Big Hole Watershed Committee

Monthly Meeting Minutes

March 18, 2026 – 7:00 pm at the Divide Grange

Zoom option also provided

In Attendance

In-person: Pedro Marques, BHWC; Tana Lynch, BHWC; Karly Noetzel, BHWC; Luke Lutz, DNRC; Katelin Killoy, MFWP; Tom Bowler, Butte Resident; Monica Anderson, WRC; Jane Wierzba, Wise River Resident; Jim Olsen, MFWP; Dean Peterson, Rancher/BHWC; Steve Luebeck, Sportsman/BHWC; Jim Keenan, BSB Water Utility/BHWC; Sam Klusmeyer, Ripple; Jeannie Caddy, Divide Resident; Tom Caddy, Divide Resident; JM Peck, Rancher/BHWC; Paul Siddoway, Butte Resident; Katelin Killoy, MFWP; Kristina Kennedy, MFWP; Erik Kalsta, Rancher/WLA/BHWC; Jon Peterson, Rancher/BHWC; Chris Edgington, Montana Trout Unlimited; and Cass Kohler, TNC.

Zoom: Brooks Munyer, BLM- Butte Field Office; Danika Holmes, DNRC; Garrett Vasa, NRCS; Randy Smith, Rancher/BHWC, and Marieke Jeffrey, BHWC Summer 2026 Intern.

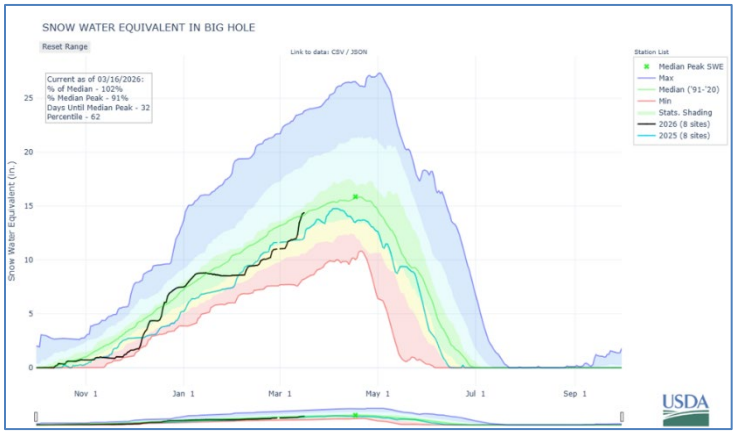
Meeting Minutes

BHWC monthly meetings are 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 Lynch, BHWC Associate Director, at tlynch@bhwc.org or (406) 267-3421 to suggest additions or corrections.

Reports

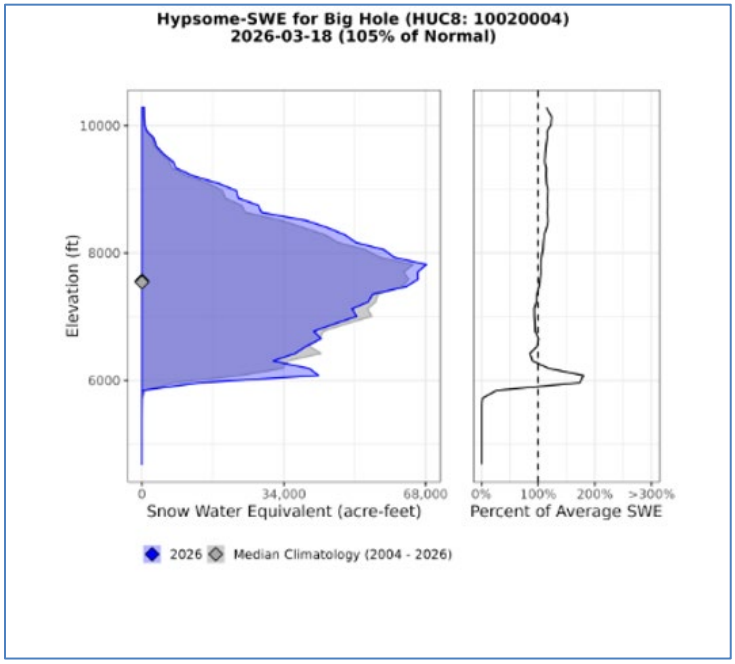
Streamflow and Snowpack Report – Luke Lutz, Department of Natural Resources and Conservation

