoom Information**  
https://us02zoom.us/j/9292848484

**CONTACT**  
Big Hole Watershed Committee  
406-287-3121  
info@bhwc.org



- [July 22: Arctic grayling](#) (hosted by BHWC, featuring Jim Magee, Jarrett Payne, and Ryan Kreiner)

*Restoration Report – Ben LaPorte, Program Manager*

- Anaconda Uplands – 3 weeks of hand crew work
- Elkhorn Mine and Mill
  - USFS participating agreement finalized
  - BoR planning grant awarded
- Began monitoring efforts in the French Creek watershed (DEQ)
- Upper French Gulch
  - RDGP grant awarded
  - Began monitoring
- Low-tech, Process-Based Restoration tour – Ben participated, learned a lot
- Lower River Streambank Stabilization project funded (MWCC)



**New Business**

- None

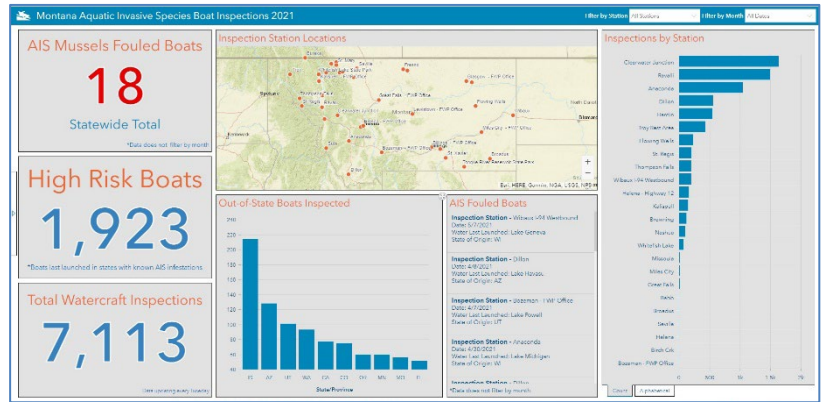
**Meeting Topic: Aquatic Invasive Species**

*Presented by: Thomas Woolf, AIS Bureau Chief, Montana Fish, Wildlife and Parks*

- What are Aquatic Invasive Species?
  - Nonnative plants and invertebrates
    - Mussels, clams, fish, snails, crayfish, and plants
      - Invasive mussels – don't have any populations in Montana right now and want to keep it that way!
    - Significant impacts
- AIS Impacts:
  - Environmental and economic impacts
    - Hydropower
    - Agriculture
  - Moved by us:
    - Hitchhikers (can survive for a month out of water in the right conditions – that's why MFWP has the Clean-Drain-Dry campaign to make sure mussels are addressed before they come into the state.)
    - Aquarium releases (can cause a lot of problems when dumped in the environment).
- How did they get here?



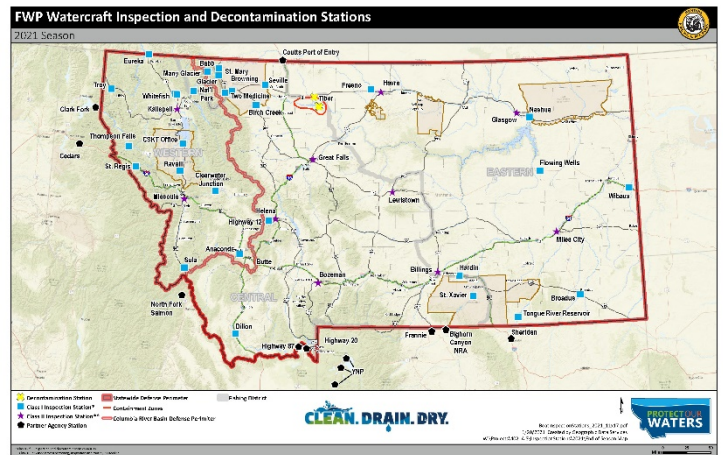
- 1988: Mussels introduced to the Great Lakes – quickly spread throughout the East Coast by 1998.
- 2007: Introduced to Lake Mead (CO) and into California
- 2017: In Tiber Reservoir (above the dam) – microscopic mussels seen twice before, but not again. This is the 5<sup>th</sup> year with no mussels since they were detected.



