



# Big Hole Watershed Committee

Monthly Meeting Minutes

June 21, 2018 – 7:00 pm

Divide Grange – Divide, Montana

## In Attendance

Tana Nulph, BHWC; Pedro Marques, BHWC; Travis Horton, MFWP; Sierra Harris, TNC; Jacqueline Knutson, FWP; Pamela Stock; Bill Stock; Sam Stone, Big Hole Ranch; Susan Stone, Big Hole Ranch; Sara Stone, Big Hole Ranch; Ryan Laughren, Big Hole Ranch; Paul Cleary, BHWC; Sandy Cleary; Roy Morris, BHWC/GGTU; Betty Bowler; Tom Bowler; Randy Smith, BHWC/Rancher; Jacob Smith; Vanna Boccadori, FWP; Sarah Ashworth, BHRF; Lee Toman; Craig Fager, FWP; Dean Peterson, BHWC/Rancher; Peter Frick, BHWC/Rancher; Steve Luebeck, BHWC/Sportsman; Scott Reynolds; Hans Humbert, BHWC/Rancher; Dan Kambich, Dave Stone, and Anaconda Sportsman Club.

**Introductions**      *Attendees introduced themselves.*

**Meeting Minutes**      *May 2018 meeting minutes were reviewed, no additions or corrections.*

## Reports

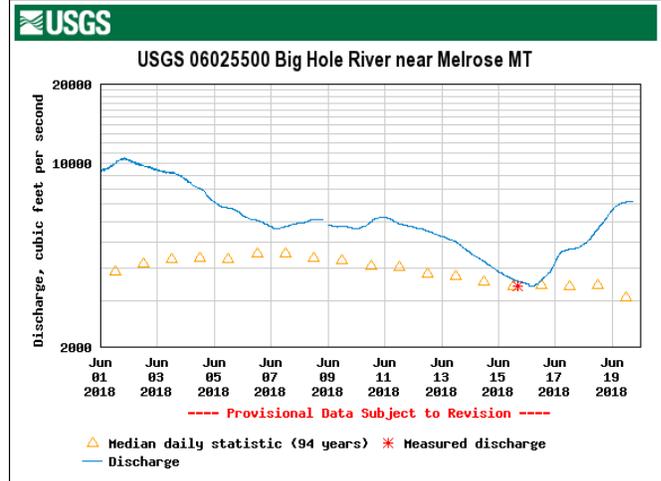
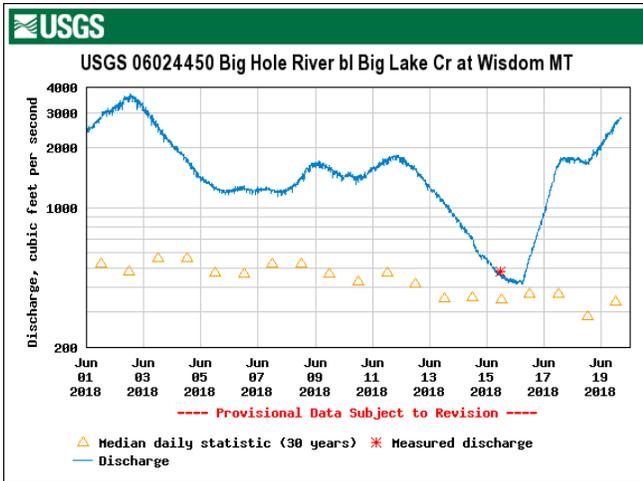
*Streamflow/Snowpack Report – Jacqueline Knutson, MFWP*

- **Streamflows:** Rapid snowmelt due to warm temperatures and abundant sunshine in May created high river volumes the past month and a substantial amount of our snowpack passed through the rivers of the Jefferson Basin by June 1st. Monthly May flow (total amount of water passing) at the Melrose gage was the third highest on record (95 years) and 438 thousand acre-feet passed the gage in May. The Big Hole remained at or near flood stage for most of May and early June. In the last week flows began to drop precipitously, especially in the upper basin, dropping to or below median daily flows at many gages. The last 5 days of precipitation has brought flows back up to well above normal. Expect flows to drop rapidly again when the rain stops since our snowpack did the bulk of its work in May. The abundant snowmelt during May has reduced the streamflow forecasts for the period from June 1st to September 30th to average or slightly below average.