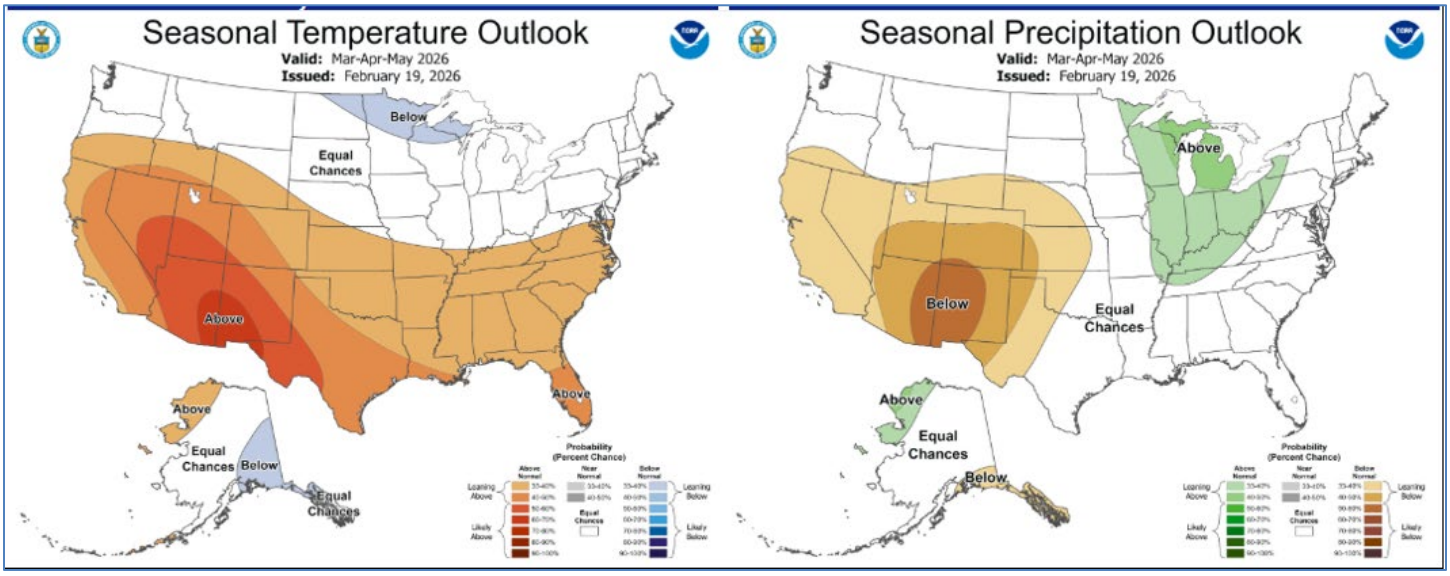
- *As of March 16, 2026*
- *Stream And Gage Explorer (StAGE):* https://gis.dnrc.mt.gov/apps/stage/
- *Snow Water Equivalent:* 102% of median
- *Precipitation:* 115% of median



- *Hypsome-SWE:* 105% of Normal
- *Climate Outlook (NOAA)*:
    - *Outlook*: The 8-14 day outlook predicts slightly above normal temperatures and near normal precipitation.
    - *Seasonal Outlook*: The seasonal outlook predicts equal chances of above or below normal temperatures and equal chances of above or below normal precipitation.
    - *ENSO Conditions*: A transition from La Niña to ENSO-neutral is expected in the next month, with ENSO-neutral favored through May-July 2026 (55% chance). In June-August 2026, El Niño is likely to emerge (62% chance) and persist through at least the end of 2026.
- *MT Drought and Water Supply Advisory Committee:* The Big Hole Watershed is characterized as moderately dry as of February 12, 2026.
- *U.S. Drought Monitor:* The Big Hole watershed is characterized as abnormally dry to moderate drought as of November 13, 2025.

Station	Network	Elev. (ft.)	Obs	NRCS Median	% NRCS Median
Barker Lakes	SNOTEL	8,250	10.3	11.8	87%
Basin Creek	SNOTEL	7,120	5	6.5	77%
Bloody Dick	SNOTEL	7,570	11.4	10.9	105%
Calvert Creek	SNOTEL	6,410	9.3	7.6	122%
Darkhorse Lake	SNOTEL	8,930	28.2	26.8	105%
Moose Creek	SNOTEL	6,170	13.3	15.3	87%
Mule Creek	SNOTEL	8,300	15.4	13.4	115%
Saddle Mtn.	SNOTEL	7,890	23.2	21.9	106%
Slagamelt Lakes	SNOTEL	8,600	*29.9*		
Basin Index					102%





Director's Report – Pedro Marques, Executive Director

- Job Openings
    - BHWC hiring up to 4 technicians for ground-truthing high meadow storage opportunities

