

**BIENNIAL PROGRESS REPORT
INSTREAM FLOW WATER RIGHT CHANGES
2018 & 2019**

Submitted to:

Water Policy Interim Committee

Montana Department of Natural Resources and Conservation

Montana Fish & Wildlife Commission

Submitted by:

Montana Fish, Wildlife & Parks

Fisheries Division

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EXECUTIVE SUMMARY

Montana Fish, Wildlife & Parks (FWP) temporarily and in some cases permanently changes water rights to instream flow to benefit the fishery in streams and rivers across Montana. §85-2-436 MCA provides FWP with the authority to make these changes to instream flow. This statute was set to expire on June 30, 2019, but the sunset was extended to June 30, 2029 with the passage of SB 247 by the 2019 Legislature.

Temporary changes to instream flow typically involve FWP leasing water rights from willing partners, while in some cases water rights owned by FWP are temporarily changed. Permanent changes to instream use only involve water rights owned in fee simple by FWP that are acquired by gift, purchase or in conjunction with a land purchase.

FWP's instream flow change activities include: seeking approval of new water right leases and associated authorizations to change, developing renewals of leases and temporary changes to instream flow, and monitoring existing changes and exploration of new instream flow projects. Program highlights for 2018 and 2019 include:

- FWP completed one new temporary change to instream flow for Little Belt Creek.
- FWP completed one permanent change to instream flow for Cedar Creek.
- Four renewals were approved for Hells Canyon Creek, Chamberlain and Pearson Creeks, Cottonwood Creek and Mulherin Creek.
- Renewals are pending before DNRC for Big Creek.
- Four applications for temporary changes to instream flow are pending before DNRC for Deep Creek, Cow Creek and the Teton River (2 applications).
- One application for a permanent change to instream flow for Bear and Pine Creeks at Jardine is pending before DNRC.
- Applications for permanent changes to instream flow are being prepared for Nevada Spring Creek and Poindexter Slough, while water right ownership issues for Mill and Willow Creeks continue to be evaluated in advance of preparing applications to change the rights to instream flow.

AUTHORITY TO LEASE AND CHANGE WATER TO INSTREAM FLOW

The conversion of existing water rights to instream flow by FWP is governed by §85-2-436 MCA. The law authorizes FWP to change a water right to an instream-flow purpose to protect, maintain or enhance stream flows to benefit the fishery resource by:

- o Leasing and temporarily changing someone else's water right.
- o Temporarily changing an FWP water right held in fee simple.
- o Permanently changing a water right held by FWP in fee simple on up to 12 stream reaches.

Colloquially, the term “instream flow leasing” is often interchangeably used to refer to two distinct processes, the agreement to use another parties water right “the lease” and the water right change in appropriation right process “the change.” The leasing of the water right is the first step in the process where FWP staff and a willing water right owner agree to the terms of the water use, such as limiting use when flow falls below a certain level or providing infrastructure to reduce water demand. The authority to approve the lease agreement lies with the Montana Fish & Wildlife Commission.

After approval of the lease agreement, FWP staff prepares and submits the application to temporarily change the water right(s) to instream flow to DNRC. DNRC processes the application using the same procedures used for all other changes in appropriation rights in Montana, which includes the opportunity for others to object. The change authorizations issued by DNRC include requirements for FWP to measure the flow and other conditions necessary to prevent adverse effects to other water users. Temporary changes may be for periods of up to 10 years, unless the lease involves the construction of water conservation or storage projects, when the term may be up to 30 years depending on the expected life of the project.

Renewals follow a similar two-step process where the first step comprises the negotiation of a lease renewal between FWP and the water right owner. In the second step, FWP submits a Notice of Renewal to DNRC. The renewal process includes notification to water users potentially affected by the lease to submit new evidence of adverse effects to their water rights. If new evidence is received within 90-days, FWP is required to submit a full new application to DNRC. Renewals of the temporary changes are limited to a period of 10 years but can be renewed an indefinite number of times.

Permanent changes to instream flow of rights held in fee simple by FWP follow the same DNRC change process, including the opportunity for other parties to object.