<a href="#">06023500</a>	Big Hole River near Jackson MT	2.41	219	185	--	06/19
<a href="#">06023800</a>	Big Hole River ab Spring Creek nr Jackson MT	3.15	166	183	--	06/19
<a href="#">06024020</a>	Big Hole River at Miner Creek nr Jackson MT	3.71	810	867	--	06/19
<a href="#">06024450</a>	Big Hole River bl Big Lake Cr at Wisdom MT	5.81	339	2,810	13.7	06/19
<a href="#">06024540</a>	Big Hole River bl Mudd Cr nr Wisdom MT	5.66	1,010	4,160	12.1	06/19
<a href="#">06024580</a>	Big Hole River near Wise River MT	5.98	2,960	5,510	<a href="#">Ssn</a>	06/19
<a href="#">06025250</a>	Big Hole River at Maiden Rock nr Divide MT	6.90	3,910	6,960	--	06/19
		--	---	--	<a href="#">Ssn</a>	05/29
<a href="#">06025500</a>	Big Hole River near Melrose MT	5.76	3,080	7,130	10.8	06/19
<a href="#">06026210</a>	Big Hole River near Glen MT	6.19	2,520	8,060	<a href="#">Ssn</a>	06/19
<a href="#">06026420</a>	Big Hole R bl Hamilton Ditch nr Twin Bridges, MT	5.20	3,950	6,810	11.5	06/19

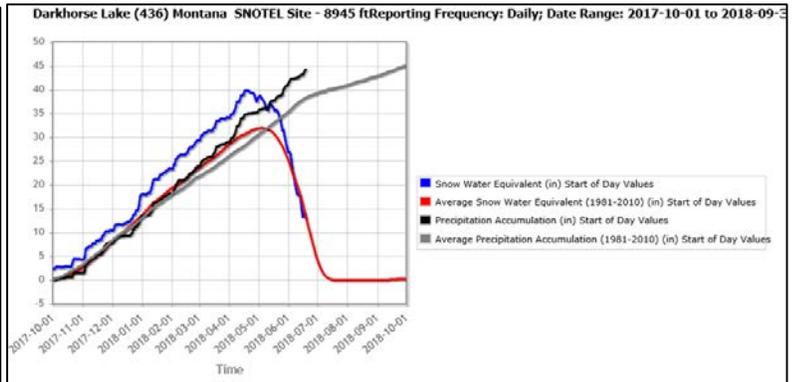
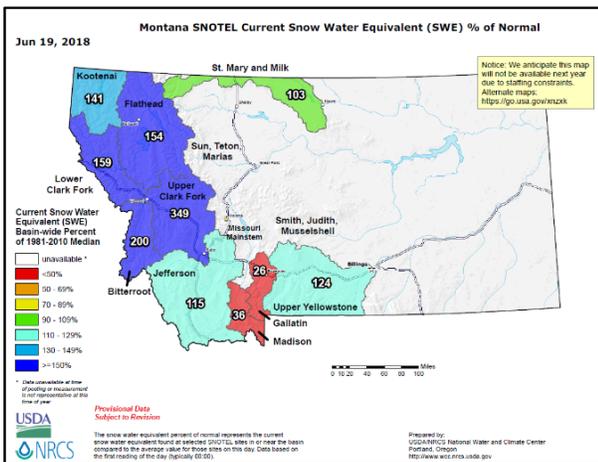
- **Snowpack:** The Big Hole Basin is at 113% of average; the Jefferson Basin is at 115% of average. Snowmelt this year started earlier than normal and has been rapid since it began. As we move forward into summer, this could be of concern. The promise of a record-setting snowpack delivering abundant water supply through the summer could easily turn into record-setting flows for a few months, and water shortages later in the summer much like last year. Snow disappeared rapidly in May with lots of sunshine and warm temperatures. There is still some snow at the highest elevations but the mid and lower elevation sites cleared out quickly in May. Darkhorse Lake has 29 inches of snow and 13 inches of snowwater equivalent which is just below average for this date. What was shaping up to be a strong snowpack through the early summer has left us and we're basically back to the same situation we were in this time last year. Therefore, the rest of this summer's water season is going to rely heavily on

