



## 2021 BROWN TROUT REGULATION ALTERNATIVES

In early 2021 members of the public voiced concerns regarding declines in brown trout in some Montana rivers. Through ongoing population monitoring and evaluation with Federal agencies the department has been working to identify limiting factors to these fisheries and one factor that has been identified is water flow. While addressing these limiting factors can take time, fishing regulations is one tool the department can use to attempt to stabilize and improve these populations.

Population monitoring indicates declining brown trout trends on the Big Hole River, Ruby River, Boulder River (tributary to the Jefferson River), Beaverhead River, upper Yellowstone River, Madison River, Shields River, upper Stillwater River (tributary to the Yellowstone River), and the Jefferson River.

To gauge public interest, the department offered four regulation alternatives for each waterbody: adopt seasonal fishing closure to protect spawning brown trout; catch-and-release fishing only for brown trout; implement standing hoot-owl restrictions from July 1 – August 15; or maintain status quo. Public comments were accepted from June 15 – July 11 via email and a survey on the FWP website. The Department also hosted public meetings in Anaconda, Butte, Bozeman and Dillon during the comment period which were all very well attended. There were 420 respondents to the survey and another 80 respondents via email or letter. All survey comments and correspondence are provided to the commission under separate cover.

Broadly speaking, most comments supported implementing more restrictive fishing regulations to preserve wild brown trout sport fishing opportunity. For most of the waterbodies seasonal fishing closures and catch-and-release fishing were generally supported. Many comments preferred the current practice of implementing hoot-owl restrictions on an as needed basis, rather than implementing a standing regulation that would be in place each summer. Additionally, there were many comments that supported implementation of gear restrictions, such as single barbless hooks or banning bait. Few comments supported maintaining status quo.

Following the public comment period, the department compiled all comments and convened a focus group to discuss comments and further develop alternatives for brown trout across several of the waterbodies. The focus group was comprised of 17 individuals from SW Montana Trout Unlimited chapters, Fishing Outfitters Association of Montana, and unaffiliated bait and fly anglers. FWP staff presented regulation alternatives and entertained open discussion with the focus group to further distill which regulations may be appropriate to consider for each river and/or river section. Notes from the focus group meeting are provided to the commission under separate cover.

FWP staff used all this information to develop a suite of alternatives for the commission to consider at its August 20 meeting. Listed below is rationale used to develop brown trout alternatives for each waterbody as well as three specific brown trout regulation alternatives for the commission to consider.

### **Rationale for Waterbody Alternatives**

Generally, public comments supported more restrictive brown trout regulations in order to maintain wild brown trout fisheries. Below is a brief discussion of rationale used by the department to determine potential biological relevancy for various regulation options for each of the rivers being considered.

Big Hole River: Much public concern regarding brown trout focused on the Big Hole River. Population monitoring and other research indicate that flow and water temperature are likely primary population drivers for brown trout, however, due to high angling pressure in the Big Hole implementing additional brown trout fishing restrictions may reduce stressors and impacts during key periods. Big Hole regulation alternatives can be found below.

Ruby River: Poor flows on the Ruby have been identified as the primary limiting factor to the brown trout fishery. Extremely low flows during the current drought are expected to impact the fishery over the next few fishing seasons and implementing restrictive regulations now would not be expected to have a population scale effect. Public comment supported implementing gear restrictions, such as barbless hooks or no bait fishing. Similar to other regulations, limiting the type of fishing on the Ruby is not expected to improve brown trout recruitment. Currently the department is not proposing a regulation alternative to the commission for the Ruby River.

Boulder River (tributary to the Jefferson River): Like the other rivers, low summer flow is a primary limiting factor to the brown trout population. A seasonal spawning closure could have localized benefits to discrete portions of the population but implementing a spawning closure would not be expected to substantially improve recruitment due to less angling pressure relative to other rivers. Similarly, enacting gear restrictions would not be expected to improve brown trout survival. Currently the department is not proposing a regulation alternative to the commission for the Boulder River.

Beaverhead River: Unlike other rivers, the Beaverhead already has a spawning closure in place for the section below Clark Canyon Dam to protect spawning rainbow trout. Extending that seasonal closure by 2 months in the fall could help reduce stress and impacts on brown trout during staging and spawning. There was discussion among the focus group to also evaluate effectiveness of other regulations (e.g., catch-and-release only) in other sections of the Beaverhead, but department staff determined that could lead to increased public confusion regarding where different regulations begin and end. Beaverhead regulation alternatives can be found below.

Yellowstone River: Although the Yellowstone sees high angling pressure, harvest of brown trout does not appear to be a substantial limiting factor to recruitment. A spawning closure would not be expected to influence the population as redds are distributed throughout the mainstem and

tributaries. Catch-and-release fishing is already prevalent throughout the river and mandatory catch-and-release would not be expected to improve recruitment. Criteria for drought related fishing restrictions (hoot owl restrictions) and closures are already in place and widely supported by the angling community. Many public comments supported gear restrictions but limiting the type of fishing allowed is not expected to improve brown trout recruitment on the Yellowstone. Currently the department is not proposing a regulation alternative to the commission for the Yellowstone River.