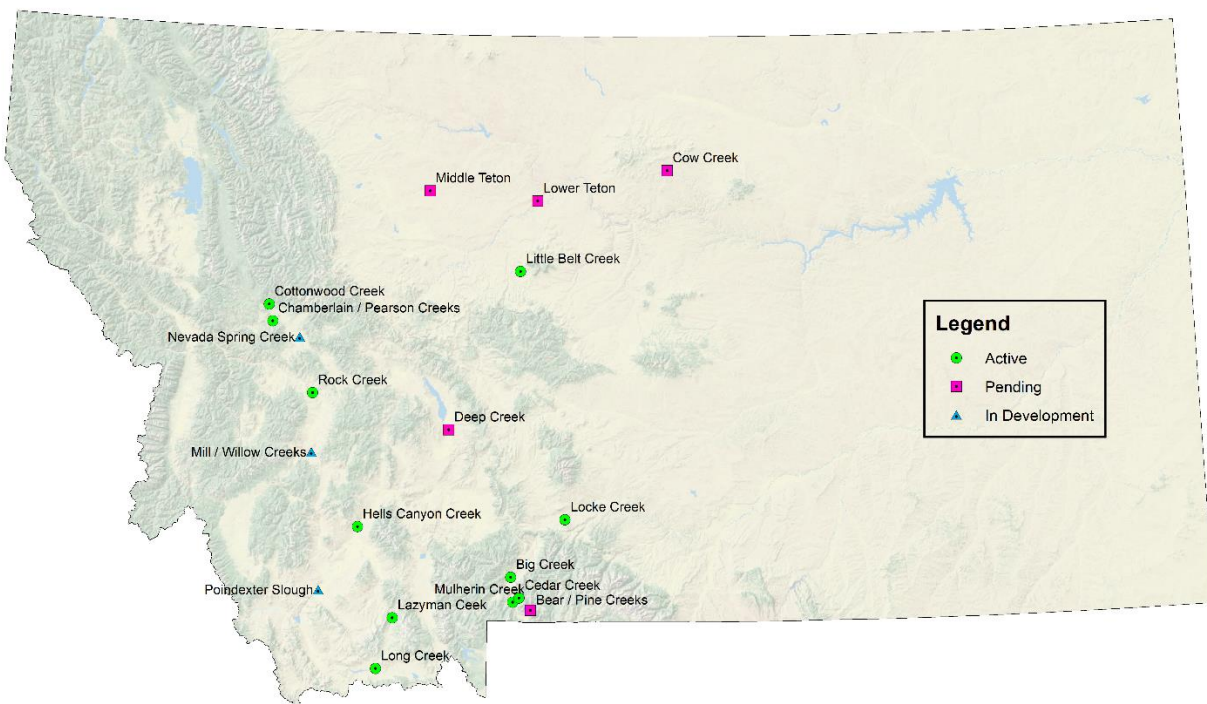
The statute was originally approved in 1989 with a 10-year sunset. The sunset was extended in 1999, 2007 and most recently in 2019 with the enactment of SB 247. §85-2-436 MCA now sunsets on June 30, 2029 unless extended.

CURRENT AND PENDING CHANGES TO INSTREAM FLOW

The table below lists the number of stream reaches where FWP has active and pending changes to instream flow as well as changes in development. The map shows the locations of the streams. Some streams have multiple water rights changes and multiple water leases. The table appended to this report gives more details on the active and pending changes as well as those changes that were terminated or were not pursued to fruition.

Active Instream Flow Changes	Stream Reaches
Temporary Changes of Water Rights Leased by FWP	11
Temporary Change of Water Rights Owned by FWP	1
Permanent Change of Water Rights Owned by FWP	1 ^a
Pending Instream Flow Changes	
Temporary Changes of Water Rights Leased by FWP	3
Permanent Change of Water Rights Owned by FWP	1
Instream Flow Changes in Development	
Permanent Changes of Water Rights Owned by FWP	3

^aCedar Creek includes both a temporary and permanent change to instream.



Locations of FWP instream flow projects.

GENERAL APPROACH

Over the nearly three decades of leasing water rights and making changes to instream flow, FWP has learned that successful water leases and changes to instream flow not only require the commitment of the party leasing water, but an understanding and general agreement amongst all water users on the source as to how the change to instream flow is to be

administered. This necessitates making clear how much water is protected and where it is measured along with providing up-to-date measurements to the water users so that the stream can be managed to meet the instream flow requirements. FWP's most successful instream changes involve strong buy-in from all the water users on the stream.

FWP's instream flow change activities have largely focused on tributaries to larger rivers that provide important spawning habitat. Typically, these tributaries flow from the mountains onto the valley floor where they are tapped for irrigation. Some irrigation diversions cause seasonal or periodic dewatering between the diversion and the mainstem river. These instream changes emphasize maintaining connectivity between the mainstem and tributary that prevent dewatering to protect redds (fish spawning beds), maintain flow and habitat for emerging fry and facilitate out-migration into the mainstem river. Some changes to instream flow focus on habitat for the resident fishery in the stream or river.

Water conservation projects providing for instream flow are also a priority. These projects focus on improving irrigation efficiency and keeping the amount of irrigation unchanged, while reducing the amount of water diverted for irrigation. The saved water is no longer diverted, thereby restoring stream flow.

REPORTING REQUIREMENTS

§85-2-436 MCA requires FWP to submit a report of activities to the Legislative Water Policy Interim Committee (WPIC), the Department of Natural Resources and Conservation (DNRC) and the Montana Fish & Wildlife Commission by December 1st of odd-numbered years. The biennial report must include a summary of all appropriation rights changed to an instream-flow purpose *in the last two years*. For each change, the report must include:

- o The length of the stream reach and how it is determined.
- o Streamflow or volume needed to enhance or preserve fisheries.
- o The amount of water available for instream flows as a result of the change in appropriation rights.
- o Contractual parameters, conditions, and other steps taken to ensure that each change in appropriation right does not harm other appropriators, particularly if the stream is one that experiences natural dewatering.
- o Methods and technical means used to monitor use of water under each change authorization.

