

Water Marketing 101: What Montana Can Learn From Other States About Water Banking

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Executive Summary

Water banking is a tool used in many western states to manage water rights. Montana is not one of these states, as it currently does not have a water bank. The purpose of this report is to review different water banking programs in Texas, California, Idaho, Colorado, and Washington to determine what aspects may be applicable to Montana water marketing.

What Makes a Successful Water Bank?

A water bank acts as a broker for people wishing to sell (or lease) water rights and those wishing to purchase rights. Though banks may take on several different forms, their ultimate purpose is to facilitate water rights transactions. This review found that many different factors contribute to a successful bank. The seemingly most important element of a workable water bank is tailoring the program to fulfill local needs. In Idaho, five regional banks operate under customized regulations to create a successful, frequently used system. A report by the Washington University System finds that a major criticism of the Yakima Water Exchange, a bank in Washington, is that the program does not fit local values and needs. *Banks tailored to regional needs seem to work better.* Other components of successful water banks include varying options for lease length, available data and resources to assist water users, expedient transaction time, and an effective pricing system.

Water Marketing in Montana?

Montana does not have a water banking program, but instead, three leasing laws to assist in the transfer of water for instream flow augmentation. *Would Montana benefit from water banking?* Completing a lease in Montana can take several years. Streamlining the process through a water bank could be more efficient. Montana could use a drought water bank during dry years to transfer water to areas where it is most needed. California successfully mitigated drought conditions in the early 1990s with a state-run water bank. A water bank may also assist the state in increasing instream flow and water for fisheries.

Still, it is important to consider if the transfer will adversely affect other water users, and it may be harmful to speed up this process. A bank takes the expertise and administration of several professionals, and Montana may not currently have the resources to properly staff and fund a bank. Finally, there has not been a great public outcry to change Montana's current water laws or to create a water bank. Many rural water users prefer to use traditional and informal ways of trading water rights, and they prefer not to involve the state in the process. *Montana may not be ready for a full-fledged water bank.*

The Future of Water Marketing in Montana

Water banking may or may not be right for Montana, but the state can make a few additions to enhance the current leasing program. *Montana can increase the data and resources available to the public, especially online resources.* By informing water users of the leasing process and by providing tools to assist

users in transferring water, the process may be more efficiently used. Finally, continuing discussion of water banking in Montana will help determine if it has a place in the state.

Part I: Water Banking in Other States

Introduction

Water marketing has long been used in the Western United States to regulate and allocate water rights. As states continue to evolve and grow, it becomes increasingly necessary to manage water rights efficiently. Today, states like Montana must balance the water demands for agricultural districts, growing municipalities, and instream flow and fishery purposes. This report describes and analyzes water-marketing schemes in five other states (Texas, California, Idaho, Colorado, and Washington) in an attempt to determine the future direction of Montana water management.¹ As water continues to become a more precious asset, Montana will have to address certain issues about how to allocate water rights. By understanding how other states are responding to this subject, Montana can determine what future action should be taken regarding water marketing. Are Montana's current laws adequate, or is there a better way to transfer water?

Montana Code sections 85-2-407, 85-2-408 and 85-2-439, made into permanent statute by the 2005 Legislature, allow for up to ten-year leases of water rights. This can be accomplished in three ways, through the Private Water Leasing Pilot Program, the Upper Clark Fork River Basin Instream Flow Pilot Program, and the Fish, Wildlife and Parks Leasing Pilot Program. One aspect of Montana's leasing laws is that any private individual or group may apply for a water right lease. Therefore, in addition to the Upper Clark Fork River and Fish, Wildlife and Park State programs, the private organizations Trout Unlimited and the Montana Water Trust have been actively leasing water for instream purposes. In addition, individual Montanans may apply for a change or transfer of an appropriation right, thereby creating means of permanently transferring water rights.²

The Upper Clark Fork River Program, Fish, Wildlife and Parks Program, Trout Unlimited, and Montana Water Trust have successfully used the current laws to transfer water for instream purposes. Individual parties may use the leasing laws or create private contracts. Still, a review of activities in other states could give insight to the effectiveness of Montana's current water marketing laws.

One of the water management tools that other states are exploring is water banking. In the text *Water Banks: Untangling the Gordian Knot of Western Water*, Lawrence J. MacDonnell aptly generalizes water banking as:

“an institutionalized process specifically designed to facilitate the transfer of developed water to new uses. Broadly speaking, a water bank is an intermediary. Like a broker, it seeks to bring together buyers and sellers. Unlike a broker, however, it is an institutionalized process with known procedures and with some kind of public sanction for its activities.”

A water bank brings together multiple sellers and multiple buyers who are interested in changing water rights. A bank is sanctioned by either a public or private group.

Montana is generally regarded as not having a water bank, though the fluidity of the leasing programs makes it difficult to define exactly what the state does have. The leasing laws allow for the transfer of water rights. Though private programs such as Trout Unlimited and state programs like Fish, Wildlife and Parks purchase and then use water rights, they do not technically qualify as water banks. This is because these programs do not resell the water on an open market; they use it themselves or direct the usage of instream flow.