- Draw-down for irrigation kills a good portion of the population.

- Addressing AIS:

- 2017: mussels detected in MT
- Rapid AIS program expansion.
- Focus:
  - Prevention
  - Early detection
  - Education
- Prevention: Watercraft inspection
  - Ensure boats are **Clean, Drained, and Dry**
  - Educate boaters
  - Over 30 inspection stations operated by MFWP and 10 partners.

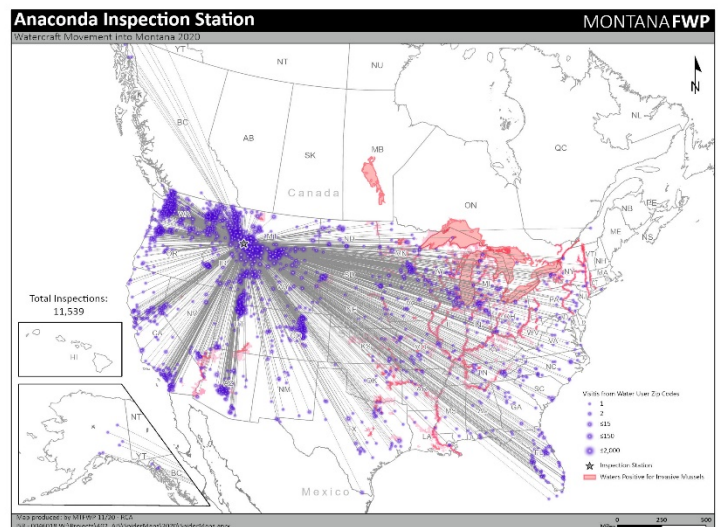


- Inspection stations:

- [CleanDrainDryMT.com](http://CleanDrainDryMT.com)

- 27 Mussel Fouled Vessels (as of June 8, 2021)

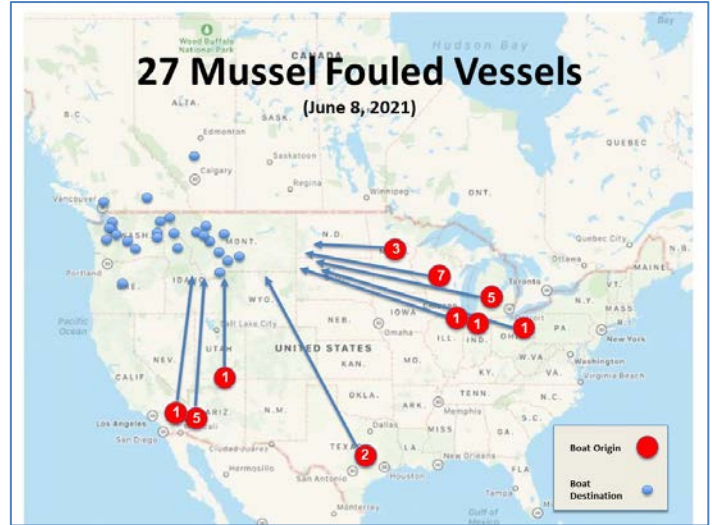
- Anaconda station has caught several boats this year. This is concerning because it means – if they’ve made it to Anaconda – they’ve missed another inspection station when they entered the state. About 1/2 of these boats are bound for Montana waters, the rest of moving through the state. Many come through at



night – MFWP considering doing night inspections, but it's a big lift (safety, staffing, etc.).

○ Early Detection Survey:

- Early detection increased chances for containment and/or eradication.
- Crews searching for AIS statewide.
- Seeking to expand partner involvement.
- We do have native clams and mussels in Montana, but they don't stick to things. If you see a clam-like thing sticking to your pipe or headgate, contact MFWP ASAP.



○ Plants

- Other species to be concerned about:

- New Zealand mud snails
- Eurasian milfoil
- Aquarium moss balls with Zebra mussels on them (distributed to every state in the U.S. from Ukraine, where Zebra mussels are native).