2018-2019 ACTIVITY

Little Belt Creek – New Temporary Change to Instream flow

A landowner on Little Belt Creek, which flows from the southwest flank of the Highwood Mountains, approached FWP about leasing his senior irrigation rights. The landowner was interested in continuing

some level of irrigation, but also wished to lease his rights to improve streamflow in Little Belt Creek. FWP staff evaluated streamflow during the late summer when no irrigation was occurring to determine if streamflow without irrigation would be adequate to support the fishery and maintain connectivity throughout the stream. FWP staff also investigated the fishery of Little Belt Creek in the area of the potential water lease and found a surprising number of brown trout present on DNRC School Trust Land where the public has access to fish. As irrigation water use was not extensive in recent years, the water rights lease provided an opportunity to not only sustain the current fish population but possibly improve it.

In October 2017, the Fish & Wildlife Commission directed FWP staff to negotiate a 10-year water right lease agreement, with the final agreement being approved by the Commission in February 2018. The lease agreement calls for the lessor to divert no more than 1 cubic foot per second (cfs) compared to the right's maximum diversion rate of 25 cfs. Further, when streamflow drops below 2.1 cfs, the lessor must reduce irrigation diversion until such time streamflow meets or exceeds 2.1 cfs, even if that means ceasing to irrigate. FWP staff prepared an application to temporarily change the water right to instream flow, and submitted it to DNRC in August 2018. The change authorization was approved in April 2019.



Little Belt Creek June 5, 2019 flowing 24.8 cfs with water level logger in white plastic pipe on right side of picture.

Change in Appropriation Information

The length of the stream reach and how it is determined:

The temporary instream flow change restores and legally protects streamflow in Little Belt Creek for approximately 1.7 stream miles from the most upstream irrigation point of diversion to the end of the lessor's property. Because no active irrigation rights are present

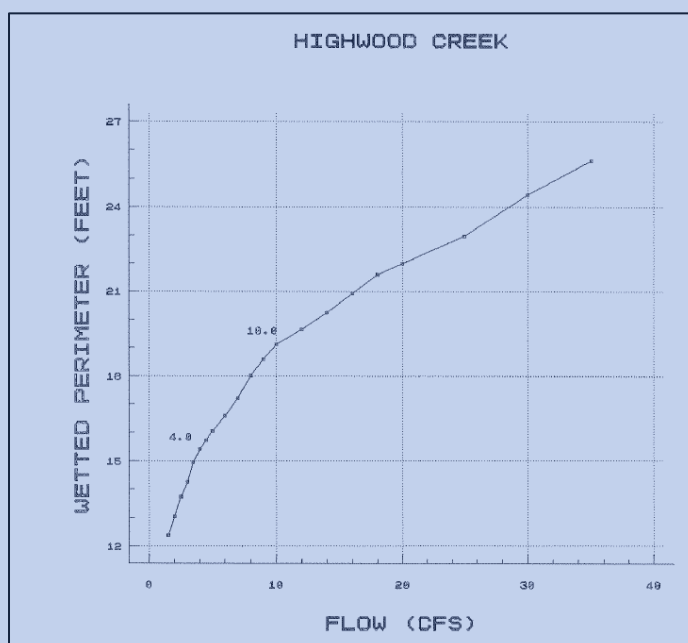
downstream, several additional miles of Little Belt Creek will benefit from the instream flow change, but the water will not be legally protected. The stream below the lessors most upstream diversion point historically suffered considerable dewatering due to large irrigation diversions. The change to instream flow will restore streamflow in the dewatered reach while still allowing for irrigation when streamflow is adequate.

The critical streamflow or volume needed to protect, maintain, or enhance streamflow to benefit the fishery resource:

FWP staff employed the Fixed Percentage Method to determine the 2.1 cfs instream flow level used in developing the water lease. This method provides an instream flow prescription based on the Wetted Perimeter Methodology when no wetted perimeter data has been collected.

Wetted Perimeter Methodology

The wetted perimeter methodology is a recognized instream flow methodology for fisheries flow based on habitat for food production in the shallow, fast-moving water of a stream. The wetted perimeter is the distance across the bottom and sides of a stream channel, measured at a riffle area, that is in contact with the water. A graph of the wetted perimeter versus discharge generally yields two inflection points. The upper inflection point of the graph is the level above which large increases in discharge result in a small increase of the wetted perimeter. The lower inflection point of the graph is the level below which small decreases in discharge result in large decreases of the wetted perimeter.



The Fixed Percentage Method averages the ratio of the wetted perimeter inflection point

flow value to the estimated mean annual flow for streams in a drainage basin where wetted perimeter data exists. This average ratio is multiplied by the estimated average annual flow for the stream with no data to arrive at an estimated wetted perimeter inflection point. In the case of Little Belt Creek, lower inflection point wetted perimeter data for five other streams in the Belt Creek drainage, including two streams also flowing from the Highwood Mountains, was used to arrive at the 2.1 cfs estimated lower inflection point. The lower inflection point was selected as values for the upper inflection points yields streamflow prescriptions that would not normally be expected to flow in Little Belt Creek even without irrigation occurring based on streamflow observations. The Board of Natural Resources and Conservation recognized the Fixed Percentage Method as a valid method for determining instream flow levels in approving water reservations for the Missouri River basin above Fort Peck Dam.

