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Keeping Fish Wet in Montana: Private Water Leasing: Working with the Prior Appropriation System to Restore Streamflows

by

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PREFACE

Innovative and collaborative approaches are making headway in addressing dwindling water resources in the American west. Watershed organizations that emphasize the virtue of cooperative conservation to preserve and protect a resource we value for its ecological and cultural importance are springing up across the region. Throughout the western states, irrigators, farmers, ranchers, local governments, recreationists, and conservationists are forming coalitions to address water management concerns. The necessity of preserving our water resource is decreasingly viewed as only a

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"green" mission. Water users are coming to realize that we all have a stake in water conservation. Through our cooperative conservation successes, we have demonstrated that a "top-down" regulatory approach to water management may not always lead to the most beneficial or fair results. The win-lose nature of the "top-down" approach can be avoided to ensure wiser and more effective results.

Water transactions between willing buyers and sellers are one of the many approaches to water conservation that has been gaining steam for nearly a decade. Voluntary, incentive-based tools are being used to address water availability issues in the west and both public and private entities are pursuing water transactions as a way to achieve ecological and economic benefits. There are three broad categories of entities engaged in water transactions for the benefit of fish and wildlife across the west: private water trusts, federal and state agencies pursuant to the Endangered Species Act, and wildlife management areas.1 Private water trusts now exist in Oregon, Washington, Colorado, and Montana.

This article explores water transactions (or water leasing) in Montana from the private water trust perspective. Part I summarizes Montana’s private water leasing law. Part II provides a brief background on the formation of the Montana Water Trust (MWT)2, the tools employed by MWT to restore streamflows, and a case study to illustrate the logistics of private water leasing in Montana. Part III concludes with general observations and recommendations as private water leasing enters its second decade in Montana.

I: THE LEGAL SETTING

A. Nuts and Bolts of Prior Appropriation and the Montana Water Use Act

The prior appropriation doctrine emerged out of California in the 1800’s after miners developed a more flexible water use system than the riparian water system used in England and the eastern United States.3 Prior appropriation was more appealing than the riparian system because it allowed diversion of water to an off-site location so long as the water was applied to


2. MWT is a private, nonprofit 501(c)(3) organization located in Missoula, Montana, with the mission of working cooperatively with farmers, ranchers, and other landowners to develop incentive-based agreements that benefit landowners, streamflows, and communities. MWT's innovative approach demonstrates how voluntary water transfers create social and environmental solutions to the problem of chronic dewatering.

3. In re the Adjudication of the Existing Water Rights to the Use of All the Water, both Surface and Underground, within the Missouri River Drainage Area, Including All Tributaries of the Missouri River in Broadwater, Cascade, Jefferson and Lewis and Clark Counties, Montana (Basin 411), 55 P. 3d 396, 399 (Mont. 2002) [hereinafter Bean Lake III].
a beneficial purpose. Through both court decisions and codification, the doctrine of prior appropriation became the law of the western states, including Montana.

The doctrine of prior appropriation in Montana and throughout the west operates under the philosophy "first in time, first in right." Under this doctrine, the first person to divert and use water from a stream acquires a senior right to the quantity of water used. Later claimants exercise their rights in descending order of priority and are referred to as junior users. In times of shortage, those users with the oldest water rights are entitled to take their full rights from the stream before those with younger rights. Often, insufficient water is left instream (instream flow) to support healthy freshwater ecosystems.

Traditional elements of a valid appropriation under the prior appropriation doctrine are as follows:

- **Intent**: An appropriator must intend to use the water.
- **Diversion**: Except for an instream beneficial use, an appropriator must divert the water.
- **Beneficial use**: To perfect an appropriation, the water must be applied to a recognized, beneficial use.
- **Priority access**: Once the water is put to a beneficial use, the water right receives a priority date.
- **Definite quantity**: The quantity of an appropriation right must be fixed and definite.

The Montana Supreme Court has recently stated that beneficial use is the touchstone of the prior appropriation doctrine and that, prior to the enactment of the Montana Water Use Act in 1973, Montana explicitly recognized the use of water for fish, wildlife, and recreation as beneficial uses.

Also, the Montana Water Use Act recognizes non-consumptive and in-stream uses for fish, wildlife, and recreation:

"Beneficial use", unless otherwise provided, means:

(a) a use of water for the benefit of the appropriator, other persons, or the public, including but not limited to agricultural (including stock water), domestic, fish and wildlife, industrial, irrigation, mining, municipal, power, and recreational uses.