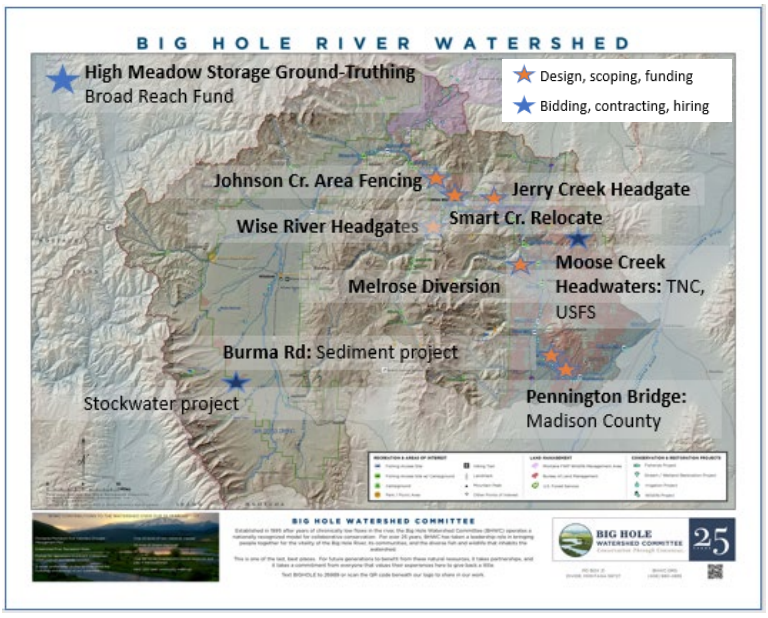
- Governing board openings
- Staff Mini-Retreat
    - April 1-2, Fairmont
- 2026 Drought Management Plan
    - For approval – **A quorum of board members was present, and the board decided by Consensus to approve the 2026 Drought Management Plan as recommended by the Big Hole River Drought Subcommittee.**
- Partnerships!!
    - GGTU Banquet – BHWC staff attended, and it was a great time! We encourage everyone to attend next year.
    - Upper Clark Fork talk – thanks, JM!
    - Watershed Planning
        - Comms team exercise at Covellite film screening
        - "You can always amend a big plan, but you can never expand a little one. I don't believe in little plans. I believe in plans big enough to meet a situation which we can't possibly foresee now." – Harry S. Truman

TEDx University of Montana Western

March 21st, 2026 | Beier Auditorium

University of Montana Western
710 S, Atlantic St. Dillon, MT 59725

- Pedro speaking at TEDx talk (March 21st at 4 pm)
- *Restoration Report*
    - NEXT UP:
        - Elkhorn Preserve/Lazy S Ranch
            - 3 miles of riparian planting/1 mile fencing
        - California Creek Flume Area
            - Mechanical treatment of eroding basin
        - Kamperschroer Riparian
            - Creating a spawning channel from ponds to river
        - Smith Sage Springs Reconnect
            - Phase 1 will install culverts; Phase 2
            - Ditch siphon to allow entire SS to connect to NF Big Hole
        - Elkhorn Mine and Mill
            - Mill structure rehab out to bid
            - Biofiltration demo this summer
            - 30% to 80% Design
        - Moose Cr. Headwaters
            - Pilot Beaver Transplant Site (pending commission approval)
        - Burma Road Sediment Project



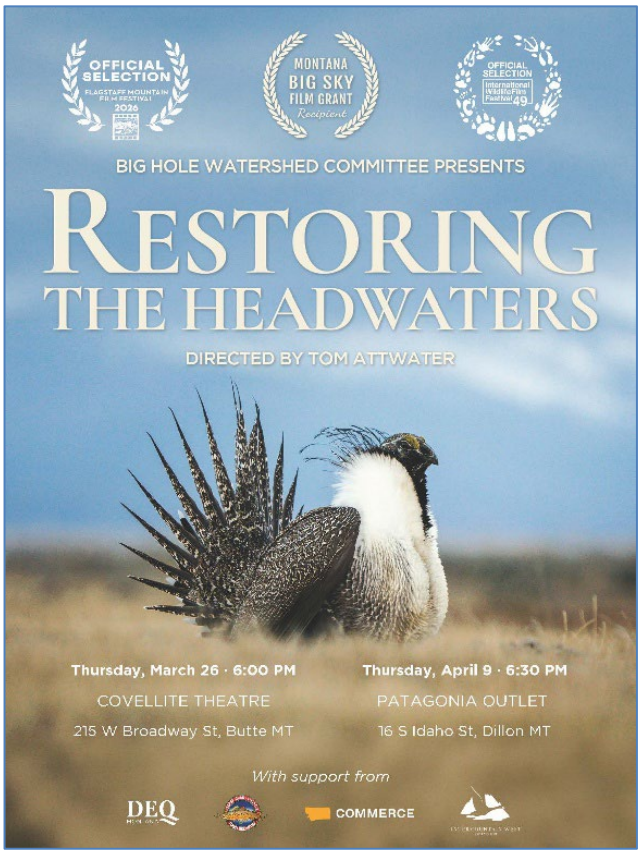
        - Proposed to DEQ 319 program
    - French Gulch
        - Maintenance on 2 step-pools
- IN-PROGRESS:
    - High Meadow Storage Capacity- WGM Group (Broad Reach Fund)

Steering Committee Report – Dean Peterson, Chair

- The steering committee is happy with the progress BHWC is making.