Madison River: Compared to other waterbodies, the Madison River did not receive as much support for implementing additional fishing restrictions for brown trout (although many comments did support catch-and-release). Most anglers fishing the Madison already practice catch-and-release, and implementing a mandatory regulation is not expected to improve recruitment. Seasonal fishing closures could have influence on discrete river sections but would not be expected to substantially improve overall recruitment. There was strong public support to implement gear restrictions on the Madison, but such restrictions would essentially limit the type of fishing to fly fishing only and would not be expected to improve brown trout survival. The department implemented a standing hoot owl restriction on the lower river in 2020 and would prefer to leave that in place for a few more fishing seasons to determine the effectiveness of that regulation. Currently the department is not proposing a regulation alternative to the commission for the Madison River.

Shields River: Flows and temperature appear to be the primary limiting factors to wild brown trout recruitment in the Shields, and with relatively low fishing pressure implementing more restrictive fishing regulations is not expected to benefit brown trout recruitment. Currently the department is not proposing a regulation alternative to the commission for the Shields River.

Stillwater River: A seasonal fishing closure may have localized benefits to brown trout but would not be expected to substantially improve recruitment. Fishing regulations were changed to the Central Fishing District combined trout standard on the Stillwater in 2020 because specialized regulations were no longer effective due to prevalence of catch-and-release fishing. Re-implementing restrictive regulations would not be expected to improve the fishery. Currently the department is not proposing a regulation alternative to the commission for the Stillwater River.

Jefferson River: The Jefferson River was inadvertently left off the online survey, but there were still a few comments related to the Jefferson. Until flow issues are better addressed on the Jefferson, changes to the fishing regulations are not expected to improve recruitment. There could be some local benefits to a seasonal spawning closure but impacts from the current drought will likely carry over several fishing seasons and implementing additional fishing restrictions now would not be expected to have a population scale effect. Currently the department is not proposing a regulation alternative to the commission for the Jefferson River.

### **Regulation Alternatives**

Based on public comments, biological evaluation, and simplicity of regulations, the department believes that changes to brown trout regulations have the potential to be most effective on the Big Hole River and the Beaverhead River. Below is a suite of three alternatives for these rivers,

organized from least to most complex regulation. Alternative 2 would be recommended by the Department as having the most biological relevancy.

## **Alternative 1: Status Quo**

### **Beaverhead River – Status Quo**

Page 54:

#### **Entire river**

- Combined trout: 5 daily and in possession, only 1 over 18 inches and only 1 may be a Rainbow Trout.

#### **Clark Canyon Dam to Pipe Organ Bridge**

- Open third Saturday in May through November 30.

**Summary:** This is the current regulation as it appears in the 2021 Fishing Regulations. Recreation rules on the river are not displayed but remain in place and can be found in the regulation book.

**Expected Benefits:** By keeping the regulations the same the public would not have to adapt to changes. There would be no changes to fishing opportunity.

**Concerns:** This alternative does not address potential angling issues with wild brown trout population declines.

### **Big Hole River – Status Quo**

Page 56:

#### **Fishing Regulations**

#### **Entire river**

- Catch-and-release for Arctic Grayling.

#### **Headwaters to Dickie Bridge**

- Combined trout: 5 daily and in possession, no size restriction.

#### **Dickie Bridge to Melrose Bridge (Salmon Fly FAS)**

- Artificial lures only; maggots allowed December 1 to the third Saturday in May.
- Catch-and-release for trout December 1 to the third Saturday in May.

#### **Melrose Bridge (Salmon Fly FAS) to the mouth**

- Catch-and-release for trout December 1 to the third Saturday in May with artificial lures and/or maggots.

**Summary:**

This is the current regulation as it appears in the 2021 Fishing Regulations. Recreation rules on the river are not displayed but remain in place and can be found in the regulation book.

**Expected Benefits:** By keeping the regulations the same the public would not have to adapt to changes. There would be no changes to fishing opportunity.

**Concerns:** This alternative does not address potential angling issues with wild brown trout population declines.

## **Alternative 2: Brown Trout Spawning Closures**

### **Beaverhead – Brown Trout Spawning Closures**

Page 54 change:

#### **Entire river**

- Combined trout: 5 daily and in possession, only 1 over 18 inches and only 1 may be a Rainbow Trout.

#### **Clark Canyon Dam to Pipe Organ Bridge**

- Open third Saturday in May through ~~November~~ *October 31*.

**Summary:** This alternative would close the fishing season on the Beaverhead on November 1 through the third Saturday in May. The existing regulation is intended to protect spawning and rearing rainbow trout in or on redds. Extending the closure by one month extends that same protection to spawning brown trout. Recreation rules on the river are not displayed here but remain in place and can be found in the regulation book.