Another rule within the prior appropriation doctrine relates to abandonment of water rights. The "use it or lose it" rule requires appropriators to

4. *Id.*
7. *Bean Lake III, supra* n. 3 at 399-400.
use their entire water right or risk abandoning it. Once a water right is deemed by the state to be abandoned, the water is available for appropriation by other water users. This rule was intended to encourage reasonable water use and discourage speculation; however, it often encourages waste. Indeed, water right holders commonly use water even when it is not necessary, simply to ensure they do not lose it through abandonment.

With respect to abandonment, if the Montana Department of Natural Resources and Conservation (DNRC) believes that an appropriator has abandoned a water right, the DNRC may initiate a court action to declare the right abandoned. Abandonment is the consequence of:

- Ceasing to appropriate all or a part of a right with the intention of abandonment;
- Ceasing to appropriate a right according to its terms or conditions; or
- Ceasing to appropriate all or part of a right for a period of ten years when water was available for use.  

If any of these conditions exist, the DNRC may petition the appropriate district court to declare the rights abandoned. The district court conducts a hearing and the DNRC bears the burden of proving abandonment.

B. History of Instream Flow Protection and Water Leasing in Montana

There are over 4,000 miles of chronically and periodically dewatered streams in the state of Montana. Over one hundred years of water withdrawal (mainly for agriculture and mining) combined with unprecedented drought conditions have taken its toll on Montana’s freshwater ecosystems, native fish populations, and individuals who depend on water for their livelihoods.

The Montana legislature began addressing low stream flows in 1969 when it authorized the Department of Fish and Game to obtain new water rights on twelve trout streams to maintain in stream flows for the benefit of fish and wildlife. Although legislation was repealed in 1973, the water rights remain valid. In 1973, the Montana Water Use Act authorized state and federal agencies to make in stream flow reservations on any stream in the state. Currently, 332 streams have water reservations in place.
many cases, however, the Murphy rights and reservations are junior to many senior water rights and, although a move in the right direction, do not solve the water quantity issue within these stream systems. Additional approaches were needed, particularly one that was not punitive to the landowner but that recognized the importance of water to Montana's agricultural community.

Montana's water leasing program began in 1989 when legislation was enacted to give the Department of Fish, Wildlife and Parks (FWP) authority to lease water rights for instream flows on four streams. The legislation was renewed and FWP's authority expanded in 1991, with a subsequent renewal in 1999.

In 1995, a partnership of environmental and agricultural groups formed to pass legislation that allows individuals or private organizations to lease water rights for instream flow. The legislation authorized two options for water right holders to temporarily change consumptive water rights to instream use. The owner of a water right could lease their right to a private group or individual for instream use or the owner could convert their water rights individually without leasing the right. Under either option, the conversion to instream use was limited to ten years with the option of one renewal. In 1999, the legislature expanded the scope of the leasing program by allowing thirty-year leases for water conserved through irrigation efficiency projects. Both programs were scheduled to sunset in 2005. However, the 2005 legislature passed a bill to remove the sunset provisions from both programs, authorizing private water leasing permanently and removing the limitation on the number of lease renewals.

C. Montana's Private Water Leasing Law

Montana's private water leasing law enables another person to lease water from willing water right holders for instream use to benefit fisheries. Currently, water may not be leased under this law for any other purpose, such as aesthetic purposes. Limiting the change to benefit fisheries, however, does ensure that water taken from historically irrigated acreage is put to a use that is of great value to Montana and Montanans.

20. Id. at § 85-2-408(2).
21. Id. at § 85-2-407(3).
22. Id. at § 85-2-407(9) (1999).
Formal leases require approval for a temporary change in appropriation right from the DNRC and may be entered into for a maximum period of ten years and can be renewed for subsequent ten-year periods without limitation. The Montana Water Use Act also allows water right holders who increase the efficiency of their water use to donate or lease all or part of the saved water for instream use. The lease may be entered into for a period equal to the expected life of the project, not to exceed thirty years. Because Montana only allows temporary transfers of water to an instream right, the water right holder maintains title to the leased water right. After the expiration of the lease and change authorization granted by the DNRC, the water right automatically reverts back to its permanent use.

Under the leasing law, the instream water right is assigned the priority date of the original water right. As such, a senior instream water right is unavailable for use by junior water users in a protected stream reach. Designation of a protected reach (or the stream reach in which the streamflow is to be "maintained or enhanced") is required by the leasing law. While the quantity of water authorized for lease is subject to the amount of historically diverted water, the leasing law only authorizes the amount of water historically consumed to be protected instream in the protected reach. The leased water right can be enforced against junior users in the protected reach. The lessee of a water right does not have standing under the Montana Water Use Act to enforce its leases against junior water users. Rather "[o]nly the owner of the water right may seek enforcement of the temporary change authorization." However, the lessor may assign its authority to the lessee to enforce the water right.