The amount of water available for instream flows as a result of the change in appropriation rights:

The flow rate protected for instream flow demanded against upstream junior rights is 0.67 cfs which is the historic diverted volume of 243.11 AF prorated over the entire 184-day period of use. While this flow is considerably less than the 2.1 cfs desired flow, it is sufficient to maintain critical connectivity throughout the stream during periods of very low flow. This is the average flow rate and does not reflect the much larger diversions that occurred historically when the full 25 cfs of the rights was being used. The DNRC methodology for estimating the historic water use likely underestimates the actual amounts historically diverted so the benefit to the stream will be greater than the values above portray.

The contractual parameters, conditions, and other steps taken to ensure that each change in appropriation right does not harm other appropriators, particularly if the stream is one that experiences natural dewatering:

Conditions were requested in the change application and included on the change authorization issued by DNRC to further limit the amount of water protected by 11.3% down to 0.59 cfs when 11 acres covered by another water source are irrigated.

The methods used to monitor use of water under each change in appropriation right:

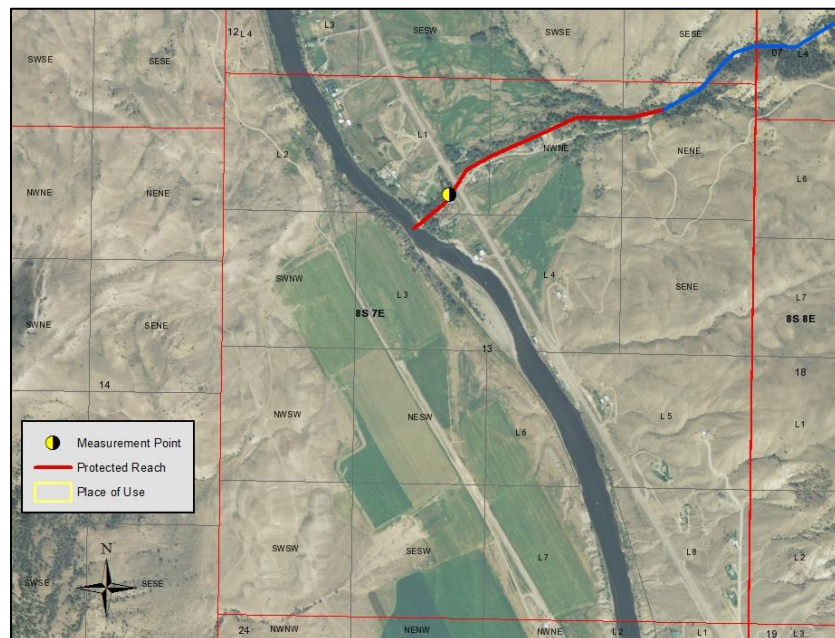
Streamflow is measured at the downstream end of the irrigated place of use, at the location approved by DNRC. At this location, a staff gage and stilling well housing an electronic water level recorder are in place. A water level (stage) – streamflow (discharge) relationship has been developed. This relationship is used with water level data recorded every half hour to develop a continuous flow record at the site. This relationship is also used to develop a rating table that can be used to determine streamflow based on staff gage readings. Streamflow measurements continue to be taken monthly if not more often to ensure the accuracy of the stage-discharge relationship and adjust it as necessary. Streamflow is measured by taking incremental measurements with a velocity meter across the stream following USGS protocol.

Cedar Creek – Permanent Change to Instream Flow

Cedar Creek is a vital spawning tributary for the Yellowstone River. The focus of the changes to instream flow on Cedar Creek is to provide for the spawning of Yellowstone cutthroat trout (YCT). YCT enter the system on the descending limb of the hydrograph, usually around the second week in July. They spawn in redds (nests) and then return to the Yellowstone River. Fry emerge from the redds normally in late August and emigrate from Cedar Creek to the Yellowstone River. Dewatering in later summer kills the eggs in the redds when exposed and prevents fry from emigrating from Cedar Creek to the Yellowstone River. In addition to YCT, other native and non-native fish use or reside in Cedar Creek. These fish benefit from instream flow being maintained throughout the irrigation season.

In 2008, FWP acquired water rights from Cedar Creek that were being leased by FWP under a 30-year agreement with a private landowner. This lease is in addition and supplemental to the Cedar Creek water rights leased from the U.S. Forest Service. With FWP's assistance, a ground water well ultimately replaced Cedar Creek as the source of irrigation water. With this new water source supplying the irrigation, the water right owner transferred ownership of the Cedar Creek water rights to FWP. In 2015, DNRC determined that FWP would need to file a new water right application to permanently change the water rights to instream flow even though the temporary change to instream flow had already been approved in 2004.