Water banks may take numerous forms. The design may be tailored to a state's individual needs, and consequently, each water bank is different from most others. In order to make comparisons, several specific aspects were considered in the review of the different water banks. Some questions asked include:

- How many completed transactions?
- What is the average cost in \$/acre-foot/year?
- What is the geographic span of the bank? Is it statewide, basin-wide, or inter-basin?
- What is the operational time frame? Drought years only, continuous, split-season?
- How flexible is the bank? Does it offer short term leases, long-term leases, and permanent purchases.
- Is the bank state run, non-profit private, or for-profit private?
- Is the price of the water fixed or market based?
- Does the bank buy and sell water or only facilitate transactions?
- Is there a bank registry of willing buyers and sellers?
- What efforts have been made to involve the agricultural community?
- How long does it take to secure a transaction?

In examining the structure, successes and failures, and benefits and disadvantages of water banking in other states, we can get a better idea of the direction of Montana's future water marketing.

Texas

Texas Water Bank

The statewide Texas Water Bank was established in 1993. Its role is to provide an online registry of willing buyers and sellers. The bank itself is not involved in purchasing or transferring water rights; its sole purpose is to facilitate transactions and to help private parties through the technicalities of water marketing.³ The Texas Water Development Board oversees the project.

The Texas Water Bank's structure is very flexible and allows for nearly every type of transaction. The bank facilitates both in-basin and out-of-basin transfers.

Any person may deposit any amount of water into the bank for sale or lease. The seller may deposit the water into the bank for any length of time. The seller determines the price at which the water will be sold. The options for transferring water are endless.⁴ The only additional charges incurred by individuals using the bank are a \$50 deposit fee and 1% of the total sale. These fees are used to offset administrative costs of the program. Once the water is deposited, it has a one time, ten-year protection from reclamation by the state.

Despite the flexibility of the Texas Water Bank, there has been only one transaction. In 1997, water being used for agricultural purposes in the Guadeloupe River Basin was transferred to municipal uses in that same basin. The determined price was 396 \$/AF. This transfer was completed through a five-year lease that had the possibility of extension.⁵ However, if this lease that drew water from the San Marcos River has been extended, it has been done so privately, without the facilitation of the bank. One item worth noting is that the water was initially deposited into the bank on March 4, 1997, and the transaction was completed within the year. Though there is no way of knowing for certain, the bank's facilitation may have been a factor in the speed of the transaction.

Texas Water Trust

Also in 1997, Senate Bill 1 established the Texas Water Trust to address environmental objectives in water transfers. Previously, Texas had no provision for instream flow and fishery augmentation. The Texas Water Trust, an entity of the Texas Water Bank, functions by accepting donations to be reallocated for instream purposes. This program also has seen minimum use, with the state Parks and Wildlife Department making the only contribution up to date.⁶

Additionally, the Texas Water Bank has the authority to establish regional water banks. Any local region can develop a water bank under the guidelines and assistance of the statewide bank. To date, there has been no interest in creating local water banks.⁷

The future development of the Texas Water Bank will be slow at best. Currently, the Texas Water Development Board has no budget to advance the program. It is making no effort to market the bank to sellers or buyers, and as a result, it is little known as an option for water transfers. Matt Nelson of the Texas Water Development Board says that Texas has no plans to expand or change the current operation strategy of the bank.⁸

Benefits and Disadvantages of Texas Programs

Texas has a program with many options, allowing for individuals to tailor their transfers to their needs. With the possibility of developing regional water banks under the state water bank's guidelines, Texas can involve communities in water marketing and customize regional banks to meet local needs. The online registry allows easy access to water marketing data. However, Texas' passive stance on development will continue to hinder the number of transactions it completes.

Texas anticipates that “To a large extent, [future transfers] can be accomplished with minimal state administrative oversight.”⁹ Until the state creates a budget for water banking and attempts to market the program, the Texas Water Bank will probably remain stagnate and unused.

California

California Drought Water Bank

California was one of the first states to develop a workable water bank. The state had suffered from a severe five-year drought, and in 1991 Governor Pete Wilson issued an executive order to the California Department of Water Resources (DWR). The order required the DWR to develop a plan to quickly and efficiently pool the region’s water and to deliver much needed water to the surrounding municipalities. The result was the California Drought Water Bank.

Within the year, the bank was operational and acting as a market clearinghouse for water rights. The California Drought Water Bank (CDWB) sought out potential buyers and sellers. By the end of the year it had completed 351 contracts with individual water sellers.¹⁰ The bank purchased 390,000 AF of water.¹¹ Most of the water came from agricultural sources, and nearly half was acquired by farmers fallowing their crops and selling the unused irrigation water. The CDWB purchased this water for 125 \$/AF. The water was purchased for one-year leases, and it did not affect the status of the seller’s water rights.

The bank then sold the water to surrounding municipalities and urban areas, including San Francisco, for a price of 175 \$/AF. The water was delivered from the sellers in Northern California to the buyers in Southern and Central California through a system of aqueducts.