precipitation events and our weather, rather than snowpack, will make or break river flows through the summer.

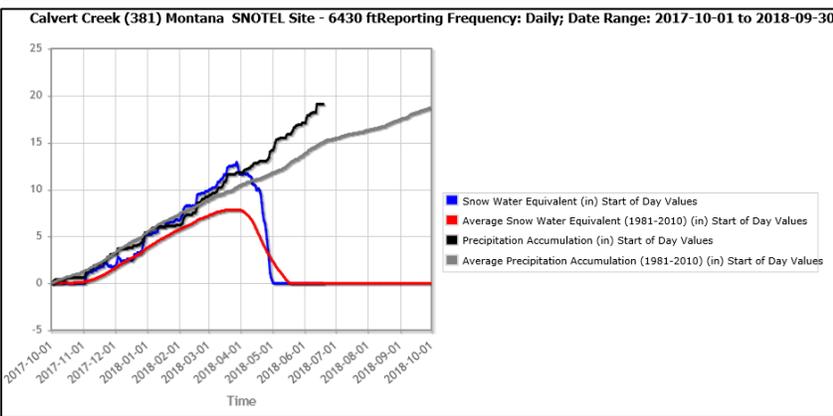


### Jefferson River Basin Data Summary

	Percent of 1981-2010 Normal (Median)	Last Year Percentage of Normal (Median)
<b>Snowpack</b>		
RUBY	90%	93%
BIGHOLE	113%	106%
BOULDER	124%	78%
JEFFERSON RIVER BASIN	102%	103%
<b>Basin-Wide</b>	%	%



- Precipitation:** May precipitation was below average in most of the Jefferson Basin although along the divide there were a few spots that recorded above average precipitation. The story in May was that precipitation was very hit-or-miss. There were plenty of sunny days and early June has followed that pattern, although the last few days have been a departure from the sunshine. The Bloody Dick SNOTEL station has received 0.90 inches of rain in the last two days and some sites in Beaverhead county have seen over 2 inches of rain in the last 5 days. This has certainly benefitted



streamflows but precipitation is expected to be below normal for the rest of the month and into the summer.

- *Temperatures:* A strong ridge of high pressure built up over most of the western United States this May and Montana felt the effects with above normal temperatures the entire month. Statewide, it was the warmest May since 1958.
- *Forecast:* ENSO-neutral conditions are here to stay through the summer and an El Nino Watch has been issued for the fall and winter. El Nino winters typically bring milder and drier winters to Montana so this is something to keep in mind. For the summer we are very likely going to see some of the same pattern as last year with warm and dry days coming our way.
- The three-month outlook currently favors average to below average precipitation and above average temperatures.

#### *Drought Management Plan – Jennifer Downing, Executive Director*

- The 2016/2017 version of the Big Hole River Drought Management Plan will stay in place for the 2018 season.