The original Cedar Creek water lease with the U.S. Forest Service and the accompanying change authorization protected 1.3 cfs in the lower ½ mile that was historically dewatered due to irrigation. This second and now permanent change to instream flow protects an additional 1.7 cfs for a total protected flow of 3.0 cfs.



Aerial photograph showing Cedar Creek protected reach and measuring point.

Change in Appropriation Information

The length of the stream reach and how it is determined:

The ½ mile stream reach where instream flow is protected begins at the mouth of the Cedar Creek Canyon where four irrigation ditches historically diverted water, causing periodic dewatering of Cedar Creek in late summer. This was identified as the reach in which flow restoration would benefit the fishery.

The critical streamflow or volume needed to protect, maintain, or enhance streamflow to benefit the fishery resource:

Wetted perimeter data collected for Cedar Creek indicated an inflection point at 3.0 cfs which is the recommended flow during the summer low-flow period (see Wetted Perimeter Method discussion in Little Belt Creek section above). With 1.3 cfs already leased from the U.S. Forest Service and protected instream, the difference between the 3.0 cfs wetted perimeter inflection point and the 1.3 cfs already instream is 1.7 cfs, which was the streamflow determined necessary to protect the fishery.

The amount of water available for instream flows as a result of the change in appropriation rights:

DNRC authorized 1.7 cfs up to 367.94 ac-ft from May 25th to September 10th as the amount of water protected in the lower ½ mile of Cedar Creek. This volume of water equates to the historic consumptive use with respect to the reach of Cedar Creek that was dewatered by the historic irrigation use.

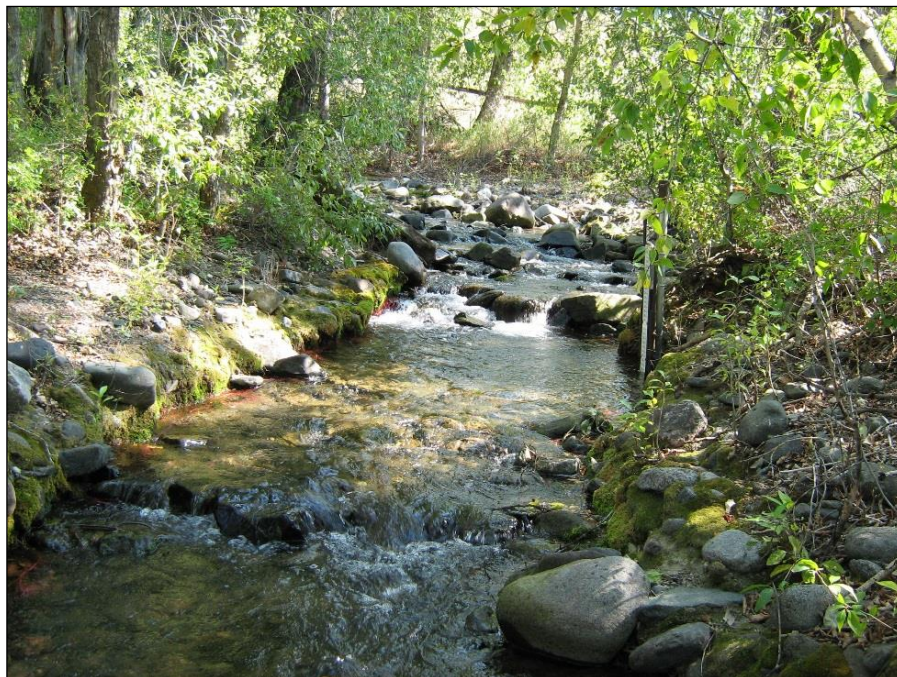
The contractual parameters, conditions, and other steps taken to ensure that each change in appropriation right does not harm other appropriators, particularly if the stream is one that experiences natural dewatering:

Only the amount of water that was historically consumed with respect to Cedar Creek was requested and ultimately authorized to be protected for instream flow. This assures that any water that was historically diverted but ultimately returned to the stream was not included in the protected instream flow so that other water users would not be adversely affected.

The methods used to monitor use of water under each change in appropriation right:

Streamflow is measured near the mouth of Cedar Creek, at the location approved by DNRC. At this location, a staff gage and stilling well housing an electronic water level recorder are in place. A stage-discharge relationship has been developed. This relationship is used with water level data recorded every half hour to develop a continuous flow record at the site. This relationship is also used to develop a rating table that can be used to determine streamflow based on staff gage readings. Streamflow measurements continue to be taken monthly if not more often to ensure the accuracy of the stage-discharge relationship and adjust it as necessary. Streamflow is measured by taking incremental measurements with a

velocity meter across the stream following USGS protocol.



Cedar Creek with water level logger in pipe on streambank.

RENEWALS COMPLETED

Hells Canyon Creek. The original 20-year water conservation lease at Hells Canyon Creek expired in April 2016. This lease on a tributary to the Jefferson River provides critical rainbow trout spawning habitat. FWP negotiated a 3-year renewal which DNRC authorized. After 3 years, FWP negotiated a 10-year renewal of the temporary change that was approved by DNRC in 2019. The renewals incorporated additional irrigation system improvements that reduced water demand on the creek.