- Problem is if they're dumped in lakes or rivers.

○ MFWP works

with pet stores to expand the “Don't Let it Loose” message.

- Established program in local pet stores.
- Hope to expand to local events and local waters in 2021.
- Expand to ornamental pond retailers.
- Good message for partners to deliver.

○ *What about down the drain?*

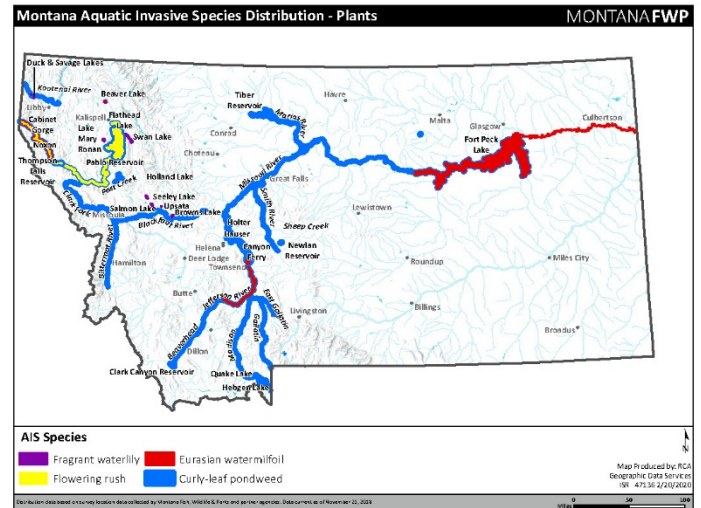
- *Septic/sewer can take care of these things. Should be fine.*

○ Education and Outreach:

- Statewide outreach campaign
- Clean. Drain. Dry.
- Don't Let it Loose.
- Customizable materials.
- Seeking partners to help get the word out!

○ Need your help:

- Learn about AIS.
- Get out and look.





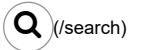
- Report suspicious things.
- Educate others on the risk of AIS.
- Host a workshop.
- Clean. Drain. Dry.
- *Discussion:*
  - *What do you do if you detect a boat with mussels?*
    - *Spray it with 140-degree water to kill mussels. They like to hid in the darkest, hardest to find location on the boat. Boat is locked to the trailer and sits to dry for up to 30 years to be sure there is nothing on it when it is launched again.*
  - *Who unlocks the boat?*
    - *MFWP does.*
  - *Do you keep the boat at the inspection station?*
    - *No, we use a cable lock and let them go home. They have to bring it back to get it unlocked.*
  - *Is there a fine if you have a mussel on the boat?*
    - *For unintentional transport, it's \$500. For intentional transport, it would be much higher, but that is a hard thing to prove.*
    - *\$80 fine to bypass an inspection station.*
  - *Do you see cooperation from other states?*
    - *Some but not most. Lake Powell (state?) has been pretty cooperative.*
  - *What is bad about these mussels? What do do they do?*
    - *They cover everything, including spawning beds. They're filter feeders, so they take up a lot of the food that other species need. They essentially take over and completely change the aquatic system.*
  - *Is there any biocontrol available for them?*
    - *Good question. They've done a lot of studies in Ukraine but haven't found a good pathogen or parasite that's been able to take the edge off their production.*
  - *How does Ukraine deal with them?*
    - *They're part of the background there. Their whole system, including irrigation infrastructure, is designed to account for the mussels. The economic impact of having to retrofit all of our irrigation infrastructure in the U.S. is part of the issue with these AIS.*
  - *How far down do you have to draw a reservoir to kill them?*
    - *To remove them entirely, you would have to drain it all the way. But by drawing it down each year, they are not able to reproduce enough to fully take over the system.*
  - *You're not inspecting waders are you?*
    - *No, we don't formally inspect them. It's kind of considered part of the "clean your stuff" advisory.*
  - *Any education related to bird dogs? They are in water all the time and could transport these.*
    - *No, just clean your dog.*
  - *Does any boat passing an inspection station need to stop or just those going into or out of Montana?*
    - *Yes, any boat passing by needs to stop, even if it's already been inspected or isn't leaving the state.*
  - *If you see a boat with mussels and it's bound for another state, do you let that state know?*