One problem that the 1991 bank encountered was unexpected March rains that helped quell the drought. Some of the buyers backed out and the bank was left with 265,000 extra AF of water. This problem was remedied for the 1992 bank by requiring buyers to sign a contractual agreement with the bank before the CDWB purchased the water.¹² Another change made in the second year of operation restricted the fallowing of fields for irrigation water. The bank did not function during the 1993 season. It was back in operation for the 1994 season but has not been used since that year.

Given the emergency situation and the expediency at which the CDWB was created and operationalized, it was quite successful. However, if the bank were to continue for a longer period of time, more consideration would need to be given to environmental and socioeconomic impacts.¹³

California Dry Year Purchasing Program

A more recent project in California’s water marketing schemes is the California Dry Year Purchasing Program (DYPP.) The state contracted sellers to provide

water for lease. This program, in effect from 2001 until 2004, allowed for one-year leases to be sold at the fixed prices of 75 \$/AF or 100 \$/AF. Again, the water came from the state's northern irrigation districts and was transferred to Southern and Central areas of California.

Though the DYPP was successful for those buyers who had needs for an immediate increase of water, the total volume of water transferred decreased each year of the program. In 2001 the sellers provided 138,806 AF of water, but by 2003, the sellers only contracted 11, 255 AF of water.¹⁴ In 2004, the Northern California Water Association, a coalition of sellers, was invited to discuss the structure of the DYPP with the state.¹⁵ The Northern California Water Association's executive director sent a letter declining the invitation and stating, "It goes without saying that DWR [Department of Water Resources] cannot purport to represent the interests of potential water suppliers and potential buyers on pricing and other business terms for water acquisitions for the Program."¹⁶ The idea of state involvement in water marketing concerned the coalition of sellers.¹⁷ Without the sellers' support for the program, it could not continue into 2005.

State Water Project and Central Valley Project

Today, though there is no operational water bank in California, there is still a fair amount of water marketing, and the state remains involved. The State Water Project (STW), run by the state of California, and the Central Valley Project (CVP), run by the Federal Bureau of Reclamation, are active in transferring water in Central California. Created 1960 when Californian voters passed the Burns-Potter act to construct the program, the California SWP provides for municipal, agricultural, and other purposes. Water is stored and delivered through a system of reservoirs and aqueducts. The SWP has 29 long-term contractors who trade water freely without submitting an application to the state.¹⁸ The state supplies the contractors with a specified annual water allocation from snowpack runoff and rainfall that has been collected and stored. In return, the contractors help pay for the initial and maintenance costs of the programs, including principle and interest bonds, power, and labor costs.¹⁹ The CVP works in a similar manner and has 250 long-term contractors. The Federal Bureau of Reclamation oversees the CVP.

Individuals in California who wish to exchange water rights are allowed to do so through a one-year lease. The private parties submit a proposal to change their appropriate rights, along with an Environmental Impact Report, to the California State Water Resources Control Board. Following approval, the parties usually rely on the state's aqueduct system to complete the transfer.²⁰

Benefits and Disadvantages of California Programs

California was a pioneer in finding resourceful solutions for the state's water needs. The state was quick to take action in an emergency drought situation, and it set an example of how to create a short-term solution for drought

mitigation. The State Water Project and Central Valley Project are unique ways to supply water and warrant further study. Even though California has not instituted a successful program that has remained in place for a long period of time, the state continues to be open to advances and experiment in the water-marketing field. Bob Aldridge of the California Department of Water Resources has said that should the need arise, California would seriously consider reinstating the California Drought Water Bank.²¹

Idaho

Idaho has a long history of water banking, and its first formal bank dates back to 1979. In 1979 the Idaho Water Resource Board was given the task of administering the Board's Water Supply Bank and the Rental Pools. This program continues today. The water banks are the only mechanism for temporarily leasing water in the state; it is not done privately. All permanent water transfers go through the state, but the banks are not involved in these transfers.

Idaho Rental Pools

In Idaho, there are two different banks that deal with different types of water. The Board's Water Supply Bank, or the State Water Supply Bank, transfers "natural flow" rights only. In addition to this statewide bank, five local Rental Pools have the authority to deal only with stored water rights. An innovative aspect about the Rental Pools is that they are allowed to tailor their programs to local needs. Each Rental Pool follows specific operating guidelines in accordance with the State Water Supply Bank, but every Rental Pool has a local committee and its own Watermaster to determine specific rules.²² The local committee, appointed by the State Water Resource Board, determines the price guidelines for its bank.

The largest of the Rental Pool districts is the Snake River Rental Pool (Water District #1.) This Rental Pool comprises eight reservoirs and sees the most activity of all the Rental Pools.²³ This district often utilizes all the available water for rent. Compared to the price of water in other states, the Snake River Rental Pool is incredibly inexpensive at 3 \$/AF for in-basin transfers and 10.50 \$/AF for out-of-basin transfers.