Finally, the applicant for temporary change of use to instream flow must also prove by a "preponderance of the evidence" that "a temporary change authorization for water to maintain or enhance instream flow to benefit the fishery resource, as measured at a specific point, will not adversely affect the water rights of other persons" and "the amount of water for the proposed use is needed to maintain or enhance instream flows to benefit the fishery resource."

Abandonment (discussed above) is not an issue for water right holders who transfer all or a portion of their water rights through a water lease because the amount left instream is protected against abandonment under

25. Id. at § 85-2-407(1)-(3).
26. Id. at § 85-2-419.
27. Id. at § 85-2-407(9).
28. Id. at § 85-2-407(6).
29. Id. at § 85-2-407(5).
30. Id. at § 85-2-408(1).
31. Id. at § 85-2-408(7).
32. Id. at § 85-2-408(5).
33. Id.
34. Id. at § 85-2-408(3).
Montana law. Thus, if water right holders are interested in preserving their water rights, but may not need to use the entire right each year (e.g., upgraded irrigation system conserves water), they can protect their entire water right by leasing the water for instream use to benefit fisheries. In over-appropriated streams, such a lease will ensure that the conserved water is not used by junior users, but will remain instream to benefit fisheries.

D. The Change of Water Use Application Process

In addition to meeting the statutory criteria for the temporary transfer of a water right to instream flow, an application is also subject to numerous specific requirements applicable to all change of water use applications instituted by the DNRC pursuant to the rule making authority granted by the legislature. Effective January 1, 2005, new appropriation rules devised by the DNRC Water Rights Bureau made significant changes to the application process to make a change to an existing water right. The two most significant application requirements are the documentation of the historic use of the water right and documentation of the effect of the change on other water users. Both requirements stem from the fact that legal water rights in most of Montana’s basins have not been finally adjudicated and therefore have not been verified for accuracy by the state.

The change of water use application process therefore requires exhaustive research on the past, current, and proposed use of the water right. The DNRC is under the obligation to ensure that a change in use does not “constitute an enlargement in historic use of the original water right” to protect other water users from adverse affect. Once an application is received by the regional DNRC Water Resources Bureau, it is reviewed and, if appropriate, is deemed “correct and complete.” Once an application has received a correct and complete determination, the DNRC puts the application up for public notice and the applicant must respond to any valid objections. Then, the DNRC either authorizes or denies the change application. The applicant has a right to appeal any denial. Once an application is submitted, an initial decision may not be issued by the regional DNRC Water Resources Bureau office for over a year.

35. Id. at § 85-2-404(4).
36. Id. at § 85-2-402(14).
38. Id. at 36.12.1901(3).
39. Id. at 36.12.1903.
40. Id. at 36.12.1901(3).
41. Id. at 36.12.1601.
II: THE MONTANA WATER TRUST APPROACH

A. Formation of the Montana Water Trust

In 2000, a steering committee convened in Montana to address the issue of how to deal with the dewatering of Montana's freshwater ecosystems in a way that was not punitive to Montana's landowners and agricultural community. This committee was comprised of representatives from the agricultural community, conservation community, various state agencies, and private stakeholders. The focus of their meetings was to determine what type of entity would be best situated to deal with the ever-increasing issue of using a scarce resource to meet consumptive and instream needs, while doing so within the current prior appropriation system.

As water leasing and water rights transactions were having success in Oregon and other western communities, the committee looked toward incentive-based approaches for improving instream flows in Montana. The committee agreed that a Water Trust was an appropriate entity to address the needs for finding balance between ecological and economic uses of water in Montana. In 2001, the Montana Water Trust (MWT) was founded.

B. Tools for Restoring Stream Flows in Montana

While the prior appropriation doctrine is often viewed as a hindrance to restoring and protecting instream flows, Montana's private water leasing law has proven to be a valuable tool for working within the prior appropriation world to address dewatering concerns across the state. The success of the program is largely due to its non-regulatory nature that enables groups to lease senior water rights and protect them instream with the original priority date maintained. This law addresses the problem that Murphy rights and reservations have within the prior appropriation system because of their junior status.

Currently in Montana, there are two private organizations, MWT and Trout Unlimited, successfully working with water right holders to design private water leases to increase streamflows.