#### *Steering Committee – Randy Smith, Chairman and Roy Morris, Secretary*

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

#### *Wildlife Report – Tana Nulph, Conservation Programs Coordinator*

- *Carcass Management:* BHWC offered carcass removal to Big Hole ranchers March-May, 2018. Removed 44 carcasses and transported them to the new carcass compost facility at the MDT shop near Wisdom.
  - BHWC also provided carcass removal for the Centennial Valley this spring. USFWS provided fuel and the carcass removal dump truck; CVA paid our driver's salary for the Centennial portion of this year's carcass removal.
- The Upper Big Hole Range Rider program runs July 1 – September 30; Chet Robertson will be our range rider again for his 8<sup>th</sup> consecutive year.
- 2018 Wildlife Speaker Series event – Big Hole edition: Wednesday, July 25<sup>th</sup> at the Wise River Community Building. Dave Stagliano, Montana Biological Survey, will discuss Western Pearlshell Mussels and water quality. Potluck at 6pm, presentation at 7pm. Family friendly, free event!

#### *Restoration Report – Pedro Marques, Restoration Programs Manager*

- French Gulch project is looking really good post-restoration.
- Anaconda/Smelter Hills restoration plan moving forward though agency requirements, putting together bid request for a local contractor to do some great work.
- French Creek project design will start as soon as DEQ 319 money becomes available – looking to implement project next summer.
- East Divide Creek – restoring abandoned beaver complex by plugging holes in old, damaged beaver dams. Have installed surface and groundwater gages to measure conditions pre- and post-restoration and observe fluctuations in the hydrograph. Investigating potential of natural water storage projects.
- Big Hole River Incentive program – didn't do anything this spring, thankfully (because projects would have been washed away by flood water). Will implement 3 projects in the fall.

#### **New Business**

- Montana Public Radio is collecting story ideas for a new podcast they're producing focused on Butte. *More info on attached flier.*

# Special Presentation – Cumulative Effects of Private Ponds

Travis Horton, Montana Fish, Wildlife and Parks Region 3 Fisheries Manager

## History:

- 1993: Missouri River basin closed to new appropriations of surface water.
- Early 2000s: Missouri River basin closed to new appropriations of groundwater.
- Early 2000s: FWP and DNRC worked together to ensure private ponds have valid water rights prior to approval for stocking.

## Current Trends:

- Most new development of rural land in SW Montana includes private ponds.
- The majority of these ponds are developed using exempt wells.
- In some cases, the volume of these ponds are upwards of three times the annual volume allowed under the exempt well rules.

## Fish Sources:

- FWP regulates private hatcheries within Montana to ensure disease and AIS concerns are eliminated through annual inspections.
- In recent years, Montana FWP regulated 6 private hatcheries throughout the state to supply fish to private pond license holders.  
Problems began in 2000s when one hatchery became positive for New Zealand Mud Snails
- In the past 5 years, 4 private hatcheries have been quarantined due to the detection of Whirling Disease. Subsequently one of these 4 also tested positive for PKD.
- Two of the 4 quarantined hatcheries were forced to close, because they couldn't afford to make improvements needed to eliminate risks or they chose not to perform confirmatory testing for the parasite.
- FWP is aware of at least 2 situations where Whirling Disease was introduced or magnified the parasite due to pond stocking. Currently private pond owners are having to go out of state (Wyoming, South Dakota, Nebraska, and Idaho).

## Stocking Violations:

- Near Ennis, landowner installed 5 ponds and stocked fish without a permit. FWP was notified, the ponds were treated with rotenone, and the landowner was fined and ticketed heavily.

## Cumulative Effects Analysis:

- Trying to organization a coalition to guide, fund, and manage a cumulative effects study to advise MFWP on future of permitting ponds:
- Possible participants: All R3 Conservation Districts, Northwestern Energy, Local and State Trout Unlimited, other conservation groups.
  - ***BHWC will be invited to participate. FWP would like to have at least 1 BHWC representative.***
- Group to identify objectives of study, develop scope of work, solicit contractors, award contract, approve final deliverables, make recommendations to FWP regarding future of permitting ponds.