One major disadvantage to the Snake River Rental Pool, as well as all the other Rental Pools except the one in the Lemhi River Basin, is the state's "last to fill" rule. As the Washington Department of Ecology's "Analysis of Western Water Banks" summarizes:

"Under this rule, water leased for non-irrigation uses outside the district are the last to be refilled in subsequent years. In effect, the last to fill provision creates a disincentive for depositors to lease water for environmental uses."

Irrigation is the priority use and instream flow augmentation is the last priority use. Currently, the Bureau of Reclamation leases some water for environmental purposes, but sellers are actually penalized if they lease their water toward instream uses and the reservoir fails to refill in the following year.²⁴ To counteract this disincentive to provide water for environmental interests, the Lemhi River Rental Pool (Water District #74) was created in 2001 and began to accept natural flow rights to be used for instream flow use. While the purpose of the other Rental Pools is to provide water for private irrigators, the Lemhi Rental Pool leases water only to the Bureau of Reclamation for instream flow purposes. At 174 \$/AF, the Lemhi Rental Pool has the highest rates in the state.

Idaho State Water Supply Bank

The State Water Supply Bank is the entity that generally oversees natural flow water rights. Water may be deposited into this statewide bank for an indefinite amount of time. Numerous lease applications and leasing guidelines are available online.²⁵ Once deposited, the rights are protected from cancellation or reclamation by the state for as long as they remain in the bank. Water may be leased from the bank for any amount of time. If the lease is for one year, the review process is usually forgone.²⁶ For a longer lease, the Water Resource Board reviews the application, and for leases of more than five years, public notice of the transaction must be given. To help cover administrative costs, the bank takes 10% of all sales.

Though the bank allows sellers to indicate their minimum price, most people follow the state's current rental rate guidelines. The current rental rates for the State Water Supply Bank is 11 \$/AF. This fixed price is established to mirror the prices of the Rental Pools.²⁷ Currently, Idaho's banking program can not support a market priced bank because of its "first in, first out" rule. This rule says that the order that the rights are leased must be the order in which they were deposited. Therefore, because the rights are released in order of deposit instead of by price, there can be no competitive market system.²⁸

Cynthia Bridge Clark, Associate Engineer for the Idaho Water Allocation Bureau, says Idaho is continuing to review and develop its program. Its main objective at the moment is to make data available to the public through online resources and water registries. Idaho's Department of Water Resources website already has several downloadable forms, including applications to lease or purchase water. The state is also reviewing some of the bank's rules, such as the indefinite protection of rights from reclamation. They are looking at updating the application process so the state is provided with more information, such as the purchaser's specific intent of use.²⁹

Benefits and Disadvantages of Idaho Programs

Idaho's history of water banking gives it more experience than most other states. As a result, Idaho transfers large amounts of water relatively cheaply. The inexpensive transfer rate probably contributes to the numerous transfers. One of

the most positive aspects of the bank is that the Rental Pools can be customized to fit local needs, promoting more involvement. Idaho also offers an array of online resources to assist individuals in banking. The largest flaw in Idaho's banking program is the disincentive to provide for environmental purposes because of the last to fill rule. Fortunately, the Lemhi River Rental Pool is taking steps to stimulate instream flow transfers, and the rest of the state will be able to look to this Rental Pool as an example. Idaho has taken an active stance in developing banking by providing for instream flow, updating lease applications, and investigating groundwater banking. Idaho's continuation to explore and develop new methods for its banking program is perhaps the most important reason it has been successful and will probably continue to be successful.

Colorado

Arkansas River Basin Water Bank

A drought situation also invoked the state of Colorado to develop its pilot banking program, the Arkansas River Basin Water Bank Pilot Program, in 2001. The theory behind the bank was that a farmer could temporarily redirect his water toward municipal uses without having to relinquish his water rights for a long-term period.³⁰ As a result, the bank deals only in one-year leases of stored water rights.

To make a deposit, a farmer or other seller simply posts online the specifics of his water rights. The information provided by the farmer includes the volume of water being leased, the dates available, the price, whether it will be leased by auction or a first-come first-serve basis, and the seller's contact information. A willing purchaser then approaches the state with the seller's information and the state completes the transaction by verifying the historical use of the water and reviewing the application for the lease.³¹

A significant aspect of Colorado's bank is that it allows for out-of-basin transfers. Since two-thirds of the available water is west of the Rocky Mountains but two-thirds of the demand is east of the mountains, out-of-basin transfers allow the water to go where it is needed.³² Water is transported from reservoirs in the west, through tunnels in the Rocky Mountains, and finally it reaches the eastern half of the state. Residents of western Colorado are naturally opposed to this out-of-basin transfer, but Ken Knox, Chief Deputy State Engineer of Colorado, predicts that though the process is slow, it will eventually be successful.

In spite of the seemingly easy accessibility of the Arkansas River Basin Water Bank, there have been no transfers thus far since the bank went into operation in 2003. One of the reasons is that the drought conditions lessened. Another, is that at 500 \$/AF to 1000 \$/AF, the asking prices were far too expensive for any potential buyers.³³ Finally, an important factor in the bank's inactivity is that the driving force in the market is municipal interests. Cities such as Denver, who would potentially utilize the bank, are looking elsewhere to secure more long-

term water rights.³⁴ These cities would prefer to not deal in one-year leases, the only contract that the bank currently offers.