MWT works to restore streamflows under Montana's private water leasing law by compensating landowners with financial compensation, tax benefits, technical assistance, or irrigation improvements in exchange for not diverting all or a portion of their water rights from the stream. The acquisition methods and approaches that MWT utilizes are described below.

42. See e.g. Alex C. Sienkiewicz, Student Author, Instream Values Find Harbor in Bean Lake III, Drown in Prior Appropriation, 25 Pub. Land & Resources L. Rev. 131, 146 (Spring 2004).

43. See Montana Water Trust, Project Success Stories, http://www.montanawatertrust.org/projects/success.html (last accessed Feb. 10, 2006); see also supra n. 16.
Short-Term Leases. Short-term leases, which temporarily convert water instream for one or two years, play an important role in MWT’s acquisition strategy for several reasons. First, they provide a good way for all stakeholders to “test the waters.” Landowners can see how leasing affects their water needs, and MWT can assess how effective the water rights are in protecting streamflows. Second, and most importantly, short-term leases are an excellent way for stakeholders to establish trust and strong working relationships that lead to longer-term agreements. Short-term leases have played a key part in MWT’s acquisition strategy during the first few years of operation when establishing longer-term agreements with landowners was more challenging.

Long-Term Leases. Leases of three years or more provide a way of establishing long-term flow protection. Long-term leases may also be more affordable because they provide adequate time for landowners to make capital adjustments in costs associated with using their water rights.

Split-Season Leases. Split-season leases allow a portion of a water right to be used for irrigation early in the year, leaving the remaining portion of the right for instream use later in the summer. These leases are likely less expensive than full-season leases.

Dry-year Options. With dry-year options, arrangements are made ahead of time for access to water during drought. Option leases provide a way to protect fish, wildlife, and recreational values without tying up water and funds when streamflows are adequate. This is particularly important since making water available to junior right holders could be an excellent way to limit controversy in basins where significant water availability concerns exist.

Net Water Savings. MWT also considers funding conservation projects to encourage more efficient irrigation practices to increase flows and improve water quality. Such projects may involve physical or operational improvements. MWT then enters lease agreements for the conserved water.

Source Switching. This type of acquisition involves changing the source of irrigation water from surface water to groundwater or stored water and then transferring the surface rights to MWT for instream use. A diversion source may also be changed from an existing surface diversion on a small tributary to a larger mainstem river or stream.

Point of Diversion Change. Changing the point of diversion to a location below a critical stream reach might increase flows in that reach.

Diversion Reduction Agreements. Diversion reduction agreements involve negotiating agreements with water users outside of the DNRC transfer process under which the water user agrees to forego diversions during certain times if the measured flow from the tributary falls below a certain level. This option is useful in a drought situation in which it would not be possible to secure a change in use from the DNRC because of their lengthy review process. However, the water would not be protected against use by
junior users, though it would be protected against abandonment because the water user is intending to apply the water to a beneficial use.

Through utilization of the above leasing options, MWT currently has fifteen agreements in place that restore 54.64 cubic feet per second (over 35 million gallons of water per day) to rivers and streams in six of Montana’s watersheds.

C. Water Right Valuation

Because private water leasing is a relatively new concept in Montana, the value of water for instream flow is determined in a number of ways.\(^{44}\) Below are several valuation methods used by MWT in negotiating a fair price for a water lease.

*Sales comparison method.* This method involves comparing the subject water right with similar water rights that have been leased. While this approach is relatively straightforward, the lack of sufficient sales data for comparable water rights may preclude this method for most transactions, at least until more transactions occur.

*Land price differential method.* This method compares the value of agricultural land with water rights to land without water rights and is a useful addition to the sales comparison approach in regions where the leasing of water rights is relatively uncommon. The difference in value between irrigated and non-irrigated land represents the incremental value attributable to the water rights.

*Income capitalization method.* This method is used to estimate the agricultural value of water in its current use by determining the contribution of irrigation water to net revenue from agriculture production. The approach provides a reliable method for determining the foregone agriculture revenues resulting from production losses due to the reduction of the available water supply resulting from a water lease. This approach provides an accurate reflection of on-farm conditions by considering the physical characteristics of the land, irrigation application, delivery system, and crop yields under irrigated and non-irrigated conditions. This method accounts for the avoided costs of production.

*Replacement cost method.* This method involves determining the cost users are willing to pay to develop new water supplies, such as a well. In a well-functioning market, the price of a surface water right will not exceed the cost of drilling and operating a well – assuming that ground water is available and of comparable quality. Thus, a water right’s value may be limited by the costs of obtaining water from an alternative source.