Communications and Wildlife Report – Tana Lynch, Associate Director

- Communications:
    - Shop to Support BHWC and get your own BHWC gear at bhwc.org/shop-to-support
    - Film screenings:
        - Restoring the Headwaters Film
            - Butte: March 26th at the Covellite Theatre
            - Dillon: April 9th at the Patagonia Outlet
    - Weekly drought updates:
        - Current streamflow
        - Temperature
        - River status by section
        - Long-term average flows
        - Text DROUGHT to 26989 & register
            - Also sent via email
            - Sign up at bhwc.org



- Wildlife:
    - Carcass Removal and Composting:
        - Now Operating
        - Carcass Pickup & Composting
        - Supporting Livestock Producers
        - Eric Lewis, Conflict Reduction Coordinator
            - Melrose-based
            - Contact:
                - 307-343-3803
                - elewis@bhwc.org
    - Range Riding:
        - Chet Robertson, Rider (2011)
        - 8 USFS allotments (7 producers)
        - July – September
        - Monitors: livestock condition, carnivore activity
        - Reports: Injured/sick/dead livestock, carnivore activity & approximate location
        - 2025:
            - No confirmed depredations on enrolled allotments
            - New 4-wheeler (thank you for your donations!)
            - $3,700 raised toward cost of 4-wheeler ($8K)
        - 2026:

        - Added 2 additional allotments
        - Starting season earlier (June 1)
        - Chet engaged in education & outreach
    - Wildlife-Resistant Transfer (Dump) Stations:
        - Wisdom, Jackson & Mill Point
        - Partnership: FWP, Beaverhead County, HRI
            - Vital Ground Foundation?
        - Secured lids + remote access
        - Cameras installed at all sites
        - Reducing bear attractants
        - Major win for grizzly & black bear conflict prevention

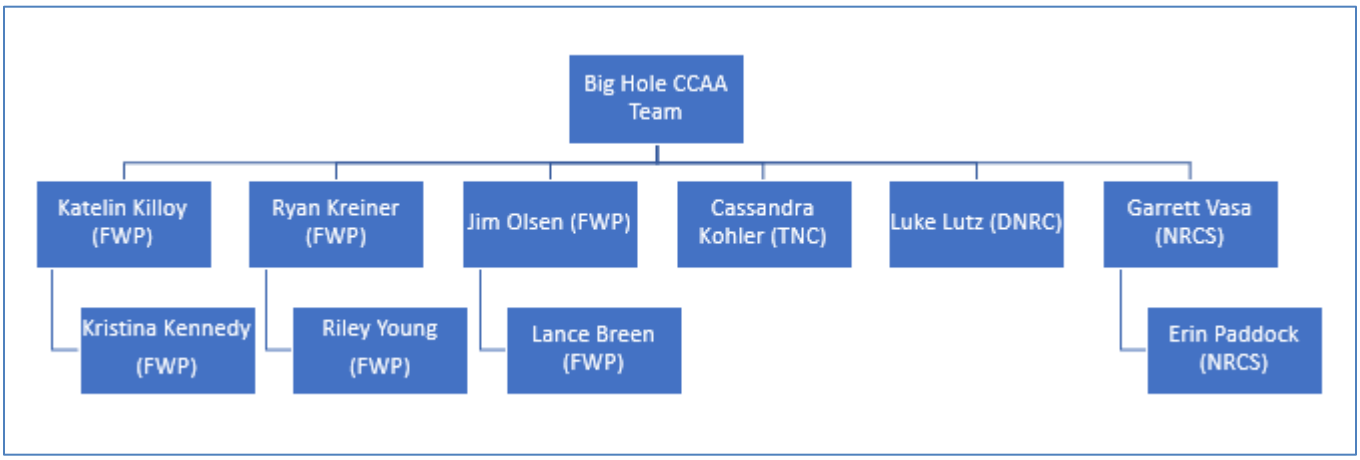
New Business

- None

Break – 10 minutes

Meeting Topic:
Upper Big Hole Arctic Grayling CCAA Update

Presented by:
Katelin Killoy, Montana Fish, Wildlife and Parks
Luke Lutz, Montana Department of Natural Resources and Conservation; and
Garrett Vasa, Natural Resources Conservation Service

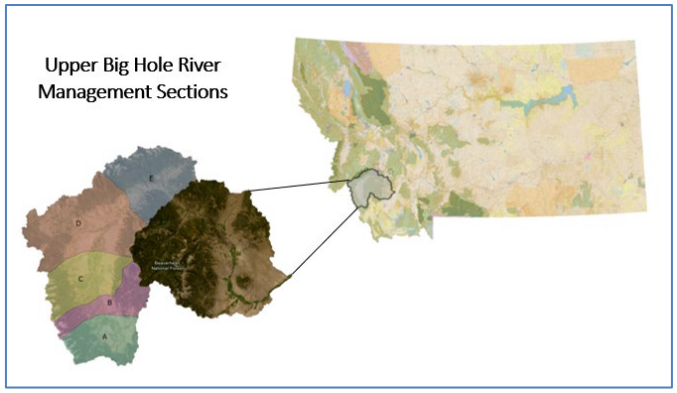


<u>CANDIDATE CONSERVATION AGREEMENT WITH ASSURANCES (CCAA) FOR FLUVIAL ARCTIC GRAYLING IN THE UPPER BIG HOLE RIVER</u>

- "The conservation goal of this Agreement (CCAA) is to secure and enhance a population of fluvial (river-dwelling) Arctic grayling (Thymallus arcticus) (grayling) within the upper reaches of their historic range in the Big Hole River drainage."
- Enrollment:
    - Non-Federal Land