Mulherin Creek. The 20-year water lease on Mulherin Creek, a tributary to the Yellowstone River near Corwin Springs, expired in 2018. The focus of this water lease is to protect flow in Mulherin Creek to provide for the successful spawning, incubation, emergence and outmigration of Yellowstone cutthroat trout to the Yellowstone River. FWP negotiated a 10-year renewal of the lease and DNRC approved the associated renewal of the temporary change authorization.

Chamberlain and Pearson Creeks. This lease was first authorized as a 20-year water lease with a landowner who owned water rights on both drainages in the Blackfoot River Basin. The restoration objectives of this lease included improving spawning and rearing habitat for both west slope cutthroat trout and bull trout and improve fish recruitment in the mainstem of the Blackfoot River. This initial lease was renewed for 10-years in March of 2007 and FWP successfully negotiated another 10-year renewal of this lease on June 30, 2017.

RENEWALS PENDING

Big Creek. The existing 10-year and 20-year water leases on Big Creek, a tributary to the Yellowstone River near Emigrant, expired after the 2018 and 2019 irrigation seasons respectively. The 10-year water leases were previously renewed in 2009. Like other upper Yellowstone River tributaries, change to instream flow protects flow in Big Creek to provide for the successful spawning, incubation, emergence and outmigration to the Yellowstone River of Yellowstone cutthroat trout. FWP negotiated renewals of the water leases and the renewals of the changes to instream flow are currently pending before DNRC.

CHANGE APPLICATIONS PENDING

Cow Creek. In 2014 FWP entered into a water lease agreement on Cow Creek located on the east side of the Bears Paw Mountains south of Chinook. The project involves a temporary change to fishery use for a large reservoir with public access in addition to a temporary change to instream flow in Cow Creek itself which has a resident brook trout population. FWP has worked with the water right owners to negotiate a resolution of water right ownership issues with the DNRC Trust Lands Division and to address issue remarks on the water rights. In 2017 the Water Court approved the resolution of the ownership and other issues. FWP submitted the application to DNRC in April 2019 and it is currently being processed.

Deep Creek. In 2017 FWP entered a water lease on Deep Creek, a tributary to the Missouri River near Townsend. The focus of the lease is to provide adequate connectivity in lower Deep Creek to provide for the spawning and rearing of resident and migratory brown and rainbow trout. FWP submitted the change application to DNRC in January 2018 and it is currently being processed.

As compensation for this lease, FWP must provide replacement irrigation water from the Broadwater-Missouri Canal owned by DNRC and operated by the Broadwater-Missouri Water Users' Association. FWP entered an agreement with the Association to transport the water. FWP continues working with DNRC to obtain the water under DNRC's existing water right either by contract or through a mitigation agreement as part of DNRC's fishery mitigation associated with their FERC license for the Toston Project.

Pine and Bear Creeks. Trout Unlimited approached FWP offering to donate two water rights that were historically used for mining. FWP would then permanently change the water rights to an instream flow in Pine and Bear Creeks. Pine Creek is a tributary to Bear Creek at Jardine and Bear Creek is a tributary to the Yellowstone River near Gardiner. Like other streams in the upper Yellowstone where FWP leases water, the permanent change to instream flow is expected to benefit Yellowstone cutthroat trout. FWP completed an environmental

assessment regarding the proposed acquisition and permanent change to instream flow in November 2017. The Fish & Wildlife Commission accepted the donation of the water rights. FWP filed an application with DNRC to permanently change the water rights to instream flow in September 2018 and it is currently being processed.

Teton River. In 2017, FWP negotiated and the Fish & Wildlife Commission approved water right lease involving two groups of water rights on the middle and lower Teton River. In November 2017, FWP submitted the two applications to DNRC to temporarily change the water rights to instream flow. The focus is to protect and restore instream flow in the lower Teton River.

The lower Teton River historically supported a diverse fish community of 28 warm-water species, including sauger, blue sucker and shovelnose sturgeon. Since the mid-1980s dewatering of the lower Teton River has increased resulting in a corresponding loss of species diversity in the river. USGS streamflow data for Teton River at its mouth shows that the river was dry for the entire month of August in 10 of the last 19 years and the entire month of September in 9 of the last 19 years. Recently, and for the first time, the District Court appointed water commissioners to distribute water from the entire Teton River and its tributaries, ensuring that water users on the lower river will receive the water they are due and making the leasing of water rights viable.

FWP submitted the change applications to DNRC in November 2017. Due to procedural issues with processing of the applications, DNRC requested that FWP resubmit the applications which occurred in September 2019. The applications are currently being processed.

INSTREAM CHANGES IN DEVELOPMENT

Nevada Spring Creek. (Two Projects). FWP was offered (through donation) several water rights from Nevada Springs and Nevada Spring Creek. These water rights, for both irrigation and stock use, are located on a spring creek tributary to Nevada Creek in the Blackfoot Basin.