## Discussion:

- *How many private ponds are there in the Big Hole?*
  - *There's not that many in the Big Hole, but as land use changes, I wouldn't be surprised to see more.*
- *Are permitted ponds inspected every 10 years?*
  - *The permits are issued for a 10-year period, but they're not necessarily inspected each time the permit is new. They will be inspected if the biologist has a question or concern.*

# Meeting Topic: Big Hole Watershed Wildlife Update

*Vanna Boccadori, Montana Fish, Wildlife and Parks (Butte)*

*Craig Fager, Montana Fish, Wildlife and Parks (Dillon)*

*Background:* MFWP wildlife biologists will present updates on big game populations and research from around the Big Hole area.

## **Vanna Boccadori, Montana Fish, Wildlife and Parks (Butte)**

- HD 319 Elk
  - Trying to keep no more than 800 elk over-wintering on Fleecer. Have been slightly above that; trying to get that number down.
  - Harvest was really good in 2015 and 2017 but not great in 2016. Very driven by snow conditions.
    - 35% bull harvest 6pt or greater
    - 25% success on B licenses
    - 1,500 hunters
    - 11,100 hunter days
- HD 340 Elk
  - 2015: Implemented 9-day either-sex season
  - 2016-2017: Implemented 16-day either-sex season
  - Will continue at least through 2018 and 2019.
  - Harvest:
    -
- HD 334 Elk
  - BTB w/ 125 B licenses
  - Don't have a target population range in this district.
  - Harvest:
    - 40% bull harvest
- HD 321 Elk
  - 5-week either-sex season since 2008
  - Harvest:
    - 35% bull harvest 6pt or greater
    - 19% success on B licenses
    - 1,500 hunters
    - 9,000 hunter days
- HD 319 Mule Deer
  - Graph shows a lot of variation, which is likely due to when the deer were counted.
  - Harvest:
    - 41% buck harvest 4-pt or greater
    - 40% success on B license
- HD 340 Mule Deer
  - 2018 and 2019 will be either-sex on General License.
  - Harvest:
    - 37% buck harvest 4pt or greater
    - 39% success on B licenses
- Highlands Big Horn Sheep:
  - 12 groups
  - 82 total
  - 16 lambs
  - 46 ewes
  - 5\_¼ rams
  - 7\_½ rams
  - 6\_¾ rams

- 0 > ¾ rams
- 2 un cl
- Some of the older ewes are carriers of chronic pneumonia, which they pass on to their lambs. These ewes probably need to be removed.
- Black Bears:
  - 2018 Spring Black Bear Harvest in the Big Hole Area: 25-50 bears
- Grizzly Bears: There is potential to see more grizzly bears in the Big Hole watershed – please report any potential grizzly bear sightings to your local FWP Wildlife Biologist (BHWC would love to hear about it too!)
- Sage Grouse:
  - Upper Big Hole Sage Grouse Project:
    - Seasonal use of the valley and migratory status.
    - Nesting and brood-rearing habitat.
    - Genetic connectivity to SW MT and ID.
  - Lots of predation this year; primarily from dogs.
  - Will present information & results at BHWC monthly meeting in September.
- Montana Moose Study (2013-2023):
  - 30 adult females collared in each of 3 study areas:
    - Big Hole (population is declining – possibly due to disease)
    - Cabinet-Fisher
    - Rocky Mountain Front
  - Population growth rate:
    -
  - If you see any moose in the Big Hole that don't look right or are freshly dead, please contact Vanna so she can look at it. Trying to figure out what's killing Big Hole moose.
  - Fecundity: 76% in the Big Hole (explain fecundity)
    - Lower tick loads in the Big Hole than in other study areas.
  - Calf survival: only 44% survive until adulthood in the Big Hole.
  - Dropped cow tags in HD 323 (Jackson-Skinner Meadows) this year, in part due to population decline.
- Habitat improvements on Mount Haggin WMA:
  - ~2,000 acres grassland, aspen, sagebrush (August)