- 31 Landowners
- 159,551 acres
  - 153,865 private land acres
  - 5,686 DNRC leased lands
- Consistent over time

- Achieved through 4 Conservation Measures:
  1. Improve Streamflows
  2. Maintain and improve instream and riparian habitats
  3. Remove sources to grayling entrainment
  4. Remove barriers to grayling migration



<u>Conservation Measure #1: Improve Streamflows</u>

- 2025 Big Hole Arctic Grayling CCAA Flow Strategy:
  - **Criteria for implementation of strategy by May 1st:**
    - <80% SWE for the Water Year 80% on May 1
      - <80% snowpack for valley floor to mid-elevations
      - <80% snowpack for high elevations
    - <80% Precipitation for the Water Year 87%
    - Higher than average air temperatures before May 1
    - Peak spring runoff starting earlier than May 1 (Average peak is ~ early June)
    - Climate forecast for May and June with less than average precipitation predictions

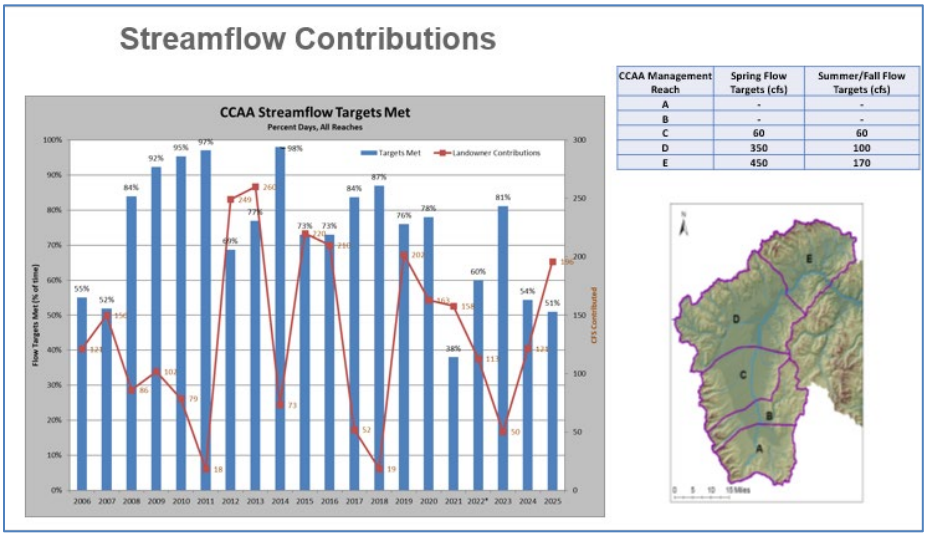
Target changes May 1st to June 30th

Reach	Normal Spring Target	Location	Drought Plan Target	Location
A	60 CFS	Miner Lakes Road	60 CFS	Wisdom
B	100 CFS	Miner Creek Confluence	60 CFS	Wisdom
C	160 CFS	Wisdom	60 CFS	Wisdom

Target changes July 1st to October 31st

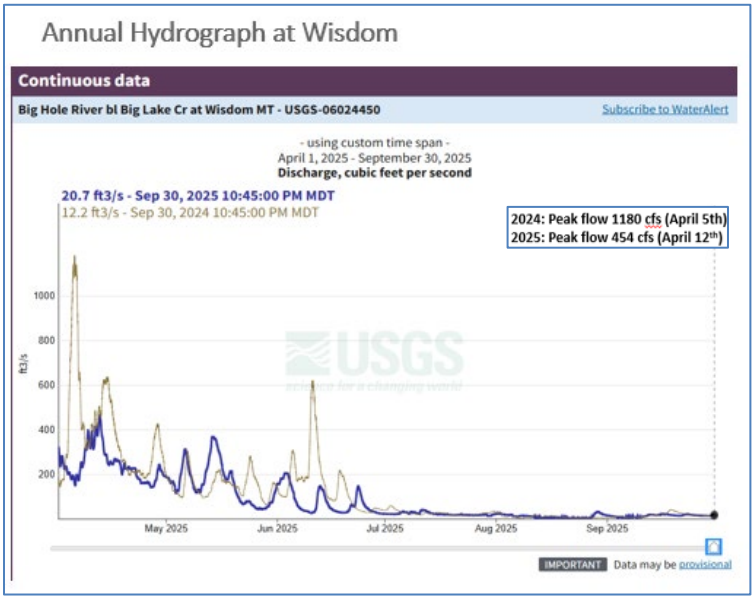
Reach	Normal Summer Target	Location	Drought Plan Target	Location
A	20 CFS	Miner Lakes Road	60 CFS	Wisdom
B	40 CFS	Miner Creek Confluence	60 CFS	Wisdom
C	60 CFS	Wisdom	60 CFS	Wisdom

