



## Montana Fish, Wildlife & Parks

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Dear Blackfoot Basin Junior Water Users,

Since 2000, Montana Fish, Wildlife and Parks (FWP) has managed and enforced the state's instream flow water right (Murphy Right<sup>1</sup>) with heavy reliance upon a) the *Blackfoot Drought Response Plan* (Drought Plan) and b) the Drought Committee's recommendations provided under that plan. This plan places emphasis on voluntary individual conservation actions (*Individual Drought Response Plans*) and a shared benefit / share sacrifice concept.

Traditional enforcement options (making a "Call for Water") are also guided by this plan. In the past, enforcement of this instream water right through a call has been limited to:

- The late irrigation season but only when Blackfoot River discharge (flow), as measured at the Bonner gauge, is below 700 cfs;
- Only non-domestic uses of junior water rights<sup>2</sup> are called; and
- Only water users who choose to not develop a *Drought Response Plan* and were **not** already participating in the basin's drought response plan.

Over the winter, the Blackfoot Drought Response Committee reviewed the 2015 drought response activities, drought conditions and overall drought plan effectiveness. Those discussions led to edits of the 2015 drought plan. In addition to the traditional enforcement options mentioned above, the plan now includes the following:

***If flows in the Blackfoot River at Bonner fall below 500 cfs, the Committee and FWP will:***

- *Implement outreach activities necessary to inform water users and the general public of ongoing drought conditions and re-confirm that junior water users are participating through response cards, email, personal communication and/or field checks.*
- ***Notify all water users whose individual drought response involves a water trade in which there is less than a 1-to-1 exchange of senior water rights for junior water***

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<sup>1</sup> Murphy Rights are statutorily approved instream flow water rights. The Blackfoot Water Right is documented by thirteen *Statements of Claim for Existing Water Right*, all having a priority date (date of development) of January 6, 1971. Each claim has a unique flow rate. The 700 cfs claim is 76F 98985 00.

<sup>2</sup> Under Montana's water law, water rights are prioritized by the date of development. When a water right is defined as junior, it means that this right developed more recently than the right it is being compared to. So a water right junior to the State's instream flow right is one that was developed after January 6, 1971. A senior right is one that was developed before January 6, 1971.

***rights, that FWP is making call on their junior rights.<sup>3</sup>***

- *Consider, along with MT FWP, if fishing restrictions in addition to those already in place are necessary to protect fisheries, or are needed to be consistent with the Drought Response Plan's shared sacrifice approach to water conservation. Areas considered for angling restrictions should include those where angling in combination with low water could affect fish survival.*

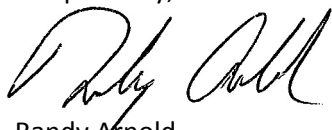
FWP is very interested in the continued participation in this voluntary and collaborative effort to manage water low flow and drought years. FWP's assessment of the river fishery indicates that flow conditions at or below of 500 cfs severely compromise trout habitat and threaten the health of the trout fishery. Thus, a 200 cfs reduction in flows (700 cfs minus 500 cfs) represents an important management trigger during severe drought years.

Unfortunately, this summer's stream flow projections are similar to that of 2015. As a result, it is very likely that the drought plan will be implemented within the next week(s). FWP and Blackfoot Challenge are both committed to working with all the stakeholders to help offset effects of drought on all plan participants. In the near future, we expect the Blackfoot Drought Response Committee to be contacting water users looking for drought plan updates. Be sure to make note of any water exchanges / mitigation actions that you may have incorporated into your Individual Drought Plan.

If you have questions, related to Fish Wildlife and Parks participation in the Drought Plan please feel free to contact FWP Water Conservation Specialist, Mike McLane (444-1563) or the Blackfoot Challenge (793-3900).

Finally, FWP Fisheries staff is prepared to meet with water users to explore long-term water conservation measures to the mutual benefit of water users and fisheries. In some cases, the conservation plans can result in creative solutions that could substitute for individual drought plans. Please contact Ron Pierce (542-5532) if interested.

Respectfully,



Randy Arnold,  
Region 2 Supervisor

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<sup>3</sup> A 1 to 1 water trade occurs when a senior water users reduces or ceases the use of a senior water right by an amount that is, at minimum, equal to the flow and volume of water utilized by their junior water right. Many drought plan participants currently utilized this water trade strategy.