### **Discussion:**

- *Is there an elk management plan for 334 since it's a newer area?*
  - *No, our elk plan came out in 2004 and this district is newer than that, so it's kind of flying under the radar now.*
- *Do you track the wolf population?*
  - *Yes, we loosely track it. Nathan Lance captures and collars wolves, but it's kind of like lions and bears where we don't have solid numbers. The harvest has indicated that they are well distributed. 250 wolves were harvest across the state in the last hunting season; 24 were taken from the Continental Divide down to Monida; at least 10 were harvested in the Big Hole alone.*
    - *It seems anecdotally like there are more of them on the landscape.*
      - *They're always going to be here; when some are removed, others will come in.*
        - *Collared a wolf in the Grasshopper Valley last year and it was harvested near Birch Creek, so they're using their entire range and moving a lot.*
          - *Do you lose a lot of your collars to harvest?*
            - *Yes, they do not last long at all.*

### **Craig Fager, Montana Fish, Wildlife and Parks (Dillon)**

- Craig has an email list that he uses to share information regarding wildlife developments. If you're interested in receiving information RE: wildlife counts, etc., contact Craig at [cfager@mt.gov](mailto:cfager@mt.gov) to be added to his list.

- Pioneer Total Elk Population:
  - 3,352 elk
  - 26 calves: 100 cows
  - 19 bulls: 100 cows
  - 11 brow-tined: 100 cows
  - 9% increase from 2017; a surge in elk despite having a good harvest year.
- Harvest:
  - 1,318 elk
  - 584 bulls
  - 734 antlerless
  - 35% above 2016 harvest
  - 25% above long-term average harvest
- Mule Deer
  - Manage mule deer within modern and declining winter browse capacities.
  - Improve buck survival to adulthood through antlerless harvest being in replacement of, instead of in addition to, buck harvest.
  - Provide sustainable harvest opportunity.
  - Provide landowners with an unlimited tool to manage deer within individual tolerances.
  - Several check station locations set up.
  - Population trends:
    - ~33% increase in mule deer over the last 2 years.
    - 11% increase in mule deer year-over-year.
    - Fawn survival is very low – only about 20 fawns:100 does make it to adulthood.
  - Harvest:
    - Stable hunter numbers
    - Lower harvest year-over-year
    - Buck harvest is 25% below long-term average
    - Antlerless harvest is 48% below long-term average
  - Habitat projects:
    - Trapper Creek
    - Lost Creek
    - Christensen Creek
    - Scudder Creek
    - Badger Pass
    - Birch Creek
    - Black Mountain
- HD 310 Antelope
  - Population declined last year; FWP lowered license #s in response.
  - Surveying population every other year; will re-count HD 310 in 2019.
  - Harvest:
- HD 318 Antelope
  - Precipitous decline in population since 1987, but surveying methods were different (included larger area) in the late 1980s.
  - Used to be 2 districts, but were combined in the early 2000s. May need to divide back into 2 districts to be more responsive to population decline.
- Sage Grouse:
  - Survey every April
  - Have identified about 80 leks in Southwest Montana.
  - 476 males in 2018
  - 13% decrease from 2017
  - 1 new lek identified in 2018 (Horse Prairie)
  - Had some difficulty with lek surveys this year due to late snow, which may account for some of the 13% population decline from 2017.

- When compared with historic data going back to the mid-1960s (available for some leks), we've actually seen an 8% increase in sage grouse numbers.
- The overall sage grouse population in Montana has been declining, but the population in SW MT has held pretty stable.
- Sage grouse collared in Dubois, ID have been located in Lima Peaks, Medicine Lodge, and other areas in Montana. These collars have helped inform FWP RE: importance of habitat & potential habitat projects as well as migration activities.
- **Discussion:**
  - *Of the grouse collared last spring, how far have you seen them move?*
    - *They're not moving very far, but they have very low lek fidelity (they move leks but stay in the same general area).*
  - *What percent of fawn recruitment is needed each year for mule deer to maintain their population?*
    - *At least 20 fawns:100 does.*
  - *Are elk outcompeting mule deer?*
    - *Yes, elk easily outcompete mule deer.*
  - *So to obtain the objective of increasing the mule deer population, do we need to reduce elk numbers?*
    - *Yes, that's the idea.*