  - **Flow targets met in 2025:**
    - 87% May 1-June 30 (A-C combined, 60 cfs target)
    - 51% May 1-Oct 31 (All reaches of CCAA)
    - 196 cfs in Landowner Streamflow Contributions
  - **Irrigation infrastructure monitoring completed in May through Sept 2025:**
    - 31 landowners monitored
    - 100+ measuring devices monitored and in good working order

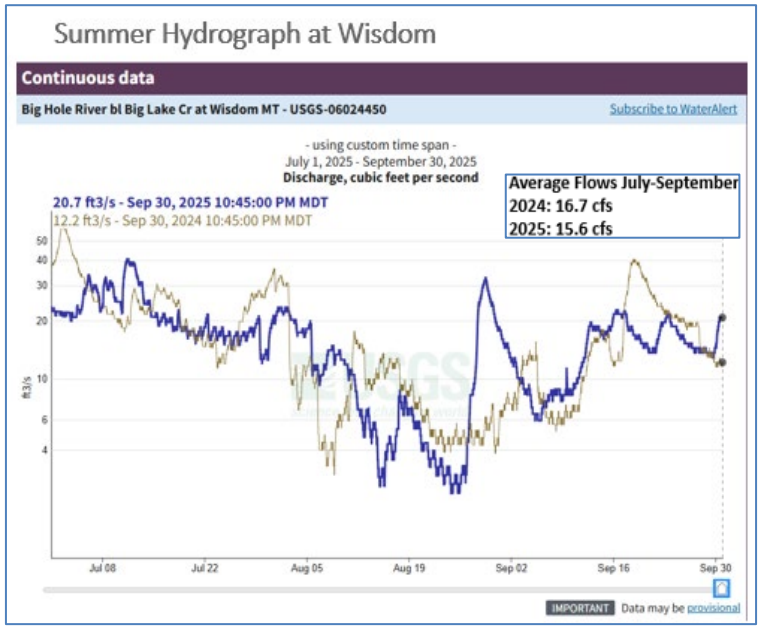


- Headgates checked during SSP compliance:
  - 80 spring/90 fall
  - Total checked in 2025: 214 headgates
  - Flow measurements: 106 flow measurement in Big Hole River and tributaries
- What do compliance runs provide?
  - Identify projects
  - Identify contributions (where water is)
  - Documenting landowners are following site plans

- **7 DNRC real-time stream gage sites:**
  - New Gage Location at Battlefield
  - New Gage Location nr Jerry Creek
  - Added 5 seasonal gaging locations to expand monitoring



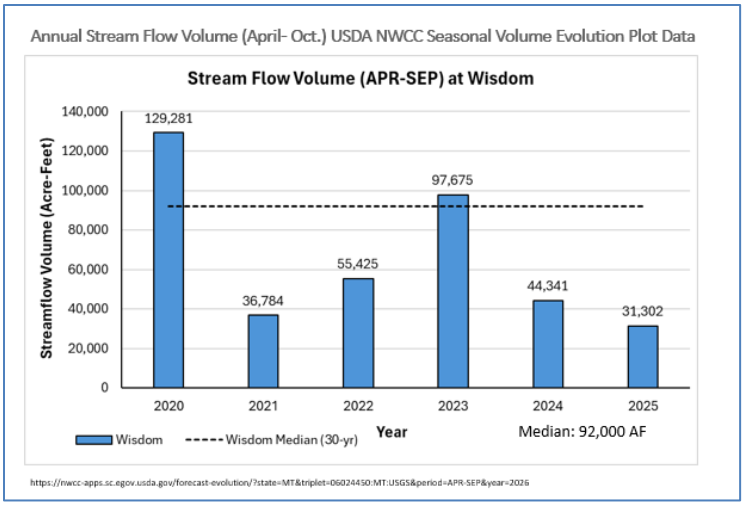
- **2026 Projections and Projects-Monitoring Expansion:**
  - New in 2025
    - Pintler Creek (2)
    - Plimpton Creek
    - Fishtrap Creek
    - Seymour Creek
    - North Fork Big Hole River at Battlefield
      - 41D 07150
  - 2026
    - Big Hole River nr Dewey, MT
      - 41D 09000
  - Goals
    - Create better max. diversionary rates for enrolled landowners
    - Better monitoring on occupied grayling distribution
    - Start collecting baseline data for potential project locations



- **Instream Flow Projects:**
  - Installation of off-site stock water systems
  - Updating irrigation infrastructure
    - Headgates