Colorado's water bank is accessed and used almost entirely online, and the state provides many other online resources for individuals who wish to transfer water privately. These include overviews of the process and several downloadable sample contracts that can be adapted for use by individual parties.³⁵

The state's many online water transfer resources assist private buyers and sellers who make the majority of the state's transactions. Because of the transparency of the bank, it is suspected that many people gather data from bank resources and then transfer water privately, without the bank's facilitation. In a 2005 survey conducted by the Colorado Division of Water Resources, the state found that Data Management was the second most important service offered to Colorado water users.³⁶ In addition, one of the Colorado Division of Water Resources' main goals for 2005 is "To maintain and provide accurate and timely data and information related to water resources."³⁷

Many people in Colorado complete informal or private transfers; in fact, Colorado historically has had great amounts of informal water marketing. To make a private transaction, the lessor must submit a proposal to the state describing the volume of water, the source, the length of lease, and other concerns. For a processing fee of \$1300, the state submits it to the same review as the Arkansas River Basin Water Bank would use. The same changes are made privately, and the bank's facilitation is simply not used.³⁸

Many Colorado water users would prefer to pay the \$1300 processing fee to the state or simply make private contracts than utilize the water bank. In fact, one water right that was listed in the water bank registry and then withdrawn was eventually sold through a private contract.³⁹ The Upper Arkansas Water Conservancy District criticizes the bank for leasing water too easily without enough time for the public to object a transfer. Farmers and ranchers feel that the process takes too long to complete for one-year contracts. Colorado is facing opposition from several sides in its attempt to establish a working water bank.

As in Montana, prior appropriation rights and junior and senior water rights are a tricky subject in Colorado. This is an important factor in determining how much water a person is entitled to. Additionally, Colorado is working on involving the agricultural community, who are comfortable with their traditional and informal ways of transferring water, in the discussion and creation of new water marketing schemes.⁴⁰ And like Montana, groups in Colorado are exploring new ways to increase instream flow. Trout Unlimited is one of the groups that is very active in instream flow and fishery augmentation there.

Benefits and Disadvantages of Colorado Programs

Colorado's online registry and resources may be something that Montana should mimic. Making data easily available to the public could help get more people involved. According to the public opinion survey, the Colorado public values having accessible data, and the state is making an effort to provide that information. Inter-basin transfers help make the bank flexible, but the bank may have to consider providing longer leases to cater to urban needs. Colorado sees much opposition in a state-sponsored water bank, and will have to continue to discuss the issue with communities and local leaders. By making the program appeal to farmers and ranchers while it provides for municipal interests, Colorado can create a successful water-banking scheme.

Washington

Yakima Water Exchange

The state of Washington is currently working hard to develop an effective water bank. In 2001, the Yakima Water Exchange was created to facilitate transfers in the Yakima Basin to mitigate drought conditions. The bank, which calls itself an "exchange" due to a legal technicality, is regulated by the Washington Department of Ecology.⁴¹ Its main goal was to reduce the time required to transfer water so the drought situation could be quickly assuaged.⁴²

The Washington Department of Ecology (WDE) reviews all applications for water. The bank is flexible, and it provides for leases from one to ten years, permanent transfers, and split-season transfers. The sellers are generally farmers forgoing their water deliveries, often following land and selling the unused irrigation water.⁴³ As with Montana, municipal interests do not drive the market in this water exchange. The majority of the buyers use the water for irrigation or instream purposes.

The pricing system is market based. On short-leases, the WDE determines the price. However, on long-term leases and permanent transfers, the WDE hires a private evaluator to assess the value of the water.⁴⁴ Prices have ranged from 0 \$/AF to 495 \$/AF.

When forming the Yakima Water Exchange, a priority was the speed and efficiency at which the bank could perform transfers. As a result, the bank usually completes permanent transfers in less than a year. Temporary transfers are often completed within a few months.⁴⁵

The WDE works closely with the Federal Bureau of Reclamation (BOR). The BOR has operated a storage type water bank in Washington since 1905. Today, the BOR works in conjunction with the WDE on the state's water acquisition programs. The BOR is also focused on obtaining water for instream purposes, and it accomplishes this sometimes by actually purchasing the land rights instead of simply purchasing the water rights.

Review of the Yakima Water Exchange

Like Montana, Washington must take into account the needs of the agricultural community when both buying and selling water. A review of the banking program done by the University of Washington and Washington State University in 2004 suggests that the majority of farmers in the Yakima basin strongly oppose the Yakima Water Exchange.⁴⁶ In fact, some farmers who lease their water request to remain anonymous in order to avoid disapproval from their peers.⁴⁷ The University report criticizes the bank for not tailoring itself to benefit the local needs of the Yakima Basin (the WDE manages water acquisition programs in two other basins under the same regulations.) Other problems that community members mentioned included excessive bureaucracy and delays when submitting applications, doubt that the forgone water actually was being used elsewhere, and a general distrust of the government's involvement in water transfers.