Public comment was collected in November and December 2012 as part of the “Nevada Spring Creek Water Right Acquisition Environmental Assessment”. The Fish & Wildlife Commission authorized acceptance of the irrigation water rights in December 2012. In July 2013, the Fish & Wildlife Commission authorized acceptance of the associated stock water rights. In August 2013, the quit claim deed was recorded and the Water Right Ownership Update was filed with DNRC.

The subject water rights were part of the Montana Water Court’s ongoing Blackfoot River Basin Preliminary Decree (Basin 76F). Review of the claims defined inaccuracies in the Nevada Spring Creek water rights. Therefore, FWP objected to those water rights in the

adjudication proceedings. Through amendments and withdrawals, FWP has corrected the inaccuracies of those claims. The Water Master's report was finalized in July 2015. The Water Judge adopted the Master's Report in August 2015.

From 2016 through 2019 FWP has collect operational, hydrologic and historical use data. FWP is in the process of preparing a Change Application to convert the irrigation water rights to an instream-flow purpose and plans to submit the application to the DNRC for approval in 2020.

Mill Creek and Willow Creek. Under a 2008 settlement agreement, the State of Montana Department of Justice accepted ownership of a number of Mill and Willow Creek water rights held by ARCO Environmental Remediation LLC. Historically these rights diverted irrigation water from Mill and Willow creeks, both tributaries to the Clark Fork River. These two streams have confluence with the river near Anaconda, MT.

Montana Department of Justice's Natural Resources Damage Program (NRDP) transferred management of these water rights to FWP. The intended fate of these rights is the conversion from an irrigation purpose to an instream flow purpose.

FWP began a due diligence evaluation of those rights in February 2013. The evaluation has revealed issues of overlapping and conflicting claims of ownership. Ownership issues must be resolved before a change to instream flow is sought through DNRC's change of use process. This resolution will likely occur as part of the Preliminary Decree process yet to come in the upper Clark Fork basin.

Poindexter Slough. FWP holds irrigation rights acquired when the Poindexter Fishing Access Site was purchased in the 1980s. Poindexter Slough is a side channel of the Beaverhead River that provides important trout spawning habitat. In addition, the site receives significant angler and other recreational use by the public. Irrigation of crops other than some small shelterbelts/food plots is not part of the long-term management direction for the site.

FWP staff has collected flow data from Poindexter Slough for several years and has drafted an application to permanently change the water rights to instream flow as well as for mitigation of surface water depletions caused by other FWP owned ponds, wells and other groundwater developments. The application will be finalized and submitted in 2020.

CONCLUSION

There continues to be strong interest from water right owners in leasing water for temporary changes to instream flow. FWP will continue to administer its existing changes to instream flow and pursue new changes where opportunities arise. In 2020 and 2021, current projects involving both temporary and permanent changes to instream flow will continue to move forward, and new projects will likely be developed.

FWP Instream Flow Change History as of November 2019

			Active Leases						
SOURCE	RIVER BASIN	STATUS	LESSOR	LEASE TERM/EXP.	PRIORITY OF RIGHT	QUANTITY LEASED			PERIOD OF USE
Big Creek	Upper Yellowstone	Active Renewed	Land Trust	10 years April 15, 2030 ¹	March 12, 1883; June 30, 1901; May 31, 1909; May 15, 1910; May 15, 1910	1.0 – 16.0 cfs 2.0 (rights dedicated to a land trust in perpetuity)			April 15 - October 15
Big Creek	Upper Yellowstone	Active Renewed	Private Party	10 years May 1, 2029 ¹	June 30, 1873 (1 st right on stream) right split between 2 parties	2.8 cfs			May 1 - November 1
Big Creek	Upper Yellowstone	Active Renewed	Private Party	10 years May 1, 2024 ¹	June 30, 1873 (1 st right on stream) right split between 2 parties	7.5 cfs			May 1 - November 1
Cedar Creek	Upper Yellowstone	Active Renewed	US Forest Service	10 years September 20, 2025	April 1, 1890; April 1, 1893; April 1898; April 1, 1904; April 7, 1972 (high-water rights only)	6.77 cfs May 1-July 15 6.39 cfs July 16-July 31 9.64 cfs August 1-August 31 6.39 cfs Sept 1 - October 15			May 1-October 15
Locke Creek	Upper Yellowstone	Active	Private Party	30 years December 14, 2031	March 6, 1915	7.5 cfs			April 20 – October 24
Mulherin Creek	Upper Yellowstone	Active Renewed	Private Party	10 years December 31, 2028	July 15, 1884; May 7, 1885; June 15, 1893; January 1, 1900; March 2, 1903; June 5, 1905; August 5, 1920; April 15, 1967	5.0 cfs to 27.0 cfs			April 15 - October 19
Long Creek	Red Rock	Active	Private Party	December 31, 2026	October 7, 1915 – UT Long Creek - 41A 110697-00 October 15, 1888- Long Creek -41A 110699-00 October 15, 1888 – UT Long Creed - 41A110700-00 August 25, 1893 –Divide Creek- 41C110701-00	Month	To POD	Blw POD	July 1 - September 15
						July	7 cfs	5.49 cfs	
						Aug.	cfs	2.77 cfs	
						Sept.	3 cfs	1.8	
Lazyman Creek	Ruby	Active	Private Party	10 years November, 2021	April 30, 1888 (only diversionary right on source)	Up to 1.0 cfs			May 15 – October 15
Hells Canyon Creek	Jefferson	Active Renewed	Private Parties	10 years Apr. 1, 2029	December 31, 1884 (1 st right on stream), August 23, 1889; August 29, 1912	1.12 cfs (salvaged water)			April 1- November 4
Little Belt Creek	Belt Creek	Active	Private Party	10 years: April 17, 2029	October 3, 1891; May 27, 1895 (senior rights on source)	1.0 cfs (trigger flow)			May 15 – October 15
Chamberlain Creek	Blackfoot	Active Renewed	Private Party	10 years April 1, 2027	October 10, 1911	½ the flow up to 25 cfs			April 1 - October 31
Pearson Creek	Blackfoot	Active Renewed	Private Party	10 years April 1, 2027	October 10, 1911	Up to 8 cfs			April 1 - October 31