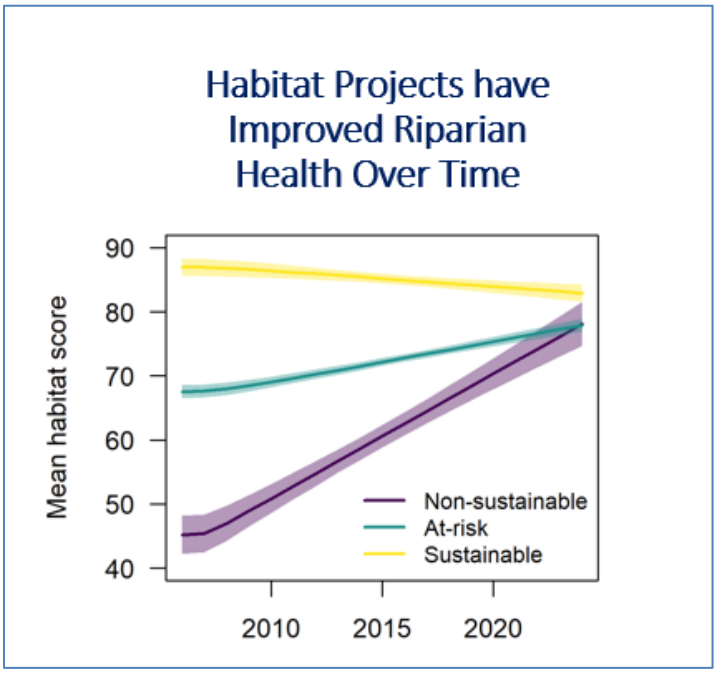
- Water check structures
- Flow measuring devices.

- 277 projects targeting instream flows since 2006



<u>Conservation Measure #2: Maintain and improve instream and riparian habitats</u>

- Riparian habitat is the floodplain along rivers and streams
- Streams with healthy riparian habitat have:
  - Lower stream temperatures from willow shading
  - Less turbidity from stable streambanks
  - Greater habitat complexity for grayling
  - Narrow channels with deep pools and available gravel
- NRCS Rapid Riparian Assessments:
  - Scores streams across 10 categories focusing on:
    - Vegetation
    - Stream Morphology
  - Rating Score Ranges
    - 0-49 Non-Sustainable
    - 50-79 At Risk
    - 80-100 Sustainable
- Methods to Improve Riparian Health:
  - Fencing
    - Steel Creek
    - Swamp Creek
  - Stock Water
  - Restoration
  - Willow Planting/Staking
  - Grazing Plans
  - **153** projects since 2006
- Governor Creek Streambank Restoration:
  - This project will repair 593’ of streambank by:
  - Sloping the banks to a minimum of 2:1
  - Transplanting willows every 25’
  - Willows will be staked 4 per foot
  - And transplanting wetland sod with 50% or more sedge species on the newly excavated sod bench.



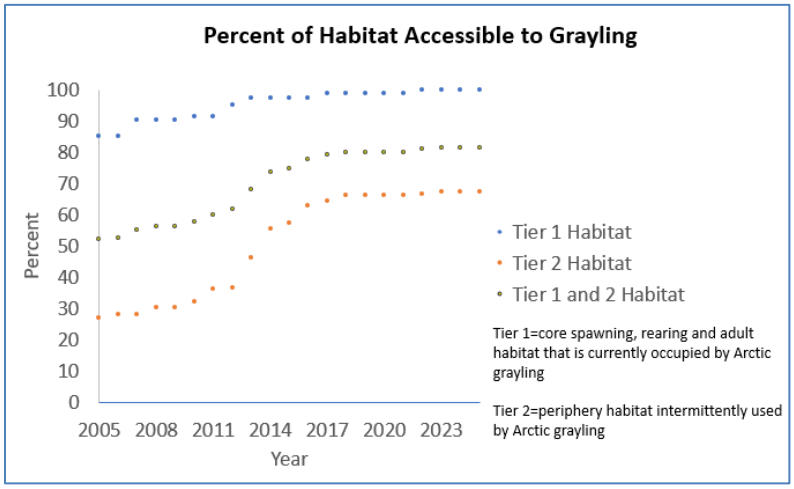
<u>Conservation Measure #3: Remove sources to grayling entrainment</u>

- Fish entrainment is the loss of fish when they are trapped in ditches due to irrigation off of streams.
- Since 2008 we have found grayling in only 5 ditches
- **4** fish entrainment projects involving fish screens and ditch bypass channels were completed
- Future projects include stockwater to reduce water diversions
- Stock Water Systems:
    - Provide a water source in upland pastures
    - Allow cattle to access water without needing to go to the stream in riparian pastures, which:
        - Reduces bank trampling
        - Reduces grazing on deep rooting species like willows or sedges
            - Reduces fine sediment input into the stream
            - Provides greater bank stability
            - Increases cover of willows
    - Natural Resources Conservation Service (NRCS) Assistance:
        - Types of Assistance:
            - Conservation Planning
            - Project Cost Share & Partnership Coordination:
                - Environmental Quality Incentive Program (EQIP)
                    - MFC (TIPs)
                    - Regenerative Pilot Program
                - Conservation Stewardship Program (CSP)
            - Farm Bill Programs (EQIP, CSP, MFC)
            - Engineering and Design
            - Technical Assistance:
                - Design and Planning Support
                - Practice Implementation Guidance
                    - Watering Facility (614), Water Well (642), Spring Development (574), Pumping Plant (533), Livestock Pipeline (516)
                - Job Approval and Quality Assurance
            - Cultural Resource Inventory
            - Public Outreach and Education
        - MT NRCS Target Implementation Programs:
            - Phase 1 – Upper Big Hole Stock Water Development
                - 2022 – 3 Participants
                    - $119,000
                - 2023 – 2 Participants
                    - $64,000
                - Totaling $183,000
            - Phase 2 – Wisdom Reach Stock Water Development
                - 2023 – 3 Participants
                    - $208,000
                - 2024 – 1 Participant
                    - $50,000
                - Totaling $285,000
            - Phase 3 – Wisdom Extension Stock Water Development
                - 2025 – 2 Participants
                    - $267,067