### Upcoming Meetings

- **July 25, 2018**, 6pm @ the Wise River Community Building. *Wildlife Speaker Series event.* Topic: Western Pearlshell Mussels & Water Quality.
- **August 15, 2018**, 5pm @ the Divide Grange. *Bear Aware Training.*
- **August 15, 2018**, 7pm @ the Divide Grange. *BHWC Monthly Meeting.* Topic: TBA.
- **September 19, 2018**, 7pm @ the Divide Grange. *BHWC Monthly Meeting.* Topic: Big Hole Watershed Sage Grouse Update.

### Adjourn

# Local Launch Party

for  
**RICHEST HILL**

a new project from  
 **Montana**  
Public Radio

exploring big changes and tough questions in Butte, America



Do you live in Butte?  
We want to meet you!

Tell us about *your* city.  
*Your* story.  
What's on *your* mind.

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Grab a [free] beer with **Montana Public Radio**  
+ chat with the team behind **Richest Hill**

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[www.buttepodcast.org](http://www.buttepodcast.org)

Wednesday, June 27th  
7-9 PM

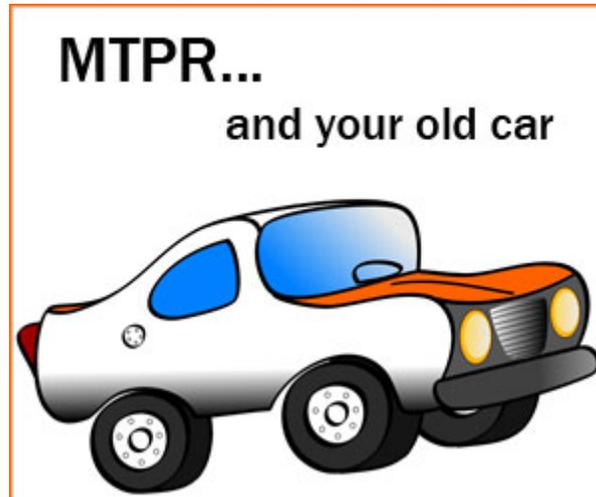
Covellite Theater Lounge  
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With support from the **Solutions Journalism Network**

Join Us For The Richest Hill Launch Party! Tell us about your Butte, your story, and what's on your mind. We can't wait to meet you.

Do you live in Butte? Do you care what happens to this extraordinary place?

Grab a [free] beer with Montana Public Radio and chat with the team behind Richest Hill (<https://buttepodcast.org/>), a new project all about the big changes and tough questions in Butte, America. Your input can help guide the new podcast.



Please join us on Wednesday, June 27, at the Covellite Theater Lounge (215 W. Broadway Street) from 7-9 p.m.

Butte is poised for a lot of action this year. It's a town going through a major transition while wrestling with big questions about its future. Our goal is to follow these developments closely and to look at Butte with a fresh perspective. We want to get to the heart of what's going on, and you can help us get it right.

Tell us about *your* Butte, *your* story, and what's on your mind. We can't wait to meet you.

**TAGS:** [BUTTE MONTANA \(/TERM/BUTTE-MONTANA\)](#), [MINING \(/TERM/MINING\)](#), [SUPERFUND \(/TERM/SUPERFUND\)](#)

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## WESTERN PEARLSHELL MUSSELS

COMMUNITY BUILDING | **WISE RIVER**

**JULY 25**

POTLUCK 6:00 • SPEAKER 7:00

**PRESENTER: Dave Stagliano, MT Biological Survey**  
Hosted by WCS Community Partnerships and Big Hole  
Watershed Committee. For more info contact Tana  
Nulph, 267-3421 or [tnulph@bhwc.org](mailto:tnulph@bhwc.org)

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