¹ Renewal pending before DNRC.

FWP Instream Flow Change History as of November 2019

Cottonwood Creek	Blackfoot	Active Renewed	FWP – rights acquired with Wildlife Management Area	10 years October 18, 2026	May 1, 1884	14 cfs April, 37 cfs May 1-June 30, 32 cfs July, 9 cfs August, 6 cfs September, 9 cfs October 8 cfs November (Salvaged water)	April 1- November 4
Rock Creek	Clark Fork	Active	Private Party	20 years October 31, 2021	March 23, 1881; May 15, 1881; June 1, 1892; May 1, 1898; September 29, 1904; May 10, 1907	5.0 - 27.22 cfs	April 15 - October 31
Permanent Changes to Instream Flow Completed							
Cedar Creek	Upper Yellowstone	Active	FWP purchased right from private party – rights previously leased	Perpetuity	May 29, 1894 (4 th right on stream; other high-priority rights already leased by FWP);	3.25 cfs	April 1 – November 1
Applications Pending Before DNRC							
Bear and Pine Creeks	Upper Yellowstone	Pending	Rights donated to FWP	Perpetuity	December 31, 1876; July 24, 1903 (include most senior right)	10.84 – 11.34 cfs	January 1 – December 31
Cow Creek	Missouri	Pending	Private Party	10 years	March 28, 1889, May 1, 1889 (most senior rights on source)	0.45 cfs	April 1 to October 31
Deep Creek	Missouri	Pending	Private Party	10 years	May 1, 1868; March 1, 1870 (6 th and 8 th priority rights)	4.25 cfs	May 5 – September 23
Teton River	Missouri	Pending	Private Party	10 years	August 2, 1897; August 3, 1901	4.47 cfs / 4.23 cfs	May 20 – September 23
Teton River	Missouri	Pending	Private Party	10 years	October 20, 1890	5.9 cfs	May 4 – October 2

FWP Instream Flow Change History as of November 2019

In-active leases/changes (terminated, not perfected or rescinded)

Mill Creek	Upper Yellowstone	Inactive	Mill Creek Water and Sewer District	Expired	95 rights with various priorities	41.4 cfs	48-60 hours in August Diversion shut off after 10-day notice from FWP
Mill Creek	Upper Yellowstone	Inactive	Private Party	Expired	June 30, 1880; June 1, 1903	2.0 cfs (1880) and 4.13 cfs (1903) (salvaged water)	May 1 -October 4
Mill Creek	Upper Yellowstone	Inactive	Private Party	Expired	June 1, 1891	2.64 cfs	May 1 – October 19
Blanchard Creek	Blackfoot	Inactive	Private Party	Lease rescinded	May 11, 1913 (first right on stream)	3.0 cfs	April 15 -October 15
Trail Creek	Clearwater	Inactive	Resort (and) Homeowners Association	Not perfected Lease rescinded	April 10, 1905 January 10, 1911	1.06 cfs 2.37 cfs plus, an additional 0.5 cfs during periods of low flow	April 1 - October 31.
Tin Cup Creek	Bitterroot	Inactive	Private Parties	Met statutory limit on renewals in place at that time.	August 1, 1883 (first right on stream)	2.28 cfs April 1-April 14 4.32 cfs April 15-April 30 4.72 cfs May 1-October 19	April 1- November 4
Hell Roaring Creek	Red Rock	Inactive	Private Party	Not perfected Lease rescinded – rights later withdrawn by owner.	May 26, 1900 October 25, 1901 September 24, 1915	8.0 cfs 4.0 cfs 6.0 cfs	May 1 – October 15 May 1 – October 15 May 1 – October 25
LaMarche Creek	Big Hole	Inactive	Private Party	Lease terminated at owner request due to conditions imposed by DNRC.	July 28, 1906; December 31, 1955	1.85 cfs / 2.0 cfs	May 15 – September 22
Deep Creek	Missouri	Inactive	City of Townsend	Lease terminated at owner request due to conditions imposed by DNRC.	April 1, 1866 April 2, 1866	1.88 cfs 0.16 cfs	April 1 – October 1