        - 2026 – 1 Participant
    - Future NRCS Funding:
        - Regenerative Pilot Program (RPP)
            - EQIP
        - Potential Future TIPs
        - Conservation Stewardship Program (CSP)
        - What Types of NRCS Projects Would Benefit the Big Hole Valley?

<u>Conservation Measure #4: Remove barriers to grayling migration</u>

- Barriers to fish Movement
    - Diversion Structures
    - Beaver Dams
- Fish Passage Projects:
    - Types of projects:
        - Headgates
        - Fish Ladders
        - Rock Step Pools
        - Culverts
        - Bridges
    - **136** projects since 2006
    - South Branch Big Swamp Bridge project:
        - No infrastructure previously which led to reduced riparian health conditions and a lack of fish passage
        - New bridge provides safe passage for vehicles and sufficient fish passage
        - 2.5 miles of habitat opened
    - NF Miner Creek Bridge project:
        - Old culvert was failing and a barrier to fish passage
        - New bridge provides safe passage for cattle trucks and sufficient fish passage
        - 1.5 miles of habitat opened
    - Beaver Dam Notching:
        - Beaver dams are notched right before grayling spawning to allow access to important spawning tributaries.
        - April 2025
            - Notched 17 dams on five tributaries
            - Opened 15 miles
        - Summer 2025
            - ~10 dams rebuilt



<u>So, what is next for the CCAA?</u>

- **RENEWAL!**
- However, the program's name has been changed to ***Conservation Benefit Agreement (CBA).***
    - The U.S. Fish & Wildlife Service made this name change and new program to combine two existing conservation programs: CCAAs and Safe Harbor Agreements.
- What's Changed?
    - The Big Hole CBA will operate the same as the Big Hole CCAA, except it will run for 50 rather than 20 years.

- All existing regulatory assurances will remain protected, and enrollment and site plans will carry over to the new program.
- The CBA will remain a completely voluntary program.

- Proposed CBA Drought Plan:
  - Needs:
    - Avoid shortfalls from non-enrollees and natural losses in losing reaches of Big Hole River
    - Provide enrolled landowners with adequate irrigation flow during critical growing periods while maintaining minimum short-term habitat needs for grayling
    - Provide flexibility for irrigators to coordinate timing and amounts of diverted flow and move water more effectively between reaches
    - Focus on maintaining the habitat most essential for grayling spawning and rearing within the mainstem and access to refugia tributaries
  - New Implementation Criteria:
    - NWCC Streamflow Forecast Tool:
      - Predictor variables:
        - Precipitation,
        - Snow Water Equivalent (SWE)
        - Antecedent streamflow (adjusted for consumptive use)
    - Palmer Hydrological Drought Index:
      - Tool to determine how influential current snowpack conditions can have when runoff conditions occur.
    - NWCC Median Peak Snowpack:
      - Median peak is April 17th for Big Hole Basin
      - Estimate pre-season conditions of water availability

Proposed CBA Drought Plan

Normal Flow Target Criteria			
Reach	Spring Target	Summer Target	Gage Location
A	60	20	DNRC- 41D 02000
B	100	40	DNRC- 41D 05000
C	160	60	(Wisdom) USGS-06024450

NWCC Stream Forecast	PHDI	Median Peak SWE
> 90%	> -2.0	> 95%

Stage 1 Drought Flow Target Criteria			
Reach	Spring Target	Summer Target	Gage Location
A-C	160	60	(Wisdom) USGS-06024450

NWCC Stream Forecast	PHDI	Median Peak SWE
75% - 90%	> -2.0	> 85%

Stage 2 Drought Flow Target Criteria			
Reach	Spring Target	Summer Target	Gage Location
A-C	60	60	(Wisdom) USGS-06024450

NWCC Stream Forecast	PHDI	Median Peak SWE
< 75%	< -2.0	< 85%

Upcoming Meetings

- Wednesday, April 15, 2026: BHWC Monthly Meeting
  - 7:00 PM at the Divide Grange Hall/Zoom – Topic: Flexible Grazing

Adjourn