Along with customizing each program to local needs, the University's report suggests that the WDE create stronger relations with local leaders and promote their banking programs with the farmers' interests in mind. By providing the community with accurate scientific data of streamflow and fish population, farmers may be more willing to trust the WDE. Another idea proposed that the state work with trusted agricultural groups, such as the Department of Agriculture, to establish water banking. In response to the report, the WDE is working on marketing its program and educating the communities who might benefit from a water bank.⁴⁸

Benefits and Disadvantages of Washington Programs

With a fairly developed banking program and many people involved in investigating the subject, Washington has emerged as a leader in exploring the capabilities of water banking. Like Idaho, Washington seems to be actively pursuing the development of a viable banking program. Both the WDE and the University System have produced valuable assessments of water banking. Comparing the Yakima Basin Exchange with water exchanges in other Washington basins that operate using different procedures may indicate what creates a functional bank. Washington may have to change its program, though, until it finds one that merits support from the rural population. Washington's main challenge may be building trust with potential rural bank users. Though faced with several challenges from the agricultural community, this may be a reason to watch Washington's progress, for Montana will probably see similar challenges emerge as it, too, considers water banking.

Successes and Challenges of Other States' Programs

Other states have tried different forms of water banking with varying degrees of success. While the success of a bank cannot be determined until it is operational, it appears that there are some overall factors that make some banks work better than others.

One of the most important factors is a bank's pricing system. It is conclusive that Idaho's inexpensive water prices result in many more transactions than Colorado's extremely high water prices. Though it is unclear whether a fixed price system or a market price system is more successful, it is helpful to have guidelines at which to price the water.

The geographic spread of the bank is also important. Idaho successfully operates a statewide bank, and California has used one as well, though it has not permanently sustained a statewide bank. The wide span of the statewide Colorado and Texas banks may be one reason that they have seen fewer transactions. Basin-wide banks seem to work better than statewide water banks. The regional Idaho Rental Pools have facilitated many transactions. States seem to improve their banking programs when they try to localize the process, as Washington has recently attempted to do.

Another variable of a water bank is how much the government or administrator is involved. Again, Colorado and Texas simply provide a bulletin board for listing water rights. These states are not as actively involved in the process as California, Washington, and especially Idaho. It is evident by the strife between the California Dry Year Purchasing Program and the Northern California Water Association that state involvement in water marketing can be a contentious issue. Though this is an obstacle to address, it appears that states with some governmental involvement have a more successful water bank.

The availability of data and resources regarding banking may be another factor in successful transactions. This item is different from others regarding water banking because additional resources may not increase the use of the bank; in fact, it may cause more transactions to take place without the bank's facilitation. However, Colorado's public opinion survey showed that data management is important to water users.⁴⁹ Colorado and Idaho appear to be making an effort to inform water users, and that may lead to the success of their programs, both state-sanctioned banking and private transfers. Contrary to these states, Texas, again, seems to be lacking the information system to promote water banking. Even though resource availability may make the water bank more transparent, it helps the water users to be informed.

One common criticism of water banks is that they do not provide the length of lease that the buyer wants. For example, municipal buyers in Colorado want to secure leases for longer than one year. Banks that offer flexible lease lengths can provide service to more people. Another problem is that bureaucracy often prevents people from using the bank for shorter leases. One of Washington's main goals is to shorten the time it takes to complete a transaction. If the approval process is more timely, then more people may consider the water bank an efficient tool to transfer water.

Part II: Montana's Current Water Marketing

Montana

As previously mentioned, Montana has no water banking activity but does have the capability to lease water. With three leasing laws, 85-2-407, 85-2-408 and 85-2-439, there are various ways to transfer water in Montana. During the 2005 legislative session, Montana Code 85-2-408 was passed into permanent statute. This statute allows individuals and private groups to apply for transfers of water. To date, Montana leasing laws have focused on moving water toward instream flow rather than agricultural or municipal uses. As in most other states in this study, Montana allocates its water based on prior appropriation and beneficial use. Applications for water transfers may be submitted to the Department of Natural Resources and Conservation (DNRC) for review and approval.⁵⁰

Trout Unlimited

One of the private groups using Montana's leasing laws is Trout Unlimited's Montana Water Project.⁵¹ Trout Unlimited (TU) uses Statute 85-2-408 to transfer water from agricultural use to instream flow use. TU works with the Fish, Wildlife and Parks and local watershed groups to determine which basins are in need of instream flow augmentation and who might be willing to lease water.⁵² Then the group begins a process of negotiation and discussion with the potential sellers. It may take several to gain the community's trust and create an atmosphere in which people are comfortable talking about transferring water away from their land.⁵³

Two of the most important issues that TU considers before transferring water are the history of use and possible adverse effects on other water users. By looking at the history of use, TU verifies that the water has been used as claimed. Often the amount of water claimed to be in use exceeds what is actually being used.⁵⁴ By verifying the history of use, TU determines how much water can be leased. After the historic use has been verified, TU determines whether the proposed lease will benefit instream flow and fisheries.⁵⁵ Though leasing water for instream flow is considered beneficial for a stream, the DNRC must assess whether the transfer will adversely affect any other water users. It must be determined if anyone in the area of the transfer or downstream will be harmed.