**Expected Benefits:** This is a relatively simple change that is expected to reduce impacts to brown trout staging to spawn or already spawning. Additionally, it would reduce disturbance to spawning redds once eggs are in the gravel. There are known high concentrations of spawning fish in this river stretch and this regulation may improve recruitment by protecting those highly vulnerable fish.

**Concerns:** Shortening the fishing season would limit angling opportunity. Anglers on the Beaverhead would have to adjust to the new season. Implementing a brown trout spawning closure might not improve the wild brown trout population.

### **Big Hole – Brown Trout Spawning Closures**

Page 56 change:

#### **Fishing Regulations**

##### **Entire river**

- Catch-and-release for Arctic Grayling.

##### **Headwaters to Dickie Bridge**

- Combined trout: 5 daily and in possession, no size restriction.

##### **Dickie Bridge to BLM Maiden Rock**

- Artificial lures only; maggots allowed December 1 to the third Saturday in May.
- Catch-and-release for trout December 1 to the third Saturday in May.

##### **BLM Maiden Rock to Brownes Bridge FAS**

- Open third Saturday in May through *October 31*.

##### **Brownes Bridge FAS to the mouth**

- Catch-and-release for trout December 1 to the third Saturday in May with artificial lures and/or maggots.

**Summary:** This alternative implements a full angling closure from BLM Maiden Rock to Brownes Bridge FAS. Existing regulations for exceptions in other sections would remain in place to keep restrictions for artificial lures and maggots in place (changing gear and bait restrictions have not currently been scoped by the public). Recreation rules on the river are not displayed but remain in place and can be found in the regulation book.

**Expected Benefits:** Implementing a full closure from Nov 1 through the third Saturday in May will hopefully benefit brown trout recruitment and provide additional protection to spawning and rearing rainbow trout. The Maiden Rock to Brownes Bridge section is the section of river with the highest density of Brown Trout. The closure is limited to this section to minimize impact to anglers while protecting the primary brown trout spawning area.

**Concerns:** Implementing a seasonal closure will limit fishing opportunity. Implementing the fishing closure November 1 could be after peak brown trout spawn, making adult fish more vulnerable to angling.

## **Alternative 3: Big Hole River Brown Trout Mixed Regulations**

### **Big Hole – Brown Trout Mixed Regulations**

Page 56 change:

#### **Fishing Regulations**

##### **Entire river**

- Catch-and-release for Arctic Grayling.

##### **Headwaters to Dickie Bridge**

- Combined trout: 5 daily and in possession, no size restriction.

##### **~~Dickie Bridge to Melrose Bridge (Salmon Fly FAS)~~ *BLM Maiden Rock Recreation Site***

- Artificial lures only; maggots allowed December 1 to the third Saturday in May.
- Catch-and-release for trout December 1 to the third Saturday in May.

##### ***BLM Maiden Rock Recreation Site to Brownes Bridge FAS***

- *Artificial lures only; maggots allowed December 1 to the third Saturday in May.*
- *Rainbow Trout: Catch-and-release for trout December 1 to the third Saturday in May.*
- *Brown Trout: Open April 1 through September 30.*

##### **~~Melrose Bridge (Salmon Fly FAS) to the mouth~~**

- ~~Catch-and-release for trout December 1 to the third Saturday in May with artificial lures and/or maggots.~~

##### ***Brownes Bridge FAS to Tony Schoonen FAS***

- *Rainbow Trout: Catch-and-release December 1 to the third Saturday in May with artificial lures and/or maggots.*
- *Brown Trout: Catch-and-release only all year, December 1 to the third Saturday in May with artificial lures and/or maggots.*

### ***Tony Schoonen FAS to the mouth***

- *Catch-and-release for trout December 1 to the third Saturday in May with artificial lures and/or maggots.*

**Summary:** This alternative adjusts the river sections to better correspond with population monitoring sections and maintains status quo in the upper river (headwaters to BLM Maiden Rock Recreation Site), implements a brown trout spawning closure from BLM Maiden Rock Recreation Site to Brownes Bridge FAS, implements catch-and-release only year around for brown trout from Brownes Bridge FAS to Tony Schoonen FAS, and maintains status quo from Tony Schoonen FAS to the mouth. Recreation rules on the river are not displayed but remain in place and can be found in the regulation book.

**Expected Benefits:** This alternative would implement treatment sections to evaluate and compare the effectiveness of regulations to improve wild brown trout populations. The adjusted river sections in the regulations correspond with nearby population monitoring sections so any population scale changes might be better detected by annual monitoring. If one treatment (regulation) is deemed more effective than another, that treatment may be implemented in other sections or rivers.

**Concerns:** Regulations under this alternative are complicated, may have low compliance and could be a challenge to enforce. Population monitoring is intended primarily to detect population trends and may not have the precision needed to detect population changes due to the fishing regulation. This alternative may not directly address the issue of declining wild brown trout populations through regulations.