D. *A Case Study — The Little Blackfoot River*

Twenty-six miles of the Little Blackfoot River are chronically dewatered; yet Montana FWP recognizes the Little Blackfoot as a river with "outstanding fishery resource value." In 2004, MWT helped fund a streamflow and temperature study that identified severely dewatered reaches. After research and outreach in the basin, MWT signed a one-year water lease with a senior water right holder in 2005, which was renewed in 2006. This precedent-setting agreement in this watershed restores flows in one of the most critically dewatered reaches of the Little Blackfoot.

The lease took the form of a short-term "split season diversion reduction agreement" whereby the landowner agreed to cease diverting a portion of the water he was entitled to use under his water right during the latter part of the irrigation season in exchange for compensation. The landowner has historically irrigated about sixty acres for grass hay, which he sold on the local market. The value of the lease was negotiated as the price the landowner would have received for his hay.

Because this lease is short-term, DNRC approval for a change in water use was not pursued, as the application would not be approved before the lease expiration date. The consequence is a lack of enforceability of the instream water right against downstream junior users in a protected reach and the foregone ability to call on upstream users to satisfy the landowner's water right. However, due to the landowner's location on the stream, such enforcement was not necessary. This project was strategically located and entered into with the landowner who was responsible for dewatering the critical reach. Thus, by entering into an agreement that was enforceable between the Montana Water Trust and the landowner, we were able to ensure the water was protected in stream in the critically designated reach.

MWT limits its use of such short-term agreements to projects where enforcement is not typically an issue and where ecological benefits are clear with the hope of establishing a long-term relationship in the future. However, as discussed in the following section, the cumbersome change of the use application process, as applied to private instream water leases, results in a hindrance to restoring streamflows across the state.

III: MOVING INTO THE SECOND DECADE OF PRIVATE WATER LEASING: FUTURE CONSIDERATIONS

The private leasing law is entering its second decade and MWT its fifth year of operation. During this time, we have helped demonstrate the effectiveness of water leasing as a conservation tool for restoring streamflows throughout the state by working within the system of prior appropriation.

Within this timeframe, MWT has developed many projects that show that fish and farmers can coexist and both benefit. We recognize the importance of agriculture and healthy watersheds to Montana's economy and culture. We are helping to pioneer an evolving approach that meets the needs of
Montana and Montanans and preserves what is unique and important to this land. In pursuing our mission to benefit landowners, streamflows, and communities in the next decade of the leasing law, we have the following considerations.

With the new rules governing change applications, the ability of water right holders to change the nature of their water rights has become immensely more difficult. The process initially was such that an individual water right holder could navigate through the process without any assistance, except a DNRC water right specialist. To change a water right, landowners should hire a consultant or work with MWT to protect the landowners’ water right because of the complexity of the process.

Because this change process has grown exceedingly difficult, MWT undertakes the change of use process free of charge for participating landowners and ensures that their historically used water rights are protected. It is important that landowners spend their valuable time tending to their operational needs, not wading through this complex process. A positive impact of undergoing a change of use process is that participating landowners’ water rights will be well-prepared for final adjudication.

The ability to quickly respond to drought conditions is not currently an option under the leasing law. Because the change of use process through the DNRC can take anywhere between six months to two years to complete, private organizations such as MWT are limited in responding to stream needs on an emergency or other basis. The “Diversion Reduction” conservation tool has allowed MWT to address this hole in the statute, but only to a limited degree. In the future, MWT would like to see a process in which short-term agreements are expedited through the process to allow for protection and enforcement of the instream water right, though always subject to the pending final adjudication.

Enforcement of instream water rights is an important consideration as well. In most streams and rivers in Montana, landowners are not specifically measuring the amount of water they are taking. In order to prepare for a growing demand on this scarce and limited resource, it will be important for water users to measure specifically their water use and to have a system of enforcement on the streams. In areas that have water commissioners, water use is limited during low water to ensure that those historic senior rights are met, but not exceed to ensure that everyone’s rights are protected. As adjudication proceeds and water demands increase, we will work to see that in areas where MWT works that there are systems in place to protect water rights, both consumptive and instream, through a delivery and enforcement system.

The ability to address widespread dewatering of important streams and the needs of farmers and ranchers is enormous. To date, MWT has been working to develop pilot projects that can be replicated throughout the state to achieve economic and ecological benefits. However, to tackle this problem on a large scale, MWT will need to develop its organizational capacity
as well as partner with groups throughout the state. In the next decade, MWT will work to grow its capacity to meet the need and address the allocation of a scarce resource, water, to meet competing needs of Montana.