- *Yes, we contact them and let them know. They also have keys to the cable locks and can unlock boats once they arrive.*

### **Upcoming Meetings**

- BHC does not meet in July.
- August 18, 2021: **BHC Monthly Meeting. Topic: Conifer Encroachment**
  - 7:00 pm at the Divide Grange/Zoom

### **Adjourn**


[BUY AND APPLY \(/BUYANDAPPLY\)](#)

[HUNT \(/hunt\)](#)
[FISH \(/fish\)](#)
[STATE PARKS \(/stateparks\)](#)
[ACTIVITIES \(/activities\)](#)
[CONSERVATION \(/conservation\)](#)
[EDUCATION \(/educati](#)

## FWP SEEKS INPUT ON PROPOSED BROWN TROUT FISHING REGULATION CHANGES ON SOME RIVERS

Jun 15, 2021 10:48 AM

**HELENA** – Due to public concern regarding brown trout declines in some popular rivers in southwest Montana, Montana Fish, Wildlife & Parks is seeking public input on potential fishing regulation changes.

Studies conducted by FWP and the U.S. Geologic Survey suggest that flow is a primary limiting factor for many brown trout populations. Short-term trends have shown reduced numbers of small, juvenile brown trout in the Big Hole River, Ruby River, Boulder River (tributary to the Jefferson), Beaverhead River, upper Yellowstone River, Madison River, Shields River and upper Stillwater River (tributary to the Yellowstone). While the department will continue to address flow and habitat enhancement over the long-term, regulations may serve to reduce some population stressors over the short-term.

The regulation changes being considered include:

- **Adopt seasonal fishing closure to protect spawning brown trout** on some or all of the following rivers or sections of rivers and/or tributaries: Big Hole River, Ruby River, Boulder River (tributary to the Jefferson), Beaverhead River, upper Yellowstone River, Madison River, Shields River, and upper Stillwater River (tributary to the Yellowstone). This would adopt a seasonal fishing closure for all species from September 30 until the third Saturday in May to protect brown trout redds and reduce stress from angling.
- **Catch and release fishing only for brown trout** on some or all of the following rivers or sections of rivers and/or tributaries: Big Hole River, Ruby River, Boulder River (tributary to the Jefferson), Beaverhead River, upper Yellowstone River, Madison River, Shields River, and upper Stillwater River (tributary to the Yellowstone). No harvest for brown trout would be allowed year-round.
- **Implement standing hoot-owl restrictions from July 1 – August 15** on some or all of the following rivers or sections of rivers and/or tributaries: Big Hole River, Ruby River, Boulder River (tributary to the Jefferson), Beaverhead River, upper Yellowstone River, Madison River, Shields River, and upper Stillwater River (tributary to the Yellowstone). This regulation would limit fishing pressure to the coolest part of the day (midnight to 2 p.m.) with no fishing allowed from 2 p.m. to midnight.

More information and the opportunity to provide comment is available at <https://www.surveymonkey.com/r/browntroutscoping> (<https://www.surveymonkey.com/r/browntroutscoping>). In addition, FWP will conduct three public meetings:

- June 22 in Dillon at the DNRC Building at 6:30 p.m.
- June 23 in Butte at the FWP Area Office at 6:30 p.m.
- June 24 in Bozeman at Region 3 Headquarters at 6:30 p.m.

Public comment can also be sent to [FWPFishComments@mt.gov](mailto:FWPFishComments@mt.gov) (<mailto:FWPFishComments@mt.gov>) or FWP Fish Comments, P.O. Box 200701, Helena, MT 59620-0701. Deadline for public comment is July 11.

[BUY AND APPLY \(/BUYANDAPPLY\)](#)
[REPORT A VIOLATION \(/ABOUTFWP/ENFORCEMENT\)](#)

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