Once TU submits a lease application to the DNRC, it can take from six months to two years to complete the review process. The time from initial contact with the lessors to approval by the DNRC can often take four or five years.⁵⁶ The most common pricing system used by TU in Montana is a simple exchange of cash for water. However, the group negotiates each transaction individually, sometimes accepting donations, and other times offering other services such as irrigation improvement installation in exchange for water.⁵⁷

When asked if the creation of a water bank would benefit Trout Unlimited and Montana, Stan Bradshaw, Council for Montana Trout Unlimited, had several suggestions. A water bank or streamlined process could cut down on the time it takes to complete a transaction. By cutting down on the bureaucracy, it would take fewer than the current five years to increase instream flow. Government guidelines for creating basin-wide banks may be more useful than developing a statewide water bank. Private groups or local public entities could use government guidelines to establish local banks that could be tailored to the area's need. The more local the bank, the more likely it will be used.⁵⁸

Montana Water Trust

Another private group involved in transferring water toward instream use is the Montana Water Trust.⁵⁹ This group works primarily in the western part of the state but is beginning to expand east of the divide. To facilitate discussion, the Montana Water Trust (MWT) speaks with landowners, local community leaders, and senior water right holders in the area. The MWT primarily seeks farmers who are willing to donate unused water for instream flow purposes, though the group also purchases water.⁶⁰

MWT currently has 15 contracts for water, though not all were obtained through the Montana leasing law. Because of the aforementioned bureaucracy involved with the DNRC, the MWT only works with them on leases of more than two years. On leases of two years or shorter, the MWT makes private contracts with landowners.⁶¹

John Ferguson, Executive Director of the Montana Water Trust, says that there may be a place for water banking in the state. One of the MWT's goals is to teach farmers how to efficiently use their water resources.⁶² Ferguson would like to see a bank with an environmental objective that facilitates water transfers between farmers as well as for instream use. The crucial part in developing an effective bank is the bank's structure. The values of the agricultural community must be taken into account when discussing water marketing and instream flow augmentation. Generating discussion with communities and their local leaders may determine if a water bank is in Montana's future and how it would be set up.⁶³

Montana Fish, Wildlife and Parks

The third group in Montana that leases water for instream flow purposes is the Montana Fish, Wildlife and Parks (FWP.) FWP uses Statute 85-2-436, a pilot program created in 1989 for that department. According to Kathleen Williams, former FWP Water Resource Program Manager, the best way to find sellers is to get to know the community and find out who is interested.⁶⁴ Often it can be difficult to find a suitable seller, someone with senior water rights in the right geographic location. And again, the adverse effects of a transfer must be considered when reviewing a seller's proposal. The time from initial contact of a suitable seller to lease approval can take from two to ten years.⁶⁵

Part of the reason that the process takes so long is that the DNRC is backlogged. Lease application approval may not be the department's top priority.⁶⁶ But Williams says that centralizing the leasing process in a single state-run water bank may not be the answer. Some people like having the option of leasing through three different groups in Montana. If the government were to create a statewide process for banking water, it would have to carefully design the program to be well funded and well staffed with employees educated in the many facets of water banking such as biology, economics, and hydrology.⁶⁷ This expansion may not currently be possible. Instead of expanding Montana's water marketing or even promoting the use of current leasing laws, a simple step would be to educate. Williams found that in making Montanans aware of the leasing laws and how FWP uses them, potential sellers became more informed and less untrusting of the process.⁶⁸

Every year FWP submits a report on its leasing program. The 2003 Annual FWP Progress Report outlined several future goals for the leasing program.⁶⁹ FWP hopes to coordinate efforts more with TU and the MWT. They also hope to create a public dialog to involve Montanans in the subject of instream flow. Another area that FWP wishes to develop is its pricing mechanism of leasing water.

FWP's current Instream Flow Specialist, Bill Schenk, points out that while the leasing laws are one tool in transferring water toward instream flow, they may not be enough. The leasing laws may be too limited, and water banking may not necessarily help the situation.⁷⁰ Schenk says that Montana must search for a long-term solution to dedicate water toward instream flow. This may be accomplished by acquiring water rights and preserving them in the way that land spaces are set aside for preservation.⁷¹ An important aspect of increasing instream flow is to provide water for the long-term, rather than temporarily leasing water for streamflow augmentation and then withdrawing it. Temporary stream augmentation may actually cause more harm than good.⁷² To create a permanent solution, Montana may have to look for tools other than leasing and banking to secure instream flow water rights.

Part III: The Future of Montana Water Marketing

Water Bank Design

A well-thought out set up would be key in creating a successful water bank in Montana. Because of the size and variable geography of the state, Montana might benefit from basin-wide water banks rather than a statewide bank. Unlike Colorado and California, Montana does not have the physical infrastructure like aqueducts and tunnels to transfer water over a great distance. Basin-wide banks could be government entities like the Idaho Rental Pools. They could be set up individually by public and private organizations under guidelines created by the state. Or, like California's Central Valley Project and State Water Project, basin wide banks could consist of long-term contractors who freely trade water.

Montana might consider a drought-year bank like California's. This would allow the state to step in during drought emergency situations, but during normal conditions individuals could maintain the previously agreed upon methods of privately leasing water. A standard process could help alleviate drought conditions for farmers more quickly. Some irrigation districts and watershed groups in Montana already have informal drought mitigation plans.⁷³ A state-sanctioned bank could help administer and provide tools for these drought condition agreements.

The state would have to make a pricing system for the bank. Montana could allow the basins to customize a standard price like the Idaho Rental Pools. The state could hire an outsider to appraise the value of the water as Washington often does. Colorado and Texas allow the seller to determine the price. As observed from other states' banks, the pricing system may be a major factor in determining how functional a bank is, and there are many pricing schemes.

Other considerations involved in the development of a water bank include the following:

- Who would administer and oversee the bank?
- Would the bank purchase water or simply facilitate transactions?
- What is the length of leases that the bank would provide?
- Would the bank protect against cancellation of water rights?
- What transaction costs would the bank incur and what are the start-up costs?
- Would the bank have an environmental objective?
- How would the public access the bank?

Feasibility

Could Montana sustain a water bank at this point? As with many of the other western states, Montana may face opposition to water banking from the agricultural community. For water banking to be successful here, the state would have to focus on the values and needs of farmers and ranchers. Unlike Colorado

or California, Montana has no big city that is a driving force in water marketing.⁷⁴ Therefore, the needs of the agricultural community would be the driving force in Montana's bank.

With so many private water transfers, there is no way to record the transaction costs of leasing water today.⁷⁵ There is no way to assess the economic advantages or disadvantages of water banking versus the present leasing program. It may be difficult to raise support to fund the up-front costs of developing, administering, and overseeing a water bank.

Inter-basin transfers will probably become a contentious issue when discussing the possibility of a water bank. Inter-basin transfers would be helpful considering the state's size and geography of climate and population. Even though water may be best used in another basin, Montanans generally oppose transferring water away from their own basin. And unlike Colorado and California, Montana does not have the physical infrastructure in the form of tunnels or aqueducts to support most inter-basin transfers at this point.

Currently, there is no great public outcry for water banking or new means of securing water rights. The leasing statutes in place may be sufficient. When asked if there is a place in Montana that would benefit from a water bank, Mike McLane, Planner for the Montana Water Management Bureau, suggested that the Hungry Horse Reservoir might be a place to explore water banking. Water rights could be stored and released from this reservoir through a streamlined process facilitated by a water bank.⁷⁶ However, most of Montana seems to find the current leasing process sufficient.

Conclusion and Suggestions

One thing Montana could do now to enhance its leasing program is make data and resources more available to those wishing to transfer water rights. An online registry could help sellers and buyers initiate contact with each other. Using Colorado as an example, online sample applications and contracts could also be helpful to private parties interested in leasing water. Because additional resources make the market more transparent, they may not foster an environment for a water bank. As with Colorado, individuals may gather data from the state water bank and then make transactions privately. However, if Montana chooses to continue with its leasing laws, extra resources may help private transfers be more efficient and accurate.

Montana may not be ready for a full-fledged water bank. The important thing is to facilitate discussion about the subject to determine what is the best course of action for Montana. As most of the interviewees reiterated, working at the community level with local representatives helps determine what is best for the general public. A program that looks good to the communities involved in transferring water is helpful in propagating the idea of water banking. In

continuing to talk about this subject, the best path for Montana's water marketing can be determined.

Further Research

Water banking is a very complex subject that warrants research from many different angles. An economic assessment of different marketing programs would be helpful in determining the financial benefits and disadvantages of water banking. The different pricing systems should be examined further, as they appear to be an important factor in the bank's success. Another consideration is whether there would be environmental repercussions if we streamlined the system to transfer water more quickly. An interesting upcoming subject will be whether Montana's leasing laws are affected as more of Montana's water rights are adjudicated by the state. In talking to communities and interviewing both potential buyers and sellers, we could get a better sense of whether the public even has a desire to change our water leasing laws. Further research of the subject will help determine whether Montana would benefit from a water bank.

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California— <http://www.dwr.water.ca.gov>
Idaho— <http://www.idwr.state.id.us>
Colorado— <http://water.state.co.us>
Washington— <http://www.ecy.wa.gov/programs/wr/wrhome.html>
Montana—<http://www.dnrc.state.mt.us/wrd/home.htm>

² Montana Code § 85-2-402 and 85-2-403.

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- ¹⁵ The Northern California Water Association can be found at <http://www.norcalwater.org>
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http://www.publicaffairs.water.ca.gov/swp/contractors_intro.cfm.
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California Department of Water Resources:

<http://www.dwr.water.ca.gov>

The California State Water Project:

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The Central Valley Project:

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