| Table 1   | Blackfoot River Discharge <sup>1</sup><br>&<br>Blackfoot Drought Low Flow Plan Trigger Flows, 2000 - 2015 |  |                  |                  |                  |                  |                  |                  |                   |                  |                   |                    |                  |                         |              |             |
|---|---|--|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|-------------------|--------------------|------------------|-------------------------|--------------|-------------|
|   | Attribute   | Year (dates are expressed as month/date) |                  |                  |                  |                  |                  |                  |                   |                  |                   |                    |                  |                         |              |             |
|   | 2000  | 2001                                     | 2002             | 2003             | 2004             | 2005             | 2006             | 2007             | 2008              | 2009             | 2010              | 2011               | 2012             | 2013                    | 2014         | 2015        |
| Drought Plan Implemented  | Yes   | Yes                                      | No <sup>2</sup>  | Yes              | Yes              | Yes              | Yes              | Yes              | No                | No               | No <sup>3</sup>   | No                 | No               | Yes                     | No           | Yes         |
| Water Year Ranking <sup>4</sup><br>(Driest year is ranked as #1.) | 18 <sup>th</sup>  | 9 <sup>th</sup>                          | 36 <sup>th</sup> | 21 <sup>st</sup> | 16 <sup>th</sup> | 17 <sup>th</sup> | 32 <sup>nd</sup> | 20 <sup>th</sup> | 37 <sup>th</sup>  | 50 <sup>th</sup> | 11 <sup>th</sup>  | 77 <sup>th</sup>   | 56 <sup>th</sup> | 28 <sup>th</sup>        | 62           | 19          |
| Flow =/<br>1000 cfs   | 7/15 <sup>5</sup>   | 7/12                                     | 7/30             | 7/13             | 7/18             | 7/18             | 7/15             | 7/9              | 7/31              | 8/1              | 7/21              | 8/25               | 7/28             | 7/17                    | 7/31         | 6/29        |
| # Days Between<br>1000 cfs &<br>700 cfs                           | 12  | 25                                       | 24               | 11               | 13               | 14               | 13               | 14               | 56                | 23               | 29                | 63                 | 21               | 20                      | 36           | 17          |
| Date Flow<br>=/<br>700  | 7/27  | 8/7                                      | 8/23             | 7/24             | 7/31             | 8/1              | 7/28             | 7/23             | 9/25 <sup>6</sup> | 8/24             | 8/19 <sup>7</sup> | 11/27 <sup>8</sup> | 8/18             | 8/6                     | 9/5          | <b>7/16</b> |
| Date Flow<br>=/<br>600 cfs  | 8/2   | 8/12                                     | 9/14             | 8/1              | 8/11             | 8/9              | 8/5              | 8/3              | 10/31             | 9/3              | 9/25              | 12/10              | 9/6              | 8/16                    | 9/23         | 7/23        |
| # Days 700<br>cfs to 600 cfs                                      | 6   | 5  | 23               | 8                | 11               | 8                | 8                | 11               | 36                | 10               | 37                | 13                 | 19               | 10                      | 18           | 7           |
| <b>Date Flow<br/>=/<br/>500</b>                                   | <b>8/20</b>   | <b>8/22</b>                              | <b>10/24</b>     | <b>8/30</b>      | <b>NA</b>        | <b>8/29</b>      | <b>9/6</b>       | <b>8/29</b>      | <b>NA</b>         | <b>9/26</b>      | <b>11/22</b>      | <b>NA</b>          | <b>NA</b>        | <b>8/31<sup>9</sup></b> | <b>12/29</b> | <b>8/9</b>  |
| #Days<br>between<br>600 cfs to<br>500 cfs                         | 18  | 10                                       | 40               | 29               | NA               | 20               | 32               | 26               | NA                | 23               | 27                | NA                 | NA               | 15                      | 97           | 17          |
| # days<br>between 700<br>cfs & 500 cfs                            | 24  | 15                                       | 63               | 37               | NA               | 28               | 40               | 37               | NA                | 33               | 64                | NA                 | CA               | 25                      | 115          | 24          |
| Date Flow<br>= 450 cfs  | 11/19   | 8/30                                     | 11/25            | 10/8             | NA               | 12/1             | 11/1             | 8/26             | NA                | 12/1             | 11/23             | NA                 | NA               | 11/23                   | 12/30        | 8/18        |
| Date Flow<br>= 400 cfs  | 12/8  | NA                                       | 12/19            | 12/28            | NA               | 12/7             | 12/19            | 12/28            | NA                | 12/2             | 11/24             | NA                 | NA               | 12/4                    | NA           | 9/27        |

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<sup>1</sup> Monitored at USGS Gauge, Blackfoot near Bonner Montana

<sup>2</sup> The 2002 summary report, based on provisional stream flow data state, *“As noted above stream flows as measured at USGS stream gage Bonner MT did fall below 700 cfs on August 24<sup>th</sup> (695 cfs). Weather was cool and stream temperatures did not become extreme. A short duration but well-timed precipitation period occurred on the 26<sup>th</sup>. This precipitation raised flow and held flows in the high 600’s actually rising above 700 cfs on Sept 8.”* The current record of approved data shows flows recovering but not above the 700 cfs trigger although close.

<sup>3</sup> Committee did send out notices and asked for the development of drought plans for the year. Late season rainstorms pulsed through the basin. The Committee did not implement the drought plan. However, a late August email from the Committee did ask water users to whenever possible conserve water but fell short of implementing the Low Flow plan.

<sup>4</sup> Water year ranking is defined by the annual average discharge as measured at the Bonner USGS stream gauge. The driest year, that with the lowest average annual discharge, is ranked as #1. The wettest year, that with the highest average annual discharge was ranked as #77. (This sheet has not been updated to include water yields of 2014 and 2015. 2015 is still provisional.)

<sup>5</sup> Dates are expressed as month and day, for example July 15, 2001 is shown as 7/15.

<sup>6</sup> Flows went below 700 on the August 19, 2008. Stream flow continued to fall reaching 684 cfs on August 20th. By August 21 precipitation pushed stream flows to 758 cfs. Stream flows continued to rise to 891 cfs on September 4<sup>th</sup>. On September 25<sup>th</sup>, stream flows fell below as stayed below 700 for the remainder of the 2000 calendar year.

<sup>7</sup> In 2010, flows fell below 700 cfs for 3 day in early August (8/7 to 8/9) when rain drove flows to a high of 869 cfs. Flows regressed to less than 700 cfs on August 19. Another rain pushed flow back above 700 cfs on September 10<sup>th</sup> for three days after which flows quickly regressed falling below 600 cfs on Sept. 25<sup>th</sup>.

<sup>8</sup> In 2011, flows fell below 700 cfs briefly from 9/28 to 10/4 hitting a low of 681 cfs. On the 5<sup>th</sup> stream flows went above 700 cfs and stayed at that level until 11/27/2011.

<sup>9</sup> Stream flows fell below 500 cfs on August 30<sup>th</sup>. However, six days later river discharge increased to 517 cfs. Stream flows again fell below 500 on the 12<sup>th</sup> but rose above the 500 cfs on the 18<sup>th</sup> and stayed